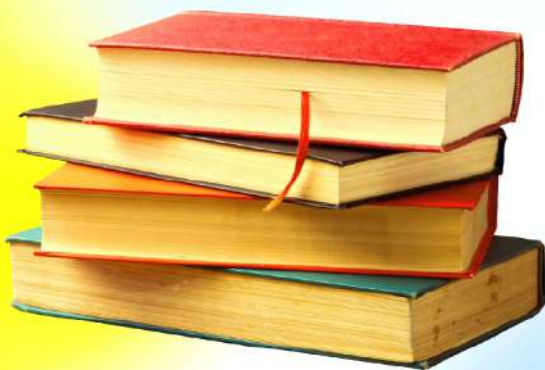


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## Studies in Indian Place Names



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## A STUDY ON AWARENESS OF ROAD SAFETY AMONG YOUNG ADULTS

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### ABSTRACT:

It is common knowledge that Road Transport is very crucial for the movement of goods and people which makes the backbone of the economy and sustainable development. In the same way, it is the system that has always been accompanied by a great deal of problems from tragic road accidents, which have been increasing year after another. Quite many people have reported death and other millions of injuries because of road traffic accidents. Road safety is associated with consequences are ranging from social and economic; it affects individuals, families and the country. Especially, in that, Young Adults aged 18-30 are the most victims affected by road accidents. The study was interested to examine the awareness regarding road safety among young adults.

**Keywords:** *Road safety, Causes of Road Accidents, Behaviour Patterns of young adults, Road Safety improvements*

### Introduction

Road Accidents anywhere in the world are always disastrous. They are always associated with the loss of lives of healthy and productive citizens as well as property. Young Adults were killed or injured in Traffic Accidents left behind family members without sufficient sustenance. Nearly 3,400 people die on the world's roads every day. Tens of people are injured or disabled every year. Young Adults are among the most vulnerable of road users. The study will focus on assessing the Knowledge and Behaviour towards Road Safety among Young Adults.

Road Safety is one of the important functions being looked after by the Transport Department. It would endeavour of the Government to prevent Accidents. Some precious lives and increase safety for all Road Users. Increase in the number of Accidents is mainly due to non-observance of Traffic Rules by drivers and carelessness and negligence on the part of road users.

It is also due to an enormous increase in the number of vehicles on road. In today's world, Road and Transport have become an integral part of every human being. Everybody is a road user in one shape or the other. The present transport system has minimized the distances but it has on the other hand increased the life risks. Every year road crashes result in the loss of lakhs of lives and serious injuries to millions of people.

In India itself about eighty thousand people are killed in road crashes every which is thirteen percent of the total fatality all over the world. The man behind the wheel plays an important role in most of the crashes. Most of the crashes occur either due to carelessness or due to lack of Road Safety awareness of the road user. Hence road safety education is as essential as any other basic skills of survival. According to WHO (2018), approximately 1.35 million people die each year as a result of road traffic crashes. Road Safety is primarily meant about the protection and security of all those who travel on roads. But approximately half of all the deaths on the country's roads are among vulnerable road users- motorcyclists, pedestrians and cyclists and all those people were someone's child, parents, sisters, brothers and so much more.

Road Accidents are an increasing problem throughout the world, which have immense Sectoral and economic impacts besides the irreplaceable loss of life. Every year estimated 1.2 million people are killed and up to 50 million are injured or disabled on the world's roads (Bliss 2004), and a further 3,500 people are added to this huge fatality fatigue every day (UNECE 2008, p, 35). The problem of deaths and injury as a result of road accidents is now acknowledged to be a global phenomenon. The International Federation of Red Cross and Red Crescent Societies have described the situation as a worsening global disaster destroying lives and livelihoods, hampering development and leaving millions invulnerability (Jacobs et.al, 2000). India will move up to sixth place in cause of death, road crashes (Jacobs. et al, 2000, p, 3). Furthermore, without appropriate action, road traffic injuries (RTIs) are predicted to escalate from the ninth leading contributor to the global burden of disease in 1990 to the third by 2020 (Kopits and Cropper 2005, p, 1). Road Traffic Accidents (RTAs) pose a significant burden on the health care system in India with a high unit of pocket medical expenditure. Awareness about this public health problem is necessary to combat it. According to Hassan (2018), Youth is the

permanent wealth and health of society. They are the precious treasure of any developing nation. For that reason, the author describes how road traffic accidents affect youth worldwide both physically and psychologically, and how they affect their families.

According to Sowjanya (2016), it is a common sight to see a group of people curiously huddled around a crashed vehicle on a busy road, but nobody can be seen taking any substantial action to help the victim. Most accident witnesses remain clueless or have little knowledge of the steps to take to provide relief to the victim.

India has recorded one of the highest rates of road accidents in the world, making road safety a major cause of concern. Nearly 10% of the world's road accidents occur in India with a fatality rate of 1,20,000 every year. These alarming statistics underline the importance of basic road safety awareness and also of life-saving techniques. The Government of India in a 2015 report revealed that 2,270 people were killed in 8,359 crashes due to 'driver's inattentiveness'. Deery and Love (1996) have identified that there is a significant difference between drivers' age regarding driving style and driving skill. Driving training improves driving skills but many deficiencies have been found in driving training.

Naing et al. (2008) have observed that there are three levels of driving tasks such as human, vehicle and environment. At the human level, there are many factors which are associated with driving task such as loss of consciousness, acute medical condition, falling asleep, inattention, distraction, cell phone use, emotion, careless, mood and aggressive driving. Hauer (1999) has explained that drivers' attention decreases in stable driving situations such as driving on a straight road and going around a bend, and intersections when drivers change directions or overtake. Barkley (2004) has described that 72.9 percent of distractions occur in stabilized traffic situations.

It is also found that road travellers are more likely to be involved in road accidents due to inattention in the age group of less than 25 years and between 45 and 64 years. Bailly and Chapon (2006) have found that there is a significant association between inattention and driving experience regarding road accidents. It is seen that inexperienced drivers are more sensitive to

the occurrence of road accidents. According to Bhat, (2016) There are steps we the civilians and the government can undertake can take to help prevent accidents. Many accidents can be prevented and in those that are not preventable, the damage could be lessened. This study was carried out to assess the knowledge and practices of road safety among young adults.

### **Aims and objectives**

Aim of this study is,

1. To find out the awareness level of road safety among young adults by assessing the Basic Knowledge of Road Safety.
2. To identify and know from the respondents about what are the Major Causes of Road Accidents.
3. To analyse the Behaviour Patterns of Road Users while driving and also to find out the ways to improve Road Safety.

### **Methodology**

The research design use in this study was descriptive with a quantitative approach which enables the researcher to determine the young adults' knowledge and behaviour towards Road Safety. This study was conducted in the Vandranthangal Village, outskirts of Vellore City. The Sampling method used by the researcher was Non- Probability Sampling with a convenience sampling technique in which the investigator uses his choice which he considers are most useful. The researcher has chosen the sampling size as 100 members who are in the age range from 18 to 30.

### **Findings and Discussion**

The age of the respondents are separated into two parts. One is the respondents from the age range 18-24 and another part of the respondents are from the age range of 25-30. The majority of the respondents (60%) are under the age range of 18-25. The majority of the

respondents are male (69%). and less females (31%) have participated in the study. Eighty-one percent of the respondents belongs to Hinduism and sixteen percent of the respondents belongs to Christianity and three percentage (3%) of the respondents belongs to the Islamic religion.

Education qualification plays important role in this study. It shows 31% of the respondents were stopped their studies at 10<sup>th</sup> Std. And 17% of the respondents were stopped their education at 12<sup>th</sup> Std. Then 45 % of the respondents are studying diploma course. And only 7 % of the respondents have finished the degree course. This shows that all the respondents are educated and nearly half of them are working. And 21 % of the respondents were not working and 31 % of the respondents were studying and they all commuting every day. This study also shows that the majority of the (75%) respondents' family income was above 10000 and 22 Percentage of the respondents' family income was above 20000. They all have reasonable and good living conditions with the majority of them having their own houses.

### **Basic knowledge of road safety**

The majority (71%) of the respondents using two-wheeler mostly for commuting and 26 % of the respondents were using buses or autos and only 3% used car for travelling for day to day needs and work. The majority of the respondents (93%) were having average knowledge about road safety and 7% of the respondents were having a very good awareness of road safety. Hence it is clear that all the respondents are having reasonable awareness about road safety.

Road crashes must seem to have an impact on the individual's life experience and part of this also added in this study, because then only the respondents will able to understand that road accident is a serious life and health concern. The majority (88%) of the respondents have seen road accidents and that has made them think about road safety concerns.

Only a few respondents felt that road safety awareness is necessary for un-experienced road users but the majority (97%) of the respondents were told that road safety is important for everyone.

When asked about travelling 3 or more members on the two-wheeler is safe or is it right most of the respondents (81%) answered that is not safe however some of the respondents felt that it is right and also safe to travel in that fashion. The majority of the respondents felt that carrying heavy loads also sometimes causes road crashes.

The majority (61%) of the respondents tell that four members travelling in the auto are safe. All (100%) of the respondents are well known that they have to leave a way for the ambulance. The majority (87%) of the respondents were aware that it is not right to use a phone during driving. It is the basic knowledge that everyone knows the speed limit on the highway. Here is the interpretation of knowledge of respondents on speed limits on the urban highway in India. The majority (58%) of the respondents tells that 80km/hr is the speed limit on the urban highway. Some (25%) of the respondents tells that 60 km/hr is the speed limit on the urban highway.

The majority of the respondents have good knowledge of the penalty for driving without a license and the signboard. There is a divided opinion on road safety half of the respondents told that drivers are responsible for road safety and another half believed that the government and traffic police are responsible for road safety.

### **Causes of Road Accidents**

The majority (93%) of the respondents agree that driving defective vehicles leads to road accidents and the good majority of the respondents disagree for it is right that drivers being reckless or in a hurry and not concentrating on roads while driving. The majority (74%) of the respondents accept that drivers thinking anywhere and Drivers distracted by mobile phones while driving are the important factors in the causes of road broad accidents. Here most (93%) of the respondents agree that most of the respondents get distracted by mobile phones. This study also shows that poor road infrastructure is one of the factors that cause road accidents. Most of the respondents do not agree that it is not that much dangerous to travel too fast. Overconfidence while driving was included in this study because the study area consists of very young adults where there are inexperienced on driving tasks but with more overconfidence. The majority

(87%) of the respondents tells that overconfidence is not needed. The major reason for death and injuries among the youth is an important factor in this study, and most of the respondents accept that road accident is the cause of death among the youth.

### **Behaviour Patterns of Road Users while Driving**

The majority of the respondents said that often they getting angry by another driver on road, particularly the respondents aged between 18 and 24. Many of the youngsters used to cross the junction when they stopped at the red signal and this study shows some evidence that (42%) of the respondents occasionally crossed the junction when the red signal is on. Some drivers in the rural area have the habit of the horn intentionally and sometimes habitually this behaviour pattern is studied here shows that the majority of the respondents occasionally sound their horn to indicate, overtake and also annoy someone.

Many young drivers are used to race very faster to beat the other driver when the traffic signal is on, this factor is included in this study and it shows that half of the young drivers are involved in this kind of act rarely. Nearly half of the respondents said that they disregard the speed limits and the majority of the speed with blow horns to overtake others.

Using a helmet and seatbelt while driving is the most important factor that will save the driver's life and also from severe injury during road crashes. Driver's responsibility is that they should wear helmet and seatbelt but this study shows that although, many respondents aware of this fact but only (42%) of the respondents rarely wear helmet/seatbelt and only eight percent of the respondents wear it regularly.

Changing lane without using indicator factor included in this study because most of the drivers not using their indicator to change their lane and turn. This study shows that the majority of the respondents occasionally change their lane without using an indicator. Nearly half of the respondents felt that it is not that much dangerous to take a slight risk to overtake any vehicle. Thirty-five percent of respondents did not stop at the call of the traffic police because of various reasons like driving without a license, without R.C, without a helmet and sometimes they travel

in a two-wheeler with more than two members. All most all respondents were aware that drink alcohol and driving are wrong and it will lead to accidents. The majority of the respondents felt and also experienced that driving with stress leads to road crashes.

Using a mobile phone while driving on the road is the most dangerous behaviour pattern which causes road crashes. The study shows that the majority of the respondents use mobile while driving, only 23% were never use their mobile while driving. The poor vehicle maintenance is also the factor which causes the road traffic accidents and this e study shows that 31 percent of the respondents were very rarely driven their vehicle with poor maintenance and the majority of them maintain their vehicle in good condition

### **Ways to improve Road Safety**

The majority (92%) of the respondents accepting that raising public awareness is important and 89% of the respondents expressed that strict implementation of law and traffic rules is an important way to improve road safety. Nearly73 % of the respondents believe that little more vigorous punishments or fine and also to cancel the driving license for the disobedient drivers. A very good majority of the respondents expected that it is important to construct proper roads and maintain it to improve road safety. Using the latest technology and monitor the road traffic through CCTV was emphasized by a very good majority of the respondents.

Finally the study shows the suggestion from the respondents to improve road safety; to avoiding mobile phone use while driving, to use helmet/seatbelt will improve road safety, to maintain proper roads, not to drink and drive, and to follow traffic rules will improve the road safety,

### **Conclusion**

Road traffic Accidents affect youth-adult worldwide and it is considered the main cause of morbidity and mortality around the world and India. This will be a global burden in the coming years if not resolved soon. This study concludes that awareness of road safety among the respondents is more. However, they have basic knowledge of road safety but their behaviour

patterns while driving on the road indicates that it is not a good behaviour to practice on the road while driving. Awareness generation and orientation towards road safety issues among the respondents should be done through periodic training and make them follow the rules. They were not aware that road safety is an essential part of public health and accident prevention. It affects many be a physical, psychological and economic loss.

The research study revealed that the majority of the respondents have good knowledge of basic road safety but they are not following them in their daily life. Strict enforcement of laws and much more behavioural change is essential for control the risky driving habits of young adults.

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## **CHILDREN ATTITUDE, BEHAVIOUR AND TELEVISION COMMERCIALS – A STUDY ON CHILDREN IN VELLORE**

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### **Abstract**

TV has a conspicuous task to carry out as an incredible and powerful mode of correspondence and diversion. TV advertisements encourage a decent stage for advertisers to advance their items. TV programmes and plugs are seen and appreciated by all areas of individuals, regardless of whether youthful or old, rich or poor, educated or ignorant from the metropolitan and rustic portion of the general public. The advertisements that appeared on Television have a fascinating and permanent effect on the children generally. The sponsors use eye-catching stunts like humour, appealing music, animation characters and jingles to catch the consideration of children. In numerous groups of the advanced days, children are the choice factor for buys in the family. This purchase is decided to a large extent based on the advertisements viewed by the children on television and as they review them when they see the item in the racks of the stores. Children speak to a significant fragment of buyers. TV advertisements enable stores to sell a more prominent measure of their stock.

***Keywords:** TV advertisements, humour, jingles, purchase decisions*

### **INTRODUCTION**

More youthful children are effectively affected by what they see and don't have as much comprehension of the message behind the advertisement. They are all the more trusting and accept that the item that appeared in the advertisement will be equivalent to it shows up on TV if they somehow happened to get it. Advertisements additionally help small kids to find new items in their needslist. Small kids use advertisements to make arrangements for things they need and

wish to claim sooner rather than later. More established children perceive that humour, music and activity are utilized to catch their consideration, just as helping them to recollect the advertisement. More seasoned children appreciate advertisements that they find engaging, whether or not they are keen on what is being promoted.

Children of the days of yore, before the creation of the electronic devices and the headway of innovation, were all the more mingling and individual creatures. Their previous occasions were cultivating, playing with children in the area, music, craftsmanship, creativity, understanding books and visiting with their companions. The children invested a pitiful measure of energy in staring at the TV. They were not presented to electronic devices and media of correspondence to a huge degree. Then again, children of the current time are clients of contraptions, for example, phones, tablets, TV, and so forth for different purposes like messing around, talking, watching recordings, tuning in to music and perusing for their examinations. Children, at an exceptionally youthful age, even before they know to talk, figure out how to utilize devices and sit in front of the TV and the advertisements. The introduction to innovation improves the engine and psychological aptitudes of the children. They work with their appendages and the perspective goes on. They figure out how to accumulate data, measure the data and come to results. Their memory power additionally improves. Even though these are the great impacts, horrible impacts (Sundus, 2018) like a compulsion, interruption, hyper action, misery and medical problems are additionally striking.

Television surveys and watching advertisements on TV have great just as a terrible impact on children. Accordingly, the scientist has attempted to carry on this exploration in Vellore to see if the children of Vellore are influenced positively or negatively because of TV advertisements. This examination additionally attempts to recognize the connection between TV advertisements and the buying conduct among children.

### **OBJECTIVES OF THE STUDY**

1. To study the socio-economic profile of children and parents in Vellore district.
2. To measure the existing children's attitude and behaviour towards advertisements.

3. To identify the behavioural change of children due to Television advertisements.

## **RESEARCH METHODOLOGY**

The exploration configuration is experimental since the investigation is led utilizing both expository and analytic examination types. The Vellore region has been decided with the end goal of the study. Essential information has been gathered from the guardians of the children of Vellore region. Auxiliary information was gathered from different distributed and unpublished sources which incorporate Journals, Magazines, Publications, Reports, Books, Dailies, Periodicals, Articles, Research Papers, Websites, Bank Publications, Manuals and Booklets. The convenience Sampling Method was applied to gather essential information. The respondents with the end goal of the examination are guardians of children between the age gathering of 6 to 14 years. The scientist deliberately picked the respondents whose children sit in front of TV advertisements. The populace for the examination is from an obscure populace of guardians of children in Vellore area. The example size for the examination is 100 respondents. As spadework, the analyst arranged an Interview Schedule and regulated it to around 10 children (being 10% of the example taken for study). The Interview Schedule comprised of inquiries on the subtleties of socio-economics of children, inquiries on TV seeing conduct of the children, their fascination towards advertisements and the impact of plugs on the buying of items in the family. Because of the reactions got from the children, a very much organized poll has been readied.

A very much organized poll has been utilized with the end goal of the examination. The information was gathered from guardians of children of the age gathering of 6 to 14 years, sitting in front of the TV advertisements. The specialist met guardians in barely any zones, for example, Ranipet, Katpadi, Sathuvachari and Vellore city to recognize the highlights of children in the Vellore region. This has empowered the scientist to gather the information needed for the investigation.

## **LIMITATIONS OF THE STUDY**

The investigation is done in Vellore area, TamilNadu. Subsequently, the after-effects of the examination can't be generalised among the children at the national level. The attitude and conduct of children rely upon different mental components. Children vary from one another relying upon their current circumstances, school and socio-economics in different places of the nation. The population being obscure, the specialist needed to restrict the example size to 100.

The model taken for the current investigation is ABC (Affect, Behavioural and Cognitive ), proposed by Eagly and Chaiken (1998) Model. The components of attitude are taken by this model. There might be different factors likewise that influence the attitude and conduct of children towards TV advertisements.

## REVIEW OF LITERATURE

**Tamilchelvi and Suresh Kumar (2011)** contemplated the impact of TV advertisements on youngster wellbeing and its effect on family spending. The examination uncovered that children helped in settling on choices while looking for garments, food things, FMCG things and design adornments. Children watch promotions with animation characters and create enthusiasm for shoddy nourishment and undesirable sodas. The investigation has clarified a positive relationship between time went through with TV and its effect on purchasing conduct and its impact on family spending. Guardians are needed to disclose to their children about the untrustworthy issues in advertisements and improve their legitimate thinking.

**Rathod and Parmar (2012)** have endeavoured to know the consciousness of children about confectionary items by staring at the TV advertisements and to contemplate the relationship between the inclination of children and segment variables of sex and age. It was discovered that children stare at the TV for 1-2 hours a day. They knew about the advertisement of chocolates like Five Star, Cadbury, and so on TV advertisements impact children purchasing inclination of confectionary items when contrasted with other modes of promoting.

**SujathaKhandai and BhawnaAgarwal (2012)** pointed in their examination to relate the effect of TV ads on the brand inclination and an ultimate conclusion of the child market, to quantify the effect of companion tension on children buy conduct and to comprehend the degree of hassle power utilized by children to convince their folks to satisfy their needs. Television

advertisements affect the brand inclination of children. Children favour well-being drinks, inexpensive food and game shoes dependent on brands. When contrasted with parent impact, peer impact greater affects the brand inclination by children. The creators have utilized the term 'teenagers' for children of the age gathering of 10-14 years.

**Khan and Syed (2014)** have surveyed the children of the age group of 10-15 years in Karachi to find out the impact of television advertisements on the attitude of the children. Some variables attitude such as truth, annoy, like, persuade, believe and best were taken for the study. The study revealed the results such as children of Pakistan understand the advertisements well, they are aware of the good and bad effects of advertisements shown on TV and TV commercials explain the features of products that are advertised.

**Sheikh and Juliet (2016)** aimed to find out the level of influence of TV ads on the children in Palayamkottai and also the factors that influence their attitudes towards television advertisements, particularly confectionery product ads. The paper stated that TV advertisements affect the confectionery purchase of children.

**Methaq Ahmed Sallam and Fahad Ali Algammash(2016)** have revealed that Consumers attitude towards advertisement has positive and significant effects on their attitude toward the brand as well as on their purchase intention. Attitude toward a brand partially mediates between attitude toward advertisement and purchase intention. Findings imply the importance of advertisement to be adopted by practitioners in their strategic marketing as it helps in communicating positive brand image and influencing consumers' intention to purchase the advertised product. In this study, the said relationships amongst the three variables are revisited. The difference lies in the use of Saudi consumers, a developing country compared to developed countries in past studies, in addition to the use of a real product advertisement rather than make-believe the advertisement. This provided the first insight into Saudi consumer's behaviour.

## **THEORETICAL FRAMEWORK OF THE STUDY**

TV seeing among children begins at an early age even before 2 years when they don't know to talk and are not have the option to recognize the program and advertisement appreciate the music, sounds and lights moving quickly over the promotions. Talking, TV advertisements are methods of connecting, for example, little children. As the children develop, they figure out how to separate the TV program and the advertisement. They begin preferring the characters underwriting the item and like the item. The specialty of influence as expressed in the Elaboration Likelihood Model of Persuasion (Petty and Cacioppo, 1986), advertisement message contains the components of Distraction, Repetition and Cognition. The advertisement on TV occupies the kid from its work and grabs its eye. The kid invests energy in viewing the advertisement. At the point when the advertisement is rehashed, the kid gets careful of the jingle and attempts to chime in with the business and mirror the character in the business. This influences the psychological part of the youngster. As expressed in the ABC (Affect, Behaviour, and Cognition) Theory, (Eagly and Chaiken, 1998), TV advertisements affect the temperaments and feelings of the watcher. The senior watchers may come over the impact, however, the more youthful personalities are continued by the impact. They partner the article with their musings and convictions and play out their activities likewise.

The TV seeing behaviour of children varies with age. Children early of under 2 years. Television seeing is done as a family function. Guardians go with their children while sitting in front of the TV and clarify the significance of advertisements when children enquire (Walker, 2011). Plugs give data (Gokhan, 2016) to the watcher about the accessibility, cost and innovation utilized in the item. The Horlicks advertisement expresses the presence of Malt that outcomes in an individual being "Taller, more grounded and more honed". The Horlicks KesarBadam business clarifies the wealth and quality given by the utilization of almonds consistently. The Colgate advertisement with the motto of brush two times per day has profited children to build up the propensity for brushing twice consistently. The data given by promotions like Dettol and Lifebuoy cleansers and sanitizers underlines the significance of cleanliness and in the wake of viewing the advertisements; children wash their hands after playing and before eating food. This propensity creates in children simply because of the advertisements state. They tune in to TV more than to guardians. The data about the coming of diapers and clean napkins additionally is credited to TV advertisements. The utilization of such things is a blessing to infants of working

ladies and themselves. Television plugs remarkably affect the buying choices taken in a family. The greater part of the advertisements includes children to advance their items (North E., 2003). Utilizing children in advertisements makes a positive brand building and attitude towards a specific brand and item inclinations. (Malik &Guptha, 2013). The survey conduct of children escalates with the presence of children in advertisements and the reviewing limit upgrades. In light of the apparent multitude of ads and because of the conversations with the friends about the equivalent, children of any age will in general request items saw by them through advertisements. The recurrence of a similar business being broadcasted and the recurrence of conversation with the companions make a goal in the psyches of children to have the item being publicized or burn-through the palatable being promoted. So they set forth their requests before their folks. At times, children watch an advertisement, similar to an item, see the item with their companions at school or in the area and afterward place an interest in the item. At the point when children shop alongside their folks, they review the advertisements when a similar item is shown on the racks of stores. So it turns out to be simple for them to request the item. Buying turns into the choice of the children, who are thusly affected by TV ads. Roedder, Sternthal, and Calder, 1983 expressthat children around 12 years drive the buying of their family. A perception certifies to Wells and LoSciuto, (1966) among children and their folks throughout shopping in a general store, uncovered that children were effective in affecting their folks' acquisition of sweets and grain in 52% and 61% of the endeavoured occasions, separately.

When the interest is advanced, guardians might get the item. Children utilize their irritate capacity to persuade their folks and win the skirmish of buying the ideal item. This makes them charmed. They feel large and in charge and offer their thanks towards their folks. Children become dutiful and tune in to their folks for quite a while until the following interest emerges because of some other advertisement. They help the guardians in the family tasks and sit to concentrate when the parent orders. Children may cheerfully impart the experience to their companions and brag about the ownership of the item.

The unfavourable circumstance of not fulfilling the interest is more terrible. This makes a negative impact on the conduct of the children. Children, who are raised with broadmindedness, acknowledge another arrangement for their interest. Hardly any children get redirected that a few children who are delicate natured and loner, continue scowling for extended periods, don't

converse with others in the family, skip suppers, decline to study, and wait till the item is bought. Some different defiant children show the inconvenience of their folks' choice by indicating fits, yelling at individuals in the house, genuinely harming the relatives or kin. This prompts an influence on purchasing the item. This prompts resolute conduct in children. They set up their psyches that they can prevail upon circumstances through resolute conduct.

## CONCLUSION

The investigation has endeavoured to discover the effect of advertisements, especially T.V. advertisements on the attitude and conduct of children in Vellore city. Children are not sincerely solid. They are resolute and don't consider the other individual themselves. They will in general be childish and unadaptive to unfriendly circumstances. Even though they invest a great deal of energy with the media, they can score well in their scholastics, as the example of schooling is understudy neighbourly. Varying media amusement should be an elective method for perusing and open-air playing. Children ought to be given differentiation about the real world and augmented reality. There ought to be programs broadcasted on T.V. which develop solid virtues in the children. Children in India ought to be empowered to be free after choosing what is correct and what's up. They ought to be instructed about the custom and legacy of the nation thus ought not to be persisted by the way of life of the west. Negative practices, for example, being obstinate for a specific item and indicating that scholarly execution ought to be shortened. The guardians ought not to accept all that their children request. The children should feel that guardians strive to procure and each paise they spent is important.

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## PRODUCTS PREFERRED BY CHILDREN OF VELLORE AFTER WATCHING ADVERTISEMENTS ON TELEVISION– A STUDY

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### **Abstract**

Television advertisements have a significant role to play to influence children to buy products advertised. Children get attracted to the music, pictures and characters that present the product through the advertisement. Children come across various media advertisements. Though the world has become digital, children are ardent users of smartphones and are viewers of advertisements shown on the internet, television commercials have a prominent role to persuade children to prefer products. A study has thus, been conducted to identify the factors that influence children to like television commercials and also to identify the products that they demand on watching the commercials.

**Keywords:***Children, Television advertisements, digital*

### **INTRODUCTION**

An advertisement is a powerful tool in the hands of marketers. Advertisements serve as a platform where the sellers meet the buyers. Producers prefer various media to promote their products. Various media of advertising are Television, Radio, Newspapers, Magazines, Outdoor advertisements like hoardings, balloons, etc. Among the various media of advertisements, television is the major form of advertisement that reaches people of all ages. Kids like to watch advertisements due to their method of presentation. The slogans and jingles bring a great impact on the minds of the children. Cartoon characters and film artists endorse products in many advertisements. This excites them stimulating their interest to buy the products.

Children of the present era use many electronic gadgets such as smartphones, tablets, etc. for studying, playing, watching entertaining videos, etc. The usage of smartphones has increased also with the advent of online classes. In between these programmes, a lot of advertisements are played on the internet. But, children tend to skip the ad, as the option is available. In the case of television advertisements, children rarely skip the ad. They are attracted to the background music, picturization, characters and voice modulation. Kids, even before they learn to talk, can recognize products shown on T.V. through advertisements. They recall jingles and repeat them. The product also makes an impression in their mind. So, when they see the product again in stores or with their friends they demand the same.

### **STATEMENT OF THE PROBLEM**

With technology being ubiquitous, advertising and marketing becoming the order of the day, the author has understood the importance of television as a medium of advertisement. Further, the author also has attempted to identify the factors attracting children towards television advertisements, thus showing interest in finding out the products most preferred by children after watching television advertisements.

### **SCOPE OF THE STUDY**

The study is conducted among children of the age group of 6 to 14 years, who are residents of Vellore. The study is conducted on around 100 children from areas in and around Vellore.

### **OBJECTIVES OF THE STUDY**

- To study the demographical profile of the children of Vellore
- To analyze the factors that attract children towards television advertisements
- To identify the products that children prefer to buy after watching television advertisements

### **REVIEW OF LITERATURE**

**AyantunjiGbadamosi (2012)** has directed an investigation to investigate African children's attitudinal responses to TV advertisements. Discoveries propose that they like TV

publicizing according to its diversion highlights – particularly when the messages include children's characters, kid's shows, music, famous people and humor – and those advancing nourishments. They additionally get fervour from promoting messages that are introduced in the Pidgin language or potentially hilariously incorporated with nearby dialects. In any case, they have an antipathy for messages that startle them and those they think about as exhausting. It additionally recommends headings for the viable utilization of showcasing interchanges techniques comparable to TV publicizing for advertisers and different bodies with extraordinary functions in speaking with children, for example, government organizations and NGOs.

**Rathod and Parmar (2012)** have endeavoured to know the familiarity with children about confectionary items by sitting in front of the TV advertisements and to contemplate the relationship between the inclination of children and segment variables of sex and age. It was discovered that children stare at the TV for 1-2 hours a day. They knew about the advertisement of chocolates like Five Star, Cadbury, and so forth TV advertisements impact children purchasing inclination of confectionary items when contrasted with other modes of publicizing.

**SujathaKhandai and BhawnaAgarwal (2012)** pointed in their investigation to relate the effect of TV plugs on the brand inclination and an ultimate choice of the child market, to gauge the effect of companion tension on children buy conduct and to comprehend the degree of bug power utilized by children to convince their folks to fulfill their needs. Television plugs affect the brand inclination of children. Children incline toward wellbeing drinks, cheap food and game shoes dependent on brands. When contrasted with parent impact, peer impact greatly affects the brand inclination of children. The creators have utilized the term 'teenagers' for children of the age gathering of 10-14 years.

**Iyiola and Dirisu (2014)** have directed exploration to discover the conduct of children of a town in Nigeria. Their conduct at the commercial centre was evaluated and the impact of TV promotions on the children as a factor in family buys was examined. The children of the town requested items dependent on a characteristic intuition after staring at the TV advertisements. The guardians didn't comprehend the evil impacts of their wards watching advertisements. They

couldn't confine their children from requesting however their buying power was less. The article expresses that there is an immediate connection between ads and purchaser conduct.

**Abdul Hameed, et al., (2014)** have explored the effect of TV advertisements on children purchasing conduct. The creators have expressed that there is an immediate connection between TV advertisements and the buying conduct of children. The more advertisements the children watch, the more they are impacted to purchase a specific item and bug their folks to buy the equivalent.

**Narasimhamurthy (2014)**endeavoured to comprehend the effect of TV advertisements on children'sdemeanour and conduct, additionally to realize the television seeming propensity for children and to know their degree of comprehension of the advertisements. The creator additionally dissected the impact of TV promotions on the buying conduct of children. Children sit in front of the TV for schooling, sitting back, amusement, unwinding, to battle dejection and as a family standard. The investigation uncovers that children's conduct is affected by TV advertisements in deciding their way of life, family buy choices and interfacing with their folks. It is likewise discovered that the effect of TV advertisements is more prominent on children when contrasted with TV programs.

**Bahuguna R. et al., (2017)** introduced a paper to dissect the impact of TV advertisements on the conduct of children having a place with metropolitan and rustic territories of Bhopal. The paper gave accentuation on advertisements on dental wellbeing. Children between the age group of 1 to 18 years were taken for the investigation. The examination expressed that guardians and children of the metropolitan territories saw a greater amount of television advertisements. They had great information about oral wellbeing. They picked toothpaste dependent on the ads. Provincial people, then again, were less mindful about dental issues and cures.

**BylonAbeekoBamfo et al., (2019)** directed an overview in Ghana to survey the impact of TV advertisements on the buying conduct of children in Ghana. The examination expresses that children search for dependable, opportune and pertinent data about the items from TV

advertisements. The children of Ghana like to buy all items highlighted in TV advertisements. Along these lines, organizations should remember children's mentalities and casing their item situation procedures.

## RESEARCH METHODOLOGY

The researcher has prepared a well-structured questionnaire and distributed it to around 100 respondents of Vellore. The respondents taken for the study are parents who have children between the age group of 6 years to 14 years and watch advertisements on television. The convenience sampling method was used as a sampling technique. Statistical tools such as Simple Percentage Analysis, Pearson's Chi-Square, Mean and ANOVA to compare the equality of preferences, have been used to analyse the collected data and arrive at interpretations.

## DATA ANALYSIS AND INTERPRETATION

**Table 1**  
**Demographic profile**

Details	Frequency	Percentage (%)
<b>NUMBER OF CHILD / CHILDREN</b>		
One child	44	44.0
Two children	54	54.0
More than two children	2	2.0
<b>Total</b>	<b>100</b>	<b>100.0</b>
<b>AGE (IN COMPLETED YEARS)</b>		
6 to 8 years	32	32.0
9 to 11 years	37	37.0
12 to 14 years	31	31.0

<b>Total</b>	<b>100</b>	<b>100.0</b>
<b>CLASS</b>		
Std. I to Std. III	34	34.0
Std. IV to Std.VI	35	35.0
Std. VII to Std. IX	31	31.0
<b>TOTAL</b>	<b>100</b>	<b>100.0</b>
<b>SCHOOL</b>		
Private School	70	70.0
Government Aided School	21	21.0
Government School	9	9.0
<b>Total</b>	<b>100</b>	<b>100.0</b>

From table 1, it may be inferred that 54% of the families in Vellore have two children in their families and 44% of the families have only one child in the family, it is revealed that there are 37% of families in Vellore having children in the age group of 9 to 11 years and 32% of the families have children of the age group of 6 to 8 years and also 12 to 14 years, it is inferred that 35% of the children in Vellore study in class IV to VI, 34% study in class I to III and 31% study in class VII to IX and it can be interpreted that 70% of the children of the respondents study in Private Schools and 21% of the children of the respondents study in Government Aided Schools.

**Table 2**

**Table showing percentage analysis of the factors that attract children towards television advertisements**

S.No.	Forms of Advertisement	Very Rarely (%)	Rarely (%)	Never (%)	Often (%)	Very Often (%)
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1	Children are attracted to the ads shown on Television	1.3	14.8	7.3	36.1	40.6
2	Children are fond of the colourful ads on Newspaper	4.9	20.0	15.3	41.1	18.7
3	Children like the ads that come in Magazines	10.8	25.8	16.1	34.0	13.3
4	Children use I-Phones & Tabs and is captured by the ads	9.5	16.8	23.6	26.5	23.6
5	Children love to gaze at the Hoardings / Banners on the roads	8.2	23.0	17.8	38.7	12.3
6	Children get attached to the Hangings in stores	12.7	21.7	15.7	33.1	16.8
7	Children are crazy about the ads on Sign Boards	24.1	23.0	16.4	23.9	12.5

From the above table 2, it can be understood that 40.6% of the children of the respondents watch advertisements on television. This is followed by 23.6% of children attracted by advertisements shown on iPhones, Mobile Phones and Tabs, 18.7% of the children are attracted by the colourful advertisements of newspapers.

**H<sub>0</sub>:** There is no significant relationship between children being crazy about the ads on Television and the class in which they study.

**H<sub>1</sub>:** There is a significant relationship between children being crazy about the ads on Television and the class in which they study.

**Table 3**  
**Cross tabulation**

Details		Children crazy about the ads on Television					Total
		Very Rarely	Rarely	Never	Often	Very Often	
Class	Std. I to Std. III	14	10	3	3	4	34
	Std. IV to Std.VI	10	15	4	3	3	35
	Std. VII to Std. IX	12	9	7	2	1	31
<b>Total</b>		<b>36</b>	<b>34</b>	<b>14</b>	<b>8</b>	<b>8</b>	<b>100</b>

**Chi-Square Tests**

Details	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.285 <sup>a</sup>	8	.027
Likelihood Ratio	17.510	8	.025
<b>N of Valid Cases</b>	<b>100</b>		

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 21.16.

From table 3 and cross tab, it can be understood that the value of Chi-Square is less than 0.05 and hence, it can be inferred that there is a relationship between children preferring television advertisements and the class in which they are studying.

**H0:** There is no significant relationship between children being crazy about the ads on Television and the age of the children.

**H1:** There is a significant relationship between children being crazy about the ads on Television and the age of the children.

**Table 4  
Crosstabulation**

Details	Children are crazy about TV ads	Total
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		Very Rarely	Rarely	Never	Often	Very Often	
Age	6 to 8 years	10	8	6	5	3	32
	9 to 11 years	12	10	7	6	2	37
	12 to 14 years	11	9	5	4	2	31
<b>Total</b>		<b>33</b>	<b>27</b>	<b>18</b>	<b>15</b>	<b>7</b>	<b>100</b>

### Chi-Square Tests

Details	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.140 <sup>a</sup>	8	.020
Likelihood Ratio	18.810	8	.016
<b>N of Valid Cases</b>	<b>100</b>		

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 21.04.

Table 4 and cross tab states that Pearson's Chi-Square is less than 0.05 and hence there is a relationship between the age of children and their preference to watch advertisements on television.

**Table 5**

**Table showing percentage analysis**

S.No.	Articles asked for on seeing the TV ad	Very Rarely (%)	Rarely (%)	Never (%)	Often (%)	Very Often (%)
1	Toys and Games	4.1	19.4	13.3	33.5	29.7
2	Soft drinks	5.6	22.2	17.6	35.7	18.9
3	Health drinks	4.3	15.1	7.5	33.3	39.8
4	Chocolates and snacks	8.8	23.2	18.5	26.7	22.8

5	Stationeries , CDs	10.3	31.4	14.4	29.3	14.6
6	Toiletries	20.7	24.1	27.9	20.7	6.5
7	Clothes	11.0	24.5	12.9	30.5	21.1
8	Footwear	10.5	24.1	15.9	27.9	21.7
9	Accessories (watches, bracelets, chains, earrings, etc.)	9.9	19.8	8.8	27.3	34.2
10	Books	16.3	26.7	17.8	23.2	16.1
11	Vehicles (bicycles)	19.3	21.1	17.6	35.7	18.9

Table 5 deals with the preferences of children to purchase goods after watching the products on television advertisements. It can be understood that 39.8% of children wish to buy health drinks, 34.2% of the children like to buy accessories like watches, bracelets, etc. and 29.7% of the children prefer to buy toys and games after watching the products shown on television advertisements.

**H0:** The children give equal preference to buying Chocolates and Toys after watching television advertisements.

**H1:** The children give more preference to buying Chocolates and Toys after watching television advertisements.

**Table 6**  
**Table showing analysis of variance**

Details	Sum of Squares	df	Mean Square	F	Sig.
Preference to buy chocolates	93.553	4	23.388	18.075	.000
Preference to buy toys	685.781	96	1.294		
<b>Total</b>	<b>779.335</b>	<b>100</b>			

From Table 6, it is understood that the value of significance is less than 0.05. Hence, it may be concluded that children give equal preference to purchase chocolates and toys after watching television advertisements.

## **FINDINGS AND DISCUSSION**

- 54% of the families in Vellore have two children in their families.
- 37% of families in Vellore having children in the age group of 9 to 11 years and 32% of the families have children of the age group of 6 to 8 years and also 12 to 14 years.
- 41% of the children of the respondents watch advertisements on television, 24% of children are attracted by advertisements shown on iPhones, Mobile Phones and Tabs, 18.7% of the children are attracted by the colourful advertisements of newspapers.
- There is a relationship between children preferring television advertisements and the class in which they are studying.
- There is a relationship between the age of children and their preference to watch advertisements on television.
- 39.8% of children wish to buy health drinks, 34.2% of the children like to buy accessories like watches, bracelets, etc. and 29.7% of the children prefer to buy toys and games after watching the products shown on television advertisements.
- Children give equal preference to purchase chocolates and toys after watching television advertisements.

## **LIMITATIONS OF THE STUDY**

- The study is conducted among a selected sample of children, so it cannot be representative of a large population.
- The behaviour of children between the age group of 6 to 14 years is only taken for the study. Therefore, the behaviour of children below and above the age group is not identified.

## **CONCLUSION**

Television advertisements are predominant to attract the attention of children. They prefer to buy accessories, chocolates, toys, etc., after watching television advertisements. Children of all age groups like advertisements. Though there are many other media of advertising, television advertisement still has its flavour and preference. There is no specific preference of products preferred by children. As and when the need arises and whenever they watch the product advertised on TV, they prefer to buy and insist that their parents get the product they demand. It may be suggested through this paper that advertising agencies may be more ethical in featuring advertisements which are targeted towards children. The companies which are selling their products may also prepare advertisements which are relevant to children. Stringent policies may be made by the Government on the screening of advertisements on children's products.

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## **CORPORATE SOCIAL RESPONSIBILITIES OF LEATHER BASED INDUSTRIES (A STUDY ON IMPLEMENTATION OF ‘MOST’ ANALYSIS)**

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### **ABSTRACT**

Corporate Social Responsibility (CSR) is the sum of the voluntary actions taken by a company to address the economic, social and environmental impacts of its business operations and the concerns of its principal stakeholders. The European Commission (2011) published a new definition of CSR: “The responsibility of enterprises for their impacts on society.” Every CSR strategy requires the development and implementation of an employee communication program to convey the corporate direction, objectives, innovation and performance of its CSR efforts. These requirements are to be fulfilled through MOST Analysis. This research paper aims to analyse the concept of corporate responsibilities of leather-based industries using M.O.S.T. (Mission, Objectives, Strategy and Tactics) Analysis. This analysis attempts to answer the Mission, Objectives, Strategy and Tactics of CSR performed Leather-based industries. Critically evaluate the concept of corporate social responsibility, discuss how the M.O.S.T. Analysis helps to perform. We conclude that M.O.S.T. Analysis helps to the social responsibility of Leather Based Industries to the extent that circumstances permit, positively or negatively.

### **1. INTRODUCTION**

The government of India has made it mandatory for the firms to be responsible for the development of society and contribute to environmental sustainability by enacting ‘The Companies Act, 2013. Before this legislation, it was all up to the desire of the firms if they want to contribute to the development of the society or not and even they wanted to contribute to this practice of welfare they could spend any amount according to their will. But with the

enforcement of this act, all the companies making a specific amount of profit were brought under this ambit and the amount to be spent was also fixed and also the reporting of CSR activities was made mandatory leading to better accountancy of activities. Hence, it can be said that the majority of companies have accepted the fact that it owes its responsibility to the country, the society and the environment from the resources of which it is taking advantage and is prospering. Also over the years, it has been seen that CSR initiatives and the amount spent on them has increased and every year some new areas to be focused on are added to their core development areas.

M.O.S.T. analysis is a highly-structured method for providing targets to team members at every level of an organisation. Working from the top down ensures that you retain focus on the goal which matters most to your organisation. It is an extremely powerful tool, often used to give businesses and other organisations a fresh sense of purpose and capability. M.O.S.T. analysis is how you start to tie lofty ambitions and idealistic visions to top achievable goals and a successful business. As a system, it breaks down the communication barriers between different levels on the same team by asking at every stage “How does this help us reach our next level of targets?” In this way, every tactic employed has to be justified in terms of reaching strategies, which in turn must contribute to objectives, which must, finally, contribute to your mission. This analysis helps the company to reach its objectives of helping customers in the shop as soon as a problem arises, which contributes to the mission, selling more products. It can be applied to many areas of a business, from its most obvious applications in sales, marketing and business growth to internal processes and human resources.

A Corporate Social Responsibility Plan, or CSR Strategy, is a company’s way to give back to society beyond the for-profit strategies that determine your viability as a business. The concept of corporate responsibility helps extend the reach of a business and gives them a strategic way to impact the world in meaningful ways. There are four types of corporate social responsibility: direct philanthropic giving, environmental sustainability, ethical business practices, and economic responsibility. Some business integrates a combination of all four in their CSR Plan. CSR can positively impact employee attitudes and expectations by giving them a different perspective of their community and providing a new skill set. Participation in volunteer

work or environmental initiatives helps staff to grow personally, from new awareness of social issues to self-awareness of their environmental impact. CSR is not a one-off initiative. It needs to be fostered and embraced throughout the company. At positive Adventures, we believe strongly that businesses of all sizes should demonstrate social accountability, and we work with others to help implement programs that are effective and lasting.

## **2. CONCEPTUAL FRAMEWORK OF M.O.S.T. (MISSION, OBJECTIVES, STRATEGY AND TACTICS) ANALYSIS**

### **MISSION**

A good mission is ambitious and essential to broader business success. It could even be the entire reason for the organisations' existence. Once it has been established, the rest of the M.O.S.T. analysis can begin. The mission should be reviewed when they have succeeded or are found to be flawed. In accordance with laws, regulations and code of ethics as well as manners and customs, to improve and expand the manufacturing business raising the required standard, and contributing to the economy with environmental consciousness. An accurate relationship between respect for the rules, honesty, success and to abide by services and leather quality consistent with environmental sustainability. A preliminary step to create proposals and leather collections of articles.

### **OBJECTIVES**

A good objective sets a clear target to achieve within a tight time-frame. Objectives should be Specific, Measurable, Achievable, Realistic and Timely (S.M.A.R.T.), otherwise goal-creep will set in and objectives will become fuzzy and difficult to implement. Ideally, it will complement your other objectives to compound successes across the M.O.S.T. analysis. Objectives should be reviewed if they are found not to help the mission. The core objectives of CSR are the initiative of Leather Industries.

### **STRATEGIES**

A good strategy is the options open to achieve objectives. These may be quite complex, involving many tactics, and they may overlap to an extent. Strategies are an implementation detail. Strategies offer a way to quickly review and group the tactics implemented on the ground floor, so they make sense as methods to achieve your objectives. If strategies do not accurately describe the tactics being used or do not work directly towards your objectives, you should review them.

### TACTICS

A good tactic is small and S.M.A.R.T. with effective tactics, your strategies will quickly lead to completed objectives. Tactics are the methods you will use to carry out your strategies. They should be simple and relatively discrete processes that can easily be understood and carried out even by people who don't have a high-level overview of the M.O.S.T. analysis. If your tactics are inefficient and complex in practice, or there are unexpected obstacles to implementing them successfully, they should be reviewed.

*“Strategy without tactics is the slowest route to victory.*

*Tactics without strategy are the noise before defeat.”*

- Sun Tzu.

### 3. LITERATURE REVIEW

To design the present study scientifically, the researcher surveyed a good amount of research work and literature carried out in the area of corporate social responsibility. There are some of the reviews of the studies which had been previously undertaken in the field of CSR.

**Saiful Islam and ParagJafarSiddique (2014)** analyzed the performance of the leather industry in Bangladesh and made its comparison with India, Pakistan and China. They analyzed the export of the leather industry from the year 2004-2013. This study has revealed that Bangladesh had the potentiality to invest more and expand in the leather industry which substantially because of raw hides and skin exports.

**A.Sahasranaman (2014)**, in his article, “Some thoughts about India’s Leather sector Exports” opined that the Indian Leather Industry has been able to get its legitimate share of the world market for leather and leather products. When one compares the condition of the industry in the early 1980s with its current situation, there were many facets of the Industry that were truly impressive.

**Mwinyikione, Mwinyihija (2014)**, their discussion in their paper titled, “Emerging World Leather Trends and Continental Shift on Leather and Leather goods Production”, had yielded several fundamental issues of importance to the leather sector. It’s had regained its prestigious position and provided credence to the sector’s future expectation.

**OmwenonyameyoEnock& Dr. KundanBasavaraji, Kuvempu University (2013)** CSR has been assuming greater importance in the corporate world in the 21<sup>st</sup> century. Indian Government has drafted guidelines for CSR practices, which of late proposed companies to contribute a percentage share towards that cause (CSR). This study compares the CSR activities of Tata Company and ITC Company in different areas i.e. environmental friendliness, social accountability, employee safety, human rights promotion and healthcare etc. The study also focuses on the reporting methods used by these companies. From this study, it is observed that all the two big private companies of the country are directly engaged in social responsibility in various areas, from innovation in agriculture & education to saving the environment. It is concluded that environment, education, community involvement and health care activities practiced as CSR by both companies.

**Bhupender&Vikas Kumar Joshiya (2012)** told that CSR expanded to include both economic and social interests. Companies have become more transparent in accounting and display „public reporting“ due to pressures from various stakeholders. In this research paper CSR status, challenges of CSR, policies for CSR in India are studied. The concept of CSR is now firmly rooted in the global business agenda. But to move from theory to concrete action, many obstacles need to be overcome. Many positive outcomes can arise when businesses adopt a policy of social responsibility.

#### 4. NEED OF THE STUDY

Corporate Social Responsibility (CSR) is an effective way of achieving and maintaining sound business management. By carrying out social responsibility a company can enhance its economic value and brand image as well as benefit to society. Besides, companies and other organisations are required to have accountability towards stakeholders such as consumers, investors, employees, residents etc. while utilising the resources of society.

Many companies are putting more emphasis on Corporate Social Responsibility's Triple Bottom Line: People, Planet and Profit. These economic, social and ecological values help to measure an organisation's success and impact on its stakeholders. CSR is a vehicle through which companies give something back to society, but the challenge before the companies is to identify CSR priorities and the areas of the invention which are meaningful in the context of social development. So, there is a need to study and understand the CSR practices being taken by different corporate houses.

Besides the responsibility towards society, the companies are responsible to work in a manner so that they earn profit and increase their profitability. Companies have a responsibility towards shareholders, investors, creditors. So, there is a need to study what is the impact of CSR practices on the profitability of the business. To make an overall study that to what extent the companies in India are doing CSR practices, there is a need to study CSR practices in Leather industries in Vellore District.

#### 5. STATEMENT OF THE PROBLEM

Corporate Social Responsiveness is one such factor that emphasizes actions and activities known to the individuals of the organization in caring out CSR activities. This aspect is interlinked with the organizations Corporate Ethics, which is a form of applied ethics or professional ethics that examines ethical principles and moral or ethical problems that arise in a business environment. It applies to all aspects of business conduct and is relevant to the conduct of individuals and business organizations as a whole especially when catering to the activities of

CSR. It is an ethical framework that suggests that an entity, be it an organization or individual, must act for the benefit of the individual and the society at large. It is a concept whereby companies carry out CSR activities with their employees in involving them in initiatives that benefit to society. Whereas, MOST Analysis is a simple framework tool for analysing or planning the detail of what an organisation does. It helps to frame questions, starting from the high-level mission of the organisation and digging right down to the detail of individual tactics. The mission of an organisation should be determined by the organisation what do you do. Objectives start with the translation of the mission into the overall intent that drives the strategy process. The strategy includes the high-level decisions that shape what is done and how. Tactical planning takes strategic decisions and figures out how to implement them in practice. Through MOST analysis, the CSR may strengthen and create more profitability in the organisation. In this direction, the researcher attempted to analyse how the MOST Analysis will help to improve CSR practices and profitability.

## **6. OBJECTIVES OF THE STUDY**

The present study was undertaken with the following objectives in mind.

1. To examine the social responsibility of the employee exist in Leather industries in Vellore District.
2. To study and analyse the effectiveness of the CSR activities through MOST Analysis as perceived by the employees
3. To suggest suitable measures for improving CSR activities through MOST Analysis.

## **7. ANALYSIS AND DISCUSSION**

- The MOST Analysis tool comes in handy. This tool is meant to work from the top-down, with each successful point becoming a little more specific as it goes. Let's take a quick look at each of the four elements of the MOST Analysis tool to better understand how they can drive your organization forward.

- The mission is the statement created by top-level management. The overall reason is to plan what the company wants to accomplish. The more specific that you can be when defining your mission, the more success you will have later on trying to define the remaining points within the tool.
- Objectives are one step down from your mission. Think of these as a collection of individual goals that will add up to reaching your overall mission. Just like with the mission, objectives should be specific enough to guide your decision making and planning for the future. With your mission in place, it should be relatively easy to develop a list of a few objectives.
- Strategy means the actions that should be taken to accomplish the organisational objectives. So the leather companies are to prepare a suitable strategy to achieve the goal on a long-term basis.
- The final point in the MOST tools is the tactics that the company uses to enact the strategies. The tactics should be the specific details that will guide your daily activities. Using the tactics to dictate the employees' daily activities is the best way to make sure what are doing today and it will guide them in the right direction toward the overall mission.
- The idea behind MOST is that it will help to organize the activities in support of each other so they are all heading in the same direction. Without this kind of cohesion between your activities, the future can suddenly look bleak.
- However, once the business is up and running, it is easy to lose track of that plan or purpose for the business.
- There is so much to do daily that it is easy to forget about the plan and get lost in the details of the daily routine. When the daily activities that take up most of the time are no longer aligned with the vision that the company has for the future of the business and the company has a hard time reaching the goals. Staying on track requires a close connection between long-term goals and short-term activities.

## 8. CONCLUSION

This research paper is on the discussion of Mission, Objectives, Strategies and Tactics of CSR Initiative Leather Based Industries. This study concludes the actual result of Mission, Objectives, Strategies and Tactics of CSR Initiative Leather Based Industries with the help of (M.O.S.T) Analysis tool. This tool implies the simple framework tool for analysing or planning the detail of starting from the high-level mission of the organisation and digging right down to the detail of tactics. At the end of the analysis, it shows the Detailed Mission of CSR Initiative Leather-based industries identifies. An accurate relationship between respect for the rules, honesty, success and to abide by services and leather quality consistent with environmental sustainability. In accordance with laws, regulations and code of ethics as well as manners and customs. To promote CSR for creating shared value, integrating corporate processes, social & environment processes and creating a win-win relationship everything respects that surrounds it: human, animals and environment, these principles inscribed in the company's DNA.

In the aspect of Objectives, it prescribes the framework of Economic performance, Stakeholder engagement, Eco-efficiency and a Great place to work. In these measure helps to promote the Organisation fulfilments along with corporate responsibilities. And, Strategic planning of Corporate Social Responsibility is a sensible step for any company, regardless of its business, size or geographical area it has become Instrumental for companies to meet the Social, Ethical and Environmental expectations of the Civil Society. It is reflected through strategies adopted by companies to improve its Social, Ethical and Environmental impact. The CSR Strategic positioning possible, spanning within the benefits. Such as a reduction of risk exposure and opportunities for financial returns. A good strategy with effective tactics will quickly lead to completed objectives, as a way to reach the Mission. "Strategy without tactics is the slowest route to victory, tactics without strategy is the noise before defeat" – Sun Tzu. Finally, the Research Topic identifies the positive as well as negative suggestions with the help of M.O.S.T. Analysis. Such as its compliance with Standards, Environmental-Friendly, avoiding expenditure, reducing the risk of exposure, Sustainable Innovation of CSR dictate the Social, Ethical and Environmental standards in the Future.

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## **SWOT ANALYSIS OF CORPORATE SOCIAL RESPONSIBILITIES IN LEATHER BASED INDUSTRIES**

### **Abstract:**

Corporate social responsibility is the positive activity that is performed by any company, business or organization that affects the employees, society, local authorities, environment and economy positively. This responsibility is accomplished to gain trust, uphold and tenacity from all the shareholders, employees, government, society and potential investors. It is a motive learning and obligation of employees, directors and all stakeholders in serving others and in the development of the society. It is an ample term concerning what is scrutiny in India. It leads the organization to have sustainable growth and development of the organization, society, and the whole economy. The purpose of this study is to explain the proper meaning and description of Corporate Social Responsibility and its development in India and study the theoretical aspects. We will delve into the modern tendency in the country regarding CSR and its proceeding and global implication. This research is on the different leather-based industries which are on the large and small scale of leather-based industries and also discuss their strategies regarding CSR and what is missing in performing their activities. This study will help in knowing exactly what are the Strengths, Weakness, Opportunities, and Threats (SWOT Analysis).

### **INTRODUCTION**

The leather industry is a very old manufacturing sector producing a broad range of goods such as leather footwear, leather bags, leather garments, and so on. Leather and its products are

one of the most traded products globally. The consumption of leather products by humans is very common and used almost every day. The primary raw material for any leather processing industry is derived from slaughterhouses and waste from the meat industry. This raw material is processed and converted into usable leather in tanneries. The leather tanning industry also involves the usage of many chemicals to convert the raw material into finished products. Thus, the leather industry consumes resources and produces pollutants that are toxic and hazardous to the environment. Chromium is an important heavy metal used in leather, electroplating, and metallurgical industries. Reduction and recycling of the various streams at source appear to be a good approach to dramatically decrease the present quality and quantity of effluent generated by this industry. The use of enzymes and microorganisms for de-hearing and stabilizing could reduce the use of toxic metals and chemicals. The Council for Leather Exports (CLE) is an autonomous non-profit organization, which looks after export promotion activities and the development of the Indian Leather Industry. 3,500 companies are manufacturing/exporting leather and leather products are members of this council. India has trade agreements with Japan, Korea, ASEAN, Chile, etc., and is negotiating Free Trade Agreement (FTA) with the European Union, Australia, etc. (Source IBEF). Exports are projected to reach USD 9.0 billion by 2020 from the past level of USD. 5.85 billion. In Leather Industry giving also a great boost, both domestically and internationally, the domestic market is also witnessing high demand for leather goods. Furniture and automobile industries have introduced a wide range of products and require leather goods in their manufacturing processes.

### **AN OVERVIEW OF INDIAN LEATHER INDUSTRY AND ITS CSR INITIATIVES**

India is the second-largest producer and exporter of footwear and leather garments in the world, the third-largest exporter of saddler & harness in the world. In the Indian economy, the leather industry holds a prominent place for its consistency in high export earnings, leather and leather products from India reached a value of US\$ 5.69 billion during 2018-19. The leather industry is bestowed with an affluence of raw materials as India is endowed with 20% of the world cattle & buffalo and 11% of the world goat & sheep population. The leather industry is an employment intensive sector, providing jobs to about 4.42 million people, mostly from the

weaker sections of society. Women's employment is predominant in the leather products sector with about 30% of shares and added to this are the strengths of skilled manpower, innovative technology, increasing industry compliance to international environmental standards, and the dedicated support of the allied industries. The major production of leather and leather products are located in India are State of **Tamil Nadu** – Chennai, Ambur, Ranipet, Vaniyambadi, Vellore, Pernambut, Trichy, Dindigul and Erode; **West Bengal** – Kolkata; **Uttar Pradesh** – Kanpur, Agra, Noida, Saharanpur; **Maharashtra** – Mumbai; **Punjab**- Jalandhar; **Karnataka** – Bengaluru; **Telengana** – Hyderabad; **Haryana** – Ambala, Gurgaon, Panchkula, Karnal, and Faridabad; **Delhi**; **Madhya Pradesh** – Dewas; **Kerala** – Kozhikode and Ernakulam & Cochin; **Rajasthan** – Jaipur. The product segments of Indian leather and footwear industry, such as Tanning sector in India is about 3 billion sq.ft. of annual availability of leathers, India accounts for 13% of world leather production of leathers. The footwear sector is the second largest footwear producer after China, with an annual production of 2.41 billion pairs. Around 45.48% share in Indian leather and Footwear (leather and non-leather) industry's export in (2018-2019). Leather Garments Sector is the second-largest global exporter, next to Italy, with a global market share of 17%. India's total export of leather garment sector in 2018 - 2019 was 8.23%. Leather goods & Accessories sector Including Saddlery & Harness is the fifth largest global exporter. Industry's total export is a 28% share of Indian leather goods & Accessories sector including saddler & Harness.

## INDIA'S EXPORT OF LEATHER & LEATHER PRODUCTS

VALUE IN US\$ Mn

PRODUCTS	2018-2019
Finished Leather	721.73
Leather footwear	2195.45
Footwear components	319.10

Leather Garments	468.48
Leather Goods	1434.24
Saddler & Harness	159.35
Non-Leather Footwear	392.63
<b>Total</b>	<b>5691.00</b>

Source: DGCI&S

Corporate Social Responsibility is understood to be the way firms integrate social, environmental and economic concerns into their values, culture, decision making, strategy, and operations in a transparent and accountable manner and thereby establish better practice within the firm, create wealth and improve society. It is also known as Corporate Citizenship or Corporate Responsibility. The corporate affairs ministry has sought public comments on proposed changes to rules governing Corporate Social Responsibility (CSR) policy under the companies' law. "To operationalize the Companies (Amendment) Act, 2019, the Companies (Corporate Social Responsibility Policy) Amendment Rules, 2020 has been drafted for carrying out amendments in the Companies (CSR Policy) Rules, 2014, "the ministry notices Under the companies' law, certain classes of companies have to shell out at least two percent of the average net profits, made during the three immediately preceding financial years, towards CSR activities. The Companies (Amendment) Act, 2019 amended Section 135 dealing with CSR and was published in the official gazette on July 31, 2019. Among other changes in the rules, the ministry has proposed setting up the 'National Unspent Corporate Social Responsibility Fund'. The fund would be utilized to undertake CSR projects in the areas or subjects specified in Schedule VII of the Act. The Unspent CSR amount in terms of provisions of sub-section (5) and (6) of Section 135 of the Act shall be transferred by the company to any fund as specified in schedule VII of the Act, as per the draft rules. Under Section 135, every company having a net worth of at least Rs 500 crore, turnover of Rs 1,000 crore or more, or a minimum net profit of Rs 5 crore during the immediately preceding financial year has to make CSR expenditure.

## ROLE OF THE BOARD IN CSR

- Form a CSR committee
- Approve the CSR policy
- Ensure proper implementation of CSR policy
- Ensure that 2% has been spent
- State the reason if the amount is not spent

## ROLE OF CSR COMMITTEE

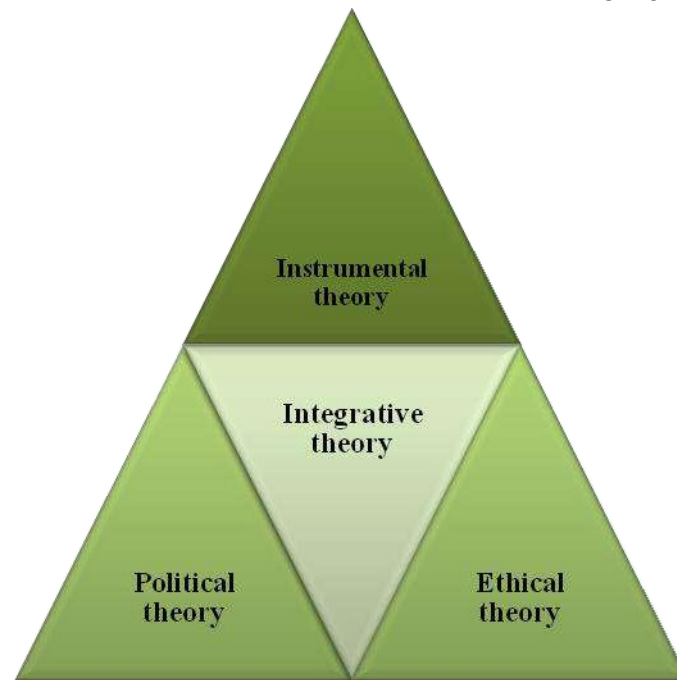
- Three or more directors and at least one independent director.
- Formulate and recommend policy to the Board.
- Recommend activities and amount to be spent.
- Keep a check on policy from time to time.

The role of the board and the role of the committee go hand in hand. They are dependent on each other. One is not complete without another.

## THEORIES OF CSR

- **Utilitarian theory:** It is a theory on social cost and idea for functionalism and neo-functionalism. Social cost theory is based upon economic forces which are influenced by non-economic forces. Functionalism theory is related to profit-making.
- **Managerial theory:** A theory related to the political approaches, globalization pressure and domestic political structures.
- **Relational theory:** It is an environmental-related theory. It considers social contract, stakeholders, business, society a global corporate relationship.

## CSR Theories and its approaches:



### 1. Instrumental theory

This theory is related to achieving the economic objective with the help of social activities. It maximizes the long-term value of shareholders and helps in carrying out a strategy for gaining a competitive advantage. It makes efficient and maximum use of resources with dynamic capabilities. It can also be regarded as a marketing tool.

### 2. Political theory.

It focuses on the use of business power in the political area. It assumes that the organization has a direct link with society. It tells that organization is a citizen and a part of the community.

### 3. Integrative theory.

This theory deals with managerial issues, societal issues, public and stakeholder management.

### 4. Ethical theory.

This theory focuses on the right and exact thing to be performed. It focuses not only on human resource management but also keeps a check on rights and protects the environment and take care of future generation and develop with sustainability.

## **SCOPE OF CORPORATE SOCIAL RESPONSIBILITY (CSR)**

In many different categories of CSR is extended such as:

### **Human resource management**

- To provide an authoritative explanation
- To provide a safe and friendly working environment
- To value a corporate culture
- To ensure maximum satisfaction to customers

### **Social Contribution**

- The welfare of society
- Good corporate citizenship
- Contribution to local communities and authorities
- Assisting for reconstruction after disaster

### **Environmental management**

- Make use of efficient energy tools
- Recycling of wastes and scrap
- Bio-conservation activity
- Efforts to achieve a low carbon society.

### **Research Methodology**

This research paper is based on secondary data. This study includes CSR activities and their initiatives for the Philanthropy, society, environment and ethical resources of Leather industries. This study is descriptive. This study focuses on the Strengths, Weaknesses, Opportunities, and Threats of CSR initiative Leather Industries and their contribution towards society, environmental and ethical comparison of contribution among different kind of sustainable developments.

## **SWOT ANALYSIS OF CSR INITIATIVES IN LEATHER BASED INDUSTRIES**

## STRENGTHS

- Easy availability of low cost of labour.
- Availability of raw materials and other inputs.
- Presence of qualified leather technologists in the field.
- Exporter-friendly government policies.
- Existence of more than sufficient productive capacity in tanning.
- Management with business background become quality and environment conscious.
- Massive institutional support for technical services, designing, manpower development, and marketing.
- Exposure to export markets.
- Tax incentives on machinery by Government.
- Well-established linkages with buyers around the world.

## WEAKNESS

- Environmental issues.
- The low level of modernization and up gradation of technology and the integration of Developed Technology is very slow.
- Low level of labour productivity due to inadequate formal training/unskilled labour.
- Horizontal growth of tanneries.
- Less number of organized product manufacturers.
- Lack of modern finishing facilities for leather.
- Unawareness of international standards by many players as the maximum number of leather industries is SMEs.
- Difficulties in accessing testing, designing, and technical services.

## OPPORTUNITIES

- Abundant scope to supply finished leather to multinationals setting up shop in India.
- Growing fashion consciousness globally.
- Use of information technology and decision support software to help eliminate the length of the production cycle for different products.
- Product diversification - There is a lot of scope for diversification into other products, namely, leather garments, goods, etc.
- Growing international and domestic markets.

### **THREATS**

- The entry of multinationals into the domestic market.
- Stiff competition from other countries. (The performance of global competitors in leather and leather products indicates that there are at least 5 countries viz, China, Indonesia, Thailand, Vietnam, and Brazil, which are more competitive than India.)
- Tariff barriers – Developing countries are resorting to more and more tariff barriers indirectly.
- Improving quality to adapt to the stricter international standards.
- Fast-changing fashion trends are difficult to adapt to the Indian Leather Industries.
- Limited scope for mobilizing funds through private placements and public issues, as many businesses are family-owned.

### **IMPACT OF CSR**

Under the SWOT Analysis of Corporate Social Responsibility in the Leather Based Industry is moreover positively impacts all the related baseline of the Leather-based industry. Such as

#### **On Organization**

- Customer retention
- Stable cash flow

- Less cost of production
- A large number of customers
- Brand image
- Reputation
- Creditworthiness
- Stability

#### **On Society**

- Society development
- Educated people
- Equality
- Better brand image in the minds of consumers

#### **On Environmental and Resources**

- Safe and pollution-free
- Optimum utilization of resources
- Reduce, reuse and recycle resources
- Energy-efficient resources.

#### **CURRENT TREND IN CSR ACTIVITY**

India is the first country in the world to make corporate social responsibility has mandatory, so the corporates have to invest their funds in areas such as environmental, ethical, social, education, poverty, gender, equality and hunger as part of any CSR compliance. The education sector received the maximum funding (38 percent of the total) followed by hunger, poverty, and healthcare (25 percent), environmental sustainability (12 percent), rural development (11 percent). Programs such as technology incubators, sports, armed forces, reducing, reducing inequalities saw negligible spending. The year 2019 will be a promising year of corporate citizenry and impact. Reporting, community engagement, employee training, betterment campaigns, and market feedback are all aligning to support a higher level of CSR

activity than ever before. Taking into account the recent amendments to CSR provisions, industry research estimates CSR compliance to improve and range between 97 to 98 percent by the financial year 2019 – 2020. In the current situation the world getting serious conditions about COVID-19 (Corona Virus Disease 2019) from the end of the year 2019, Amid the COVID-19 outbreak, the Ministry of Corporate Affairs has notified that companies' expenditure to fight the pandemic will be considered valid under CSR activities. Funds may be spent on various activities related to COVID-19 such as the promotion of healthcare including preventive healthcare and sanitation, and disaster management. Keeping because of the spread of novel Coronavirus (COVID-19) in India, its declaration as a pandemic by the World Health Organisation (WHO), and the decision of the Government of India to treat this as a notified disaster, it is hereby clarified that spending of CSR funds for COVID-19 is eligible for CSR activity.

#### **FUTURE STRATEGIES OF LEATHER INDUSTRIES AND ITS CSR ACTIVITY.**

The global leather goods market is forecasted to grow at a CAGR of 6.2% during the forecast period (2020 – 2025). Leather goods are highly popular among consumers as they have inherent qualities such as dustproof, fireproof, crack-proof, and durability which is expected to increase the growth of the leather goods market.

- Leather goods are highly popular among consumers as they have inherent qualities such as dustproof, fireproof, crack-proof, and durability which is expected to increase the growth of the leather goods market.
- Moreover, the growing demand for trendy handbags, premium leather wallets, and other leather products is influencing the growth of the leather goods market form the last few years. Growing government support for the leather industry is further driving the market growth. For instance, in India, 100% Foreign Direct Investment is permitted through the automatic route and the government has reduced the excise duty to 6% from 12% on leather footwear (footwear with uppers made of leather) with a retail sale price of more than USD 14.55 per pair.

Corporate Social Responsibility has become an important buzzword in the business world. The practice of CSR has evolved and matured over time. CSR now includes strategic philanthropy, employee volunteerism, cause marketing, disaster response, peer-to-peer fundraising, non-profit board service, and even incorporating social responsibility into core business practices and offerings. The year 2019 was action-packed in terms of CSR. With the companies taking a proactive interest in improving their CSR practices, and the government encouraging them by bringing in various amendments in the CSR Act, it is being predicted that 2020 will be even more dynamic for CSR. It focuses on five different trends that can be expected in CSR in 2020. Such as,

### **IT FOCUS ON ESG (Environmental, Social and Governance)**

In the year 2020, the rise in ESG investments is certain, more and more people are getting aware of their carbon and social footprint, and while they may not be able to indulge themselves completely in activism, they certainly prefer to associate with brands that have a good ethical standing in terms of their ESG impact. ESG investment thus is no more only a philanthropic activity. It is more of a business feature that is a must-have for the brands if they want to sustain in the competitive market.

### **IT FOCUSES ON INCREASING USE OF RENEWABLE RESOURCES.**

The global community, especially the millennials, are calling for serious climate action from businesses. In 2019 the climate change crisis is at its peak at present. We saw several climate action movements including the climate strike in the united nations. Such movements have compelled the business community as well as the government to embrace renewable energy and reduce emissions. According to the solar mandate, to which new construction homes and commercials are required to have a solar Photovoltaic system as an electricity source from January 1, 2020. This policy across the world are set to inspire more investment in developing, adopting and promoting renewable energy.

### **IT FOCUSES ON TRANSPARENCY IN PROCESSES**

The rising awareness among consumers will create a demand for more transparency in the CSR projects of a company. Digitalization has reduced the cases of corruption and increased transparency in the processes. This includes processes in CSR, there will be introspection on how 5G, AI, Blockchain Technology, etc. can be used to improve the transparency in the system. Therefore, the companies will need to provide a transparent roadmap of activities and progress. All this will help drive collective impact.

### **IT FOCUSES ON EMPLOYEES ACTIVISM**

In 2019, we saw that employees participating in climate strikes, pride week, and so on. In 2020, this trend is set to increase as a greater number of young people enter the workforce. Various studies have shown that employees prefer to work for companies that believe in a cause or have a purpose. Including employees in volunteer work for a social cause helps in getting job satisfaction and improve their retention.

### **IT FOCUSES ON IMPACT.**

#### **Leather Industries raw materials**

The global demand for meat will need to find a balance with supply problems arising from a wide range of issues. The more recent development of interest in crops for biofuels can only increase the pressure on land use. These changes raise several issues related to health, food safety, the environment, and poverty alleviation. Overall, those involved in all aspects of the leather industry can be expected to spend more time ensuring that they have secure raw materials supplies.

#### **Tanning Industries**

The tanning industry with its wide range of raw materials from all over the globe and its extensive variety of end-user clientele is very complex. Tanneries themselves are likely to develop as more machinery processes like operation reduces labor content and improve consistency in leather quality. Environmental issues will become even more important as the world population grows and urbanizes, and global warming and the need for clean drinking water cause increasing concern.

### **Footwear Industries**

Before considering the future, it is necessary to review the changes in the footwear industry over the past 40 years and the dynamics that brought about these changes. The opportunities to meet new growth in domestic and international markets still require sizeable employment in many countries throughout the world, and these countries will continue to fight for their share in the steadily growing world footwear market for many years to come.

### **Leather goods and other Leather Products**

It is expected that the leather goods industry will be tomorrow's world should make sensible use of available natural resources, be it ore, wood, water, or raw hides and skins. Over the next fifteen years, we should expect the transfer of leather goods production to lower-cost countries to continue, at the same time, the emergence of many local brands in countries. Despite rising costs, it is unlikely that the most prestigious companies will start to outsource their production.

### **Impact on Duties and Tariffs**

It is hard to imagine that the disputes regarding tariffs will be resolved in the next fifteen years. The leather industry and the industries supporting it are so important in terms of exports and employment to so many countries that those countries appear certain to try to help them as much as they can. Protectionism occurs in developing countries despite an argument that says that extensive protectionist policies leave the industry open to excessive price fluctuations, weaken further the very weakest, and are unfair to developing countries who have been helping poorer nations. It is also clear that duties create distortions and therefore great opportunities for those who can "get around" them via corruption, smuggling, misreporting or other means. Throughout the world, there is a very significant movement of raw hides and skins, and footwear, in particular, that is outside the legal systems laid down by governments. The volume and characteristics of the world trade in leather and leather products are such, that it is safe to presume that the efforts to influence trade movements through protectionism of one kind or another will continue.

### **CONCLUSION**

This research paper has discussed the Strength, Weakness, Opportunities, and Threats of leather-based industries and their performance, activities, and initiatives in corporate social responsibility. This study concludes the actual strength, weaknesses, opportunities, and threats are situated positively and also the correctable negative circumstances are taking steps to fulfill the performance and initiatives towards the CSR activity by the corporates' contribution of social, ethical, and environmental among the different kind of sustainable developments. Corporate Social Responsibility is not a monopoly process. It is an on-going process as the company is surviving and its activities are running. In the Modern era, the consumer is an essential element of every business. A company's reputation success and survival are in the hands of society. If the companies will do well so far for the society, environment, government, stakeholders, consumers, and suppliers, etc, then only it will be able to achieve its goals otherwise it will not survive successfully in a long period. Companies are taking initiatives for CSR activities and they know their responsibilities and performance of CSR. The companies are integrating their business models with the CSR activities. Even the report is prepared for CSR activities and in the coming times, it will also be shown in the annual reports. India is the first country in the world to make Corporate Social Responsibility has mandatory. So, the corporate has to invest their CSR spending in different areas of sustainable development. The feedback is all aligning to support a higher level of CSR activity than ever before. With the recent amendments to CSR provisions, industry research estimates CSR compliance to improve and range between 97- 98 percent by the financial year 2019 – 2020.

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## HUMAN RESOURCE INFORMATION SYSTEM - A STUDY WITH SPECIAL REFERENCE TO NUTRINE CONFECTIONERY COMPANY LTD., CHITTOOR

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### ABSTRACT

This study aimed to develop a Human Resource Information System model for process-oriented organizations. The study explores two questions: “What kinds of requirements do managers place on information systems?” and “How can the work and information systems of managers and service providers be incorporated into process-oriented organizations?” The background to the study was the process orientation of the Human Resource department of NCCL. The study was conducted at the Nutrine Confectionery Company Ltd., Chittoor. (NCCL). A qualitative research method, based on a developmental circle, was used. The data was collected from archives, interviews, observations, diaries and focus groups. The material was subsequently analyzed to categorize, model and develop small-scale theories about information systems. The study suggested that computer-based management information systems in process-oriented organizations should: (1) support human resource management system; (2) integrate recruitment, selection and other HR activities; (3) facilitate the ability of the organization to measure inputs and outcomes. The research effort concluded that various HR managers need the same type of primary data, though presented in different ways. Professional developers and researchers have paid little attention to how integrated administrative, financial and human resource systems should be configured to ensure optimal support for process-oriented organizations. Thus, it is important to identify the multiple roles that information plays in such an organization.

*Key words: Human Resource Information System, HRIS*

### INTRODUCTION

To find the best ways of managing information as a resource, the information needs, behaviour, and attitudes of users have also been studied at the individual, collective and organizational levels although few studies have taken all these aspects and levels into account in the same study. The application of computers to employee-related record keeping and reporting and management decision making is called Human Resource Information System.

**Definition:**

“Information management deals with the value, quality, ownership, use and security of information in the context of organizational performance”.

“An organization’s conscious patterns for delivering its services, carrying out its processes and managing its resources.”

In practice - a set of interrelated diagrams, lists and tables that define an organization’s resources and processes and coordinate their use for maximum results.

**SIGNIFICANCE OR HRIS:**

- Faster information process
- Greater information accuracy
- Improved planning and program development
- Enhanced employee communications
- Reduction in cost of stored data in HR.
- More transparency in the system
- More meaningful career planning & counseling at all levels.
- Better ability to respond to environmental changes.

**HRIS – Benefits:**

- Higher Speed of retrieval and processing of data.
- Reduction in duplication of efforts leading to reduced cost.
- Ease in classifying and reclassifying data.
- Better analysis leading to more effective decision making.

- Higher accuracy of information/report generated.
- Fast response to answer queries.
- Improved quality of reports.
- Better work culture.
- Establishing a streamlined and systematic procedure.
- More transparency in the system.
- Employee – Self Management.
- Save money
- More efficient recruiting
- Better coordination of staffing resources
- Faster, more consistent screening of applicants
- Quicker, higher quality hiring decisions

#### **HRIS – Disadvantages:**

- It can be expensive in terms of finance and manpower.
- It can be threatening and inconvenient.
- Thorough understanding of what constitutes quality information for the user.
- The computer cannot substitute human beings.

#### **IMPORTANCE OF THE STUDY**

The HR center is a powerful application designed to allow companies to streamline their human resource tasks and manage their employees more efficiently. The HR Center includes a comprehensive employee information database, work information, beneficiary information, and more for each employee. It comes standard with employee self-service access allowing employees to update their personal information, request time off or input their daily timesheet entries. It also has role-based access level control that is functionally based on whether a user is an employee, a manager, or an HR administrator. With HR center managers and HR administrators can manage a track.

## OBJECTIVES OF THE STUDY

The HRIS project is designed to improve our collective understanding of the processes, policies, and information systems that create our Human Resource Information System (HRIS) administered by the Payroll, Budgeting, Planning and Institutional Research, and Human Resources areas.

Key objectives of the project include:

- An analysis of current processes within Payroll, Budgeting, Planning and Institutional Research, and Human Resources.
- Development of a vision for the future that depicts how existing processes will evolve to be compatible with the new HRIS or be eliminated.
- Create and coordinate the HRIS implementation plan.
- Error-free generation of pay bill and electronic transfer of pay bill to the treasury.
- To derive cadre management information for planning by the heads of departments/Ministries
- Data processing and projection/ budgeting of employee-related salary expenses
- To get a consistent and unified picture of the employee data
- To maintain Service Registers of all employees in electronic form

Achieving these objectives will create an understanding of the policy, procedure, and technological changes required to convert current systems.

## SCOPE OF THE STUDY

The scope of the project includes activities to:

1. Document and examine current business processes utilizing business process mapping, data mapping, and recommending adaptation to processes where best practices can be implemented.

2. Utilize surveys, interviews, and focus groups to generate information on levels of satisfaction and knowledge of the current system.
3. Define the current operational level of the personnel/payroll system and identify desired future requirements for vendor selection criteria.
4. Measure, validate and analyze the information obtained to identify the degree to which current capabilities fall short of expectations and future needs.
5. Facilitation and evaluation of policy, procedure, and guideline adaptations identified by the business process review.
6. Devise a well-defined management and communication plan.
7. Develop a strategy for implementation, system interfaces, and testing.

The scope of business functions to be addressed in this project include payroll, policy, human resources management, budgeting policies and procedures and all information management related to these functions. Allow for the creation of an application specification to the human resource that maintains the intranet automation of the HR software i.e., which contains the data related to the employee.

#### **LIMITATION OF THE STUDY**

- Funding levels may impact the vendor selection criteria or cause the project timeline to alter.
- Technology infrastructure changes in hardware or software may affect the project timeline.
- Lack of resources to complete all project activities.
- Financial and timeframe considerations may outweigh our business process analysis.
- Conflicts will not be resolved promptly.
- Change in Policy Group members may cause a change in focus/direction.

- Scope expansion may occur resulting in dilution of focus.
- It can be expensive.
- Its effective application needs large-scale computer literacy among the employees responsible for maintaining HRIS.
- The absence of continuous up-dating of HRIS makes the information stale.

## **RESEARCH METHODOLOGY**

The proper research method is important to start scientific research. Research methodology presents the route map to continue the scientific investigation.

### **1. Research process:**

Although there are different methods to conduct the research, all these methods are involved in a sequence of activities that form the research process with high dependency together.

### **2. Research design:**

The research design is a framework for marketing research as a consequence; research design is the basic plan that indicates an overview of the activities that are necessary to execute the research project. Research design provides an operational frame within which the facts are placed, processed through analyzing procedures and the valuable research output is produced.

### **3. Classification of data:**

The data collected can be classified as primary data versus secondary data. Primary data are gathered and generated for the project at hand, but secondary data were gathered for other purposes and now are used in the recent project .usually the secondary data are found inside the company, libraries, research centers, internet, etc. This study used both primary and secondary data.

### **4. Sample Size:**

The sample size is limited to 100 respondents due to the busy schedule of the employees of NCCL.

### 5. Statistical tools used for analysis:

Percentage Analysis and Chi-Square Test. Percentages are used to describe the relationship. The percentage can also be used to compare to relative form. Chi-square test is used for the purpose to test the data is significant or not.

A detailed questionnaire was prepared and distributed to both executives and employees for the purpose to gather relevant information regarding HRIS. The five points Likert scale was used, ranging from “very low” to “very much” for statements of the mentioned parts of the questionnaire.

### FINDINGS:

- An effective HRIS provides information on just about anything the NCCL needs to track and analyze about employees, former employees, and applicants.
- NCCL will need to select a Human Resources Information System and customize it to meet your needs.
- With an appropriate HRIS, Human Resources staff enables employees to do their own benefits updates and address changes, thus freeing HR staff for more strategic functions.
- Additionally, data necessary for employee management, knowledge development, career growth and development, and equal treatment is facilitated.
- Finally, managers can access the information they need to legally, ethically, and effectively support the success of their reporting employees.

### SUGGESTIONS

- To provide information and statistical reports to internal and external customers of NCCL.
- Support, analyze, and maintain the HR web site and provide web technology solutions and services to improve the efficiency of Human Resources business processes, the effectiveness of HR services and programs to customers

- To recommend and implement HRIS projects based on production issues and/or technology-based departmental activities are needed.

## CONCLUSION

HRIS supports the development, documentation and use of structures. HRIS supports staffing plan, sourcing candidates, candidate evaluation, on-boarding and security clearance processing. HRIS supports staffing plan, sourcing candidates, candidate evaluation, onboarding, security clearance processing etc. Hence, HRIS is very useful for management. It helps to minimize the cost and maximize the profit. It is also helpful to achieve the organization's goal within a specific period. A Human Resource Information System (HRIS) refers to the systems and processes at the intersection between human resource management (HRM) and information technology. It merges HRM as a discipline and in particular, its basic HR activities and processes with the information technology field. The importance of the human resource function and the human resources information system has to develop the overall activities of NCCL.

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## A STUDY ON CONSUMER BEHAVIOUR TOWARDS SELECTED NON-DURABLE GOODS IN VELLORE CITY

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### ABSTRACT

Consumer behaviour is influenced by several aspects namely socio-economic, cultural, psychological and physiological environment. Apart from these, the consumer behaviour is molded by the external environment namely, opinion leaders, friends and relatives, resource persons, retailers, reach of media, caste and religion. The behaviour of the consumer depends upon the product he wants to purchase. The behaviour is highly dynamic even in the consumption of one single product.

*Key words: Consumer behaviour, Non-Durable Goods*

### INTRODUCTION

Consumption is the soul and the purpose of all production. So **Peter Drucker** was apt in saying, 'it is the consumer who determines what the business is'. A consumer is one who does some physical activities and deliberates to take decisions concerning purchase and to dispose-off to evaluate products and services. Consumer behaviour reflects the totality of consumer's decisions with respect to purchase, consumption and disposition of goods, services, time and ideas. It also includes whether, why, when, where, how, how much and how often and how long consumer will use or dispose of an offering. The markets are customer driven these days and the target of all marketing activities is consumers. Understanding consumers are not easy jobs as his behaviour is mostly unique and unpredictable. Marketers need to identify the end users of product, services, and frame marketing plans than considering the wholesalers and retailers who actually are the intermediaries in the process of purchase. Marketers therefore should consider the consumers and then develop their plans of action. Here lies the essence of marketing. The consumer is the king and all actions should start with this notion in mind.

## **IMPORTANT CONCEPTS**

### **Consumer Behaviour**

Consumer behaviour is the study of how people buy, what they buy, when and why they buy. It is a sub category of marketing that blends elements from psychology, sociology, socio-psychology, anthropology and economics. It attempts to understand the buyer's decision making. It studies the characteristics of individual consumer such as demographics, psychographics and behavioural variables in an attempt to understand people's wants. It also tries to assess influences on the consumers from groups such as family, friends, reference groups and society in general. It is the acts of individuals in obtaining and using goods and services, including the decision process that precede and determine these acts. Consumer behaviour influences purchase decision process and the act of purchasing is one of the acts in the process. In order to understand consumer's behaviour clearly, one must understand the events that precede and follow from purchase act. Consumer behaviour results from individual and environmental influences. Consumer behaviour is determined by the individual's psychological make-up and the influence of others. Thus it is the result of the interaction of the consumer's personal influences and the pressures exerted upon them by outside forces in the environment. A consumer buying a brand of home appliances, for example, is motivated by a need to own the category and the particular brand (based on functional and emotional benefits) from an outlet. This buying behaviour involves several psychological factors and these factors govern the individual thinking process (like motivation, personality, perception and attitude), decision-making steps involve in buying (decision-making process), interaction of the consumer with several groups like friends, family and colleagues (group-oriented concepts) and selection of the brand and outlet depending on price and features and emotional appeal (marketing mix elements in a given environment). Consumer behaviour links these four aspects to enable a marketer to formulate marketing strategies. The basic elements of consumer behaviour are what the consumer buys, how he buys, when and where he buys and how much she buys and should be understood by the interaction of different factors associated with consumer behaviour.

### **Non-Durable Goods**

Non-durable goods are products consumers purchase with the plan to use for a short period of time. Also referred to as consumable goods, most non-durable goods are expected to be consumed or used in three years or less. Because of this basic characteristic, non-durable goods can be a wide variety of products.

Non-durable goods are also called 'Fast Moving Consumer Goods', (FMCGs). Basically these are things that deteriorate over time so have to move to market. For examples, Fruits, Vegetables, Meat and so on.

There are essentially three types of non-durable goods. They may be literally consumed, as with food and drinks. They can also be utilized until they are gone, such as deodorant, toothpaste or dish soap. The third type of non-durable goods is a product that is used and no longer needed, intended for one use, or wears out from normal use, such as socks, paper plates and light bulbs.

Examples of Non-durable goods include Fast Moving Consumer Goods (FMCG) such as cosmetics and cleaning products, food, fuel, beer, cigarettes, medication, office supplies, packaging and containers, paper and paper products, personal products, rubber, plastics, textiles, clothing, and footwear.

### **SIGNIFICANCE OF THE STUDY**

To understand the factors influencing the buying behaviour in the families and the marketers can persuade the persons involving in initiation, information seeking, influencing and finally the decision - making. Marketing strategies would work better if the marketers properly understand the extent of family members involvement in purchase decision making, By studying the family buying behaviour, the marketers could understand the psychology of members in the family, how they think, reason, and select between different alternatives and how the consumer is influenced by his / her environment. This will provide a frame work to the marketers for designing marketing communication, which strike the right chord with the target audience. Thus, it is important for the marketer to understand as to what role played by various family members while making decisions on various aspects of the consumer non-durables to be purchased.

## STATEMENT OF THE PROBLEM

In fact, everybody in this world is a consumer. We are buying and consuming incredible variety of goods and services. However we all have different tastes, likes, dislikes and adopt different behaviour patterns while making purchase decisions. This is exactly the truth about the consumers in all areas. Consumer behaviour may be defined as behaviour exhibited by people in planning, purchasing and using economic goods and services. Consumer behaviour is an integral part of human behaviour and cannot be separate from it. The field of consumer behaviour is complex, involving interplay of individual, social-cultural processes. A mountain of explanation and data from the behavioural sciences and consumer research has told us a lot about it. As the understanding of consumer behaviour is so crucial to the development of sound marketing strategy, the search for explanation will go on. It is identified that there is a need for research work in the field of consumer behaviour of non-durable in Vellore City. The research deals with the questions like what the brand purchased is, who the buyer is, how it is bought, how much money is spent on the purchase and preferences between the branded and unbranded products.

## OBJECTIVES OF THE STUDY

1. To explore the awareness and perception of consumers towards non-durable goods.
2. To ascertain the consumer's attitude towards branded non-durable goods.
3. To study the factors that influences the consumers in the purchase of non-durable goods.
4. To study the consumer's loyalty towards branded non-durable goods.

## RESEARCH METHODOLOGY

The methodology of the study is based on the primary as well as secondary data. The study depends mainly on the primary data collected through a well-framed and structured Interview schedule to elicit the well-considered opinions of the respondents. Convenient sampling was used by the researcher for the present study. This study employs both analytical and descriptive type of methodology. The study is conducted in two stages format, with a preliminary pilot study followed by the main study. The secondary data are collected from

journals, magazines, publications, reports, books, dailies, periodicals, articles, research papers, websites, company publications, manuals and booklets. The statistical tools used in the research are Simple Percentage, Factor analysis, Chi-square and Structural Equation Modeling.

### **Selection of the products**

The choice of product was decided after a brainstorming session between the scholar and supervisor. It has been noted that certain product categories lend themselves well to the consumers. For the purpose of research Non-durable goods were selected. After conducting a pilot study among the selected areas the mostly used on non-durable goods among the five classifications were identified and selected for the study. The application of ranking analysis clearly revealed high awareness of consumers on Non-durable goods. So the researcher concluded the suitability of Non-durable goods based on their frequent usage. The products include,

- Cosmetics
- Biscuits
- Textiles
- Footwear and
- Paper products.

### **Interview Schedule**

The researcher has developed a self-styled interview schedule for the present study. The interview schedule consists of five parts. All relevant statements are included to derive responses.

### **Scaling technique in the interview schedule**

The interview schedule of the research consists of both optional type and statements in Likert's 5 point scale. The responses of these sections were obtained as shown below from the non-durable goods users in Vellore City.

## HYPOTHESES OF THE STUDY

To carry out the objectives of the study, the researcher has developed following null hypothesis, through which, findings can be statically validated.

1.  $H_0$  = There is no significant difference between consumer perception and attribute towards non-durable goods.
2.  $H_0$  = There is no influence of demographic variables on brand evaluation and purchase behaviour.

## REVIEW OF LITERATURE

The relevant facts and data are analysed in more depth and elucidates the important issues that remain unanswered. It gives panoptic analysis regarding Product Awareness, Consumption Pattern, Factors Influencing Consumer Choice, Consumer Decision Making and Brand Loyalty.

**Vani, Ganesh et al. (2010)** have conducted many research in this area, and they given only few suggestion, but there is no final conclusion. As per the ideas given by the researchers, there are two factors influencing the consumers such as intrinsic and extrinsic factors. This study mainly focused on understanding the external factors like demographic, social, cultural, price, quality, and product attributes etc for buying toothpaste. The market share of any product is highly determined by the purchasing behaviour of the consumers. The study is conducted by the researcher to find out the behaviour of the consumers, to analyze the preference of consumers and consumer awareness. Descriptive research design was adopted and the data was collected through primary and secondary sources. The method adopted for conducting survey is questionnaire; Simple random sampling technique was adopted for selecting the consumers.

**Srividhya.S and Thanasingh.S (2015)** said that the aim of the study is to examine the consumer behaviour of FMCG product in rural marketing. The behaviour of consumer plays a vital role in market. The consumer's needs and wants are fluctuating day by day according to the modern trend. The primary data required for this study was collected through structured questionnaire was from 400 samples by random sampling technique in the Tiruchendure taaluk's

rural area. The tools used for analysis are percentage analysis and Chi-square test. This study proves that most of the respondent's buying behaviour is influenced by the quality and brand name of FMCG.

**Anandarajan.S and Manikandan.A (2016)** have revealed the motive of this research work to study the consumer behaviour towards Fast Moving Consumer Goods (FMCG) in Chennai of Tamilnadu. The data for the study had been collected by performing face-to-face interview with the respondents with the distribution of questionnaire. This study collects data from 400 consumers at various places in Chennai. This study was started with the objectives of examining socio-economic background of respondents, analyzing the factors influencing consumer behaviour towards selected FMCG products, checking the level of satisfaction of consumers and knowing expectation of the consumers. This study revealed that consumer behaviour is largely affected by place, product, price, promotional, psychological and people. This article highlighted the consumers' expectation towards fast moving consumer goods in Villupuram district.

**Malini Majumder and Arun Kumar Singh (2015)** have given the objective of their paper as to address to the area of consumer decision making, with special focus on brand awareness in order to maintain "the competitive edge of superiority" of the product. In this study titled "Importance of brand awareness in purchase decision of FMCG products for consumers: a comparison between urban, semi urban and rural markets" the researchers have assessed the purchase decision of FMCG for consumers, what they look for? Why and in which situation? And level of brand awareness present in urban and rural market consumer or people, role of media to create brand awareness.

### **DATA ANALYSIS AND INTERPRETATION**

Apart from the frequency distribution on demographics and Factor analysis are applied for analyzing the responses of non-durable goods consumers of in Vellore city.

### **DEMOGRAPHIC PROFILE OF THE RESPONDENTS**

Demographic characteristics are vital in any marketing research for the segmentation purpose. Demographics describe a population in terms of its size, distribution, and structure. Demographics influence consumption behaviours both directly and by affecting other attributes of individuals, such as their personal values and decision styles.

### Gender of the respondents

Gender is one of the most important factors that determine the level perception of male and female respondents.

**Table 1.1**  
**Demographic Profile of the Respondents**

	Frequency	Percent	Cumulative Percent
<b>Gender</b>			
Male	82	41.0	41.0
Female	118	59.0	100.0
<b>Total</b>	<b>200</b>	<b>100.0</b>	
<b>Age</b>			
Below 25	78	39.0	39.0
26-30	84	42.0	81.0
Above 30	38	19.0	100.0
<b>Total</b>	<b>200</b>	<b>100.0</b>	
<b>Marital Status</b>			
Married	114	57.0	57.0
Unmarried	86	43.0	100.0
<b>Total</b>	<b>200</b>	<b>100.0</b>	
<b>Educational Qualification</b>			
School Level	12	6.0	6.0
Graduate	66	33.0	39.0
Post-graduate	54	27.0	66.0
Professional	44	22.0	88.0
Diploma	24	12.0	100.0

<b>Total</b>	<b>200</b>	<b>100.0</b>	
<b>Family Type</b>			
Joint	96	48.0	48.0
Nuclear	104	52.0	100.0
<b>Total</b>	<b>200</b>	<b>100.0</b>	

**Source:** Primary Data

It is found from the table 1.1 that 41.0% of the respondents are male and 59.0% of them are female. Thus, the majority of the respondents are female in the study area. Age wise representation shows that more number of consumer belong to the age group of 26 to 30 (42.0 percent) followed by the age group below 25 (39 percent). So, in total 81.0 percent of the non-durable goods are purchased by the age group of 30 years and below. Middle age consumers come next in non-durable goods purchaser. The persons above 30 years of age are also purchased non-durable goods but their percentage is less. They constitute 19 percent of the total consumer in the survey. It is found that 57.0% of the respondents are married and the remaining 43.0% of them are unmarried. Thus, majority of the respondents are married in the study area.

Educational qualification of the respondents influences the perception and attitude towards the products to be selected. It is very well understood that 33.0% and 27.0% of the respondents are graduates and post-graduates. Where 22.0% and 24.0% of the respondents are professional and diploma. So the consumers are well educated and they have sufficient knowledge on the quality, price and media. It is this factor, which assumes that, the consumers are matured enough to comment and answer on the customer behaviour and other variables which are related to products.

It is represents that 52 percent of respondents belong to nuclear family and the rest from joint family. Therefore, this research tells the fact that there is no much considerable difference between consumers, belong to joint family and consumers belong to nuclear family. This is because non-durable goods are required by everyone else irrespective of the fact whether he/she belong to joint family or nuclear family.

## FACTOR ANALYSIS

The assignment of numerical values in Likert five point scales for each variable creates co-variances and the variables in the same domain. These co-variances and co-efficient of correlation are useful statistical parameters to group likely variables to form an innovative factor. This mechanism is achieved through a statistical tool called Factor Analysis by Principal Component Method. It reduces the numerous variables into major factors; each factor comprises likely variables with nearest co-variance and correlation value.

**Brand Loyalty**

The main purpose of this exploratory factor analysis is to extract predominant factors influencing the performance of consumer behaviour in Vellore city.

**Table 4.12**  
**Rotated Component Matrix<sup>a</sup>**

	Component				
	1	2	3	4	5
Share views of the brand with others	.942				
Quality wise the brand is very good	.936				
Stick to the same brand		.795			
Enjoy using this brand		.604			
Brand marketed is very impressive		.552			
Appreciate those who use the same brand			.884		
Adjust with the shortcomings of the brand				.854	
Brand has good reputation				.579	
Do not tolerate the non-availability of the brand					.836
	Approx. Chi-Square				253.103
	Sig.				.000

From table 1.2, it is clear that there are five factors to be considered for the brand loyalty and named as “Quality recognition”, “Convenient Brand”, “Brand appreciation”, “Reputation” and “Non-availability”.

### Factors Influencing the Consumer Behaviour

The main purpose of this exploratory factor analysis is to extract predominant factors influencing the consumer behaviour in Vellore city. The parsimonious scale consists of five items pertaining to the factors influencing the consumer behaviour. The application of Principal Component Factor Analysis is presented in table 1.3.

**Table 1.3**  
**Rotated Component Matrix<sup>a</sup>**

	Component				
	1	2	3	4	5
Smell	-.692				
Taste	.674				
Family Linking		-.808			
Color		.596			
Quality			.801		
Quantity			-.525		
Personal Linking				.705	
Habitual				.526	
Shopkeepers				.464	
Price				.455	
Availability					.776
Package					.558
	Approx. Chi-Square				146.718
	Sig.				.000

From table 1.3, it is clear that there are five factors that are influencing the consumer behaviour and named as, “Fragrances”, “Color”, “Quality”, “Price” and “Package”.

### **FINDINGS,**

- It is found that 41.0% of the respondents are male and 59.0% of them are female. Thus, the majority of the respondents are female in the study area.
- It is found that more number of consumer belong to the age group of 26 to 30 (42.0 percent) followed by the age group below 25 (39 percent). So, in total 81.0 percent of the non-durable goods are purchased by the age group of 30 years and below.
- It is found that 57.0% of the respondents are married and the remaining 43.0% of them are unmarried. Thus, majority of the respondents are married in the study area.
- It is found that 33.0%, 27.0% of the respondents are graduates and post-graduates. Where 22.0% and 24.0% of the respondents are professional and diploma. So the consumers are well educated and they have sufficient knowledge on the quality, price and media. It is this factor, which assumes that, the consumers are matured enough to comment and answer on the customer behaviour and other variables which are related to products.
- It is found that 52 percent of respondents belong to nuclear family and the rest from joint family. Therefore, this research tells the fact that there is no much considerable difference between consumers, belong to joint family and consumers belong to nuclear family. This is because non-durable goods are required by everyone else irrespective of the fact whether he/she belong to joint family or nuclear family.
- It is found that there is an association between educational qualification and price.
- It is found that there is a weak relationship between gender and purchase from a particular shop.

### **SUGGESTIONS**

1. Under the globalization environment there is increasing competition from national as well as multinational giants to the cutting edge state, for almost all products falling under the category of durables and to a certain extent non durables.

2. The findings of the study expose the dynamics of consumer behaviour pattern in Vellore city. The first and foremost task in planning a marketing strategy is to create awareness of the existence of a particular brand in the market.
3. The study also highlighted the fact that price conscious consumers are shifting to quality conscious nowadays. The stresses the need for providing quality products at reasonable price to consumers.
4. In the research, the product attribute and brand knowledge play a vital role in determining the behaviour of consumers therefore it is suggested that the manufacturing company may advertise the Non-durable goods by giving more thrust to the product attributes characteristics and nature of product.
5. The studies revealed that majority of the consumers are using branded products. Consumers are associating superior quality, reasonable price and social status to branded products

## CONCLUSION

The manufacturing sector plays a significant role in the economy and it serves the needful and requirement of the people. The non-durable consumer products are the important one which is widely used by the people in their day to day life. A substantial portion of people's income is being spent on these items. At the same time it is important to study that how they are supplied these products and their level of satisfaction attained from them. Under this study, select non-durable products were chosen and the satisfaction of the sample respondents towards them was studied. The select sample respondents were highly sensitive to the price, quality and quantity. It was also found that the purchasing pattern differ from one respondents to another due to differences in their socio economic environment. As far as the present study is concerned, the respondents are satisfied with the selection of non-durable products but at the same time they are far away from the fullest satisfaction. It is duty of business firms to enhance the satisfaction of their customers since they are king of the market. If the above mentioned suggestions are

fulfilled the customer - producer relationship would be ensured and the win-win situation can be attainable.

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## IN-STORE ADVERTISING, PROMOTIONS AND ITS IMPACT ON CONSUMERS PURCHASE DECISIONS IN VELLORE CITY

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### ABSTRACT

The present study objective is to understand the respondent's views towards the effectiveness of in store advertisement and layout in influencing the respondents to purchase goods in retail stores in the competitive market. There is evidence of previous research being carried out on advertisement and its effectiveness on various branded products in different categories both national and international. In addition, the literature study indicates that research has been done in the area of consumerism, the retail store CRM, consumer satisfaction of retailing, FMCG etc. The researcher found that there is no research indicating analysis of in store advertisement effectiveness in retail outlet. Hence the present study's aim is to analyse in store advertisement both branded and own store branded products advertisement and layout effectiveness.

**Key words:** *In-Store Advertising, CRM, FMCG*

### INTRODUCTION

The definition of customer that one can find in dictionaries often runs along the lines of, 'a customer is one who purchases a commodity or service'. There is only one valid definition of business purpose: "to create a customer". It is the customer who determines what a business is. The customer is the foundation of a business and keeps it in existence. The President of the United States, in 1962 addressed Congress and defined the basic rights of consumers:

- The right to safety
- The right to be informed
- The right to choose
- The right to be heard

This speech is often referred to as the Consumers' Magna Carta and continued over the next 40+ years, advocating on behalf of consumers.

## CONSUMERISM

Consumerism is a movement to improve the rights and powers of consumers in relation to the sellers of products and services. It is also a protest movement of consumers against what they or their advocates see as unfair, discriminatory and arbitrary treatment. There is nothing new about the idea of consumerism. It is as old as business. Americans define their relationships with others through the exchange and use of goods. Consumerism is a more powerful worldview than political ideologies, religions, or class and ethnic distinctions.

Consumerism is a movement to inform consumers and protect them from business malpractices. The term "consumerism" is also used to refer to the consumer movement, consumer protection or consumer activism, which seeks to protect and inform consumers by requiring such practices as honest packaging and advertising, product guarantees, and improved safety standards. The term "consumerism" was first used in 1915 to refer to "advocacy of the rights and interests of consumers" but in this article the term "consumerism" refers to the sense first used in 1960, "emphasis on or preoccupation with the acquisition of consumer goods.

“Origin of consumerism has weak links with the Western world, but is in fact an international phenomenon. People purchasing goods and consuming materials in excess of their basic needs is as old as the first civilizations. A great turn in consumerism arrived just before the Industrial Revolution in the nineteenth century. At that time, agricultural commodities, essential consumer goods, and commercial activities had developed to an extent, but not to the same extent as other sectors. During this period, members of the working classes worked very long hours for low wages. They worked for as much as 16 hours per day, 6 days per week. Little time

or money was left for consumer activities. For the first time in history products were available in outstanding quantities, at outstandingly low prices, being thus available to virtually everyone. So began the era of mass consumption, the only era where the concept of consumerism is applicable.

Consumerism can take extreme forms such that consumers sacrifice significant time and income not only to purchase but also to actively support a certain firm or brand. Opponents of consumerism argue that many luxuries and unnecessary consumer products may act as social mechanism allowing people to identify like-minded individuals through the display of similar products. Critics of consumerism often point out that consumerist societies are more prone to damage the environment, contribute to global warming and use up resources at a higher rate than other societies.

Consumer groups can liaison between Government, Industry and the consumer to inculcate honesty, responsiveness and responsibility in manufacturers & marketers. There is a need to move towards societal concept of marketing

### **CONSUMER PURCHASE DECISION**

Consumers use an approach that takes into account both how well a product appears to meet their needs and how important they feel those needs to be. Marketers have researched consumer behavior for many years, and many articles have been published in marketing journals explaining how consumers make purchasing decisions.

#### **Consumer Buying Process**

The consumer buying process is divided into five steps: need recognition, information search, evaluation of alternatives, purchase and post purchase behavior.

Need recognition perceives the unfulfilled desire. Marketing helps customers to recognize the imbalance between present status and preferred state.

The customers start information search, by recalling from their memory or using external sources such as internet, TV, newspapers, friends, etc.

After having acquired some alternatives, customers compare the value and the attributes of products so that finally they come to the decision to purchase the most attractive option they have. Here, marketing determines which attributes are the most important in influencing a consumer's choice.

The final step is post –purchase, where the consumers compare the experience of using the product, to their expectations of the product's performance. They may also make further purchases. It is common that the consumers can experience concern or anxiety, an uncomfortable post purchase psychological state, after their purchase. (Festinger, 1957). The Marketing concept came into being when marketers realized that they would be able to sell more if they knew what was required by the consumers. In mapping out the buying process that consumers use, researchers have identified several categories of motivation that determine how consumers attach weight to or rate the importance of product features:

- **Personal.** This includes the demographic factors that are correlated with purchase behavior.
- **Psychological.** Personality, attitudes, lifestyle, and motivations are a few of the factors included.
- **Social.** These influences include friends, family, opinion leaders, role models, and similar factors.

### **LENGTH OF IN-STORE ADVERTISEMENTS**

Experts say ads on mall televisions work best when they are half the usual length, 10-15 seconds rather than 20-30 second. “Nobody is going to watch a 30-second commercial on these in-store networks. You have to ensure that the content is relevant and engaging. You have three seconds to capture the shoppers' attention,” says Maureen Johnson, chief executive, The Store, which researches trends for retail advertising for the WPP Group (Shah & Roy, 2007). For instance, an advertisement for Unilever deodorant Axe, made for in-store televisions at Wal-Mart, was designed to look like it was from a mall's security camera footage. Faced with a

growing need to cater to this growing medium, Indian ad agencies are also setting up specialized divisions. Among them are Noshe Oceanic Advertising Pvt. Ltd., Madison Group's MASH, Percept Out-of-Home's Percept Retail and Group M's Dialect. "Many clients are beginning to divert a lot of money to communication, in what we call the 'last mile'. So, advertising agencies will have no choice but to offer services in this area," says Anurag Gupta, Country head, Ogilvy Action (Shah & Roy, 2007). "We are in the process of launching a retail division under Ogilvy Action very soon," he adds.

### **New In-store Media**

As new malls and stores open every day, advertisers are also finding new mediums to reach consumers. Rajesh Jog, chief executive of Vjive Networks, is running a pilot on talking store shelves that will recommend products (Shah & Roy, 2007). "It is a relatively new medium, where the effectiveness of communication is measured in terms of sales. It requires new thinking and international learning from mature markets," says Gupta.

### **Benefits of In store Advertising**

Retail marketing and in-store Advertising can dramatically increase your sales revenue. There are different approaches to this type of marketing. Clearance signs and sale signs catch the attention of most shoppers. Even people that may have a list in their hands will still migrate towards these signs just to see what is on sale or clearance. Using brightly colored large signs that hang from the ceiling is a great way of achieving this. Item sampling invites a customer to experience the product first hand. Questions can be immediately answered and information shared on a personal level, greatly increasing the chances of more sales.

Almost every customer uses shopping carts. Shopping cart advertising is a valuable marketing area, and has been proven to directly influence a shopper's decision. Regular customers will see the advertisement repeatedly which can be a great way to build a brand name. An extremely strong Advertising option is digital video and audio advertising. This can be accomplished by a network of monitors positioned all over your store. When Advertising is

combined with video and audio together it attracts more attention from the consumers. The monitors can also give valuable information to the customers and retain their attention longer.. Despite these opportunities, retail marketing in India still has a long way to go. “As of now, in-store advertising is only attracting below-the-line spends. In the future, however, it could become the fifth most important mass medium, after television, print, radio and outdoor, “says Dasgupta of Future Media. And the growth of organized retail will only help the cause (Shah & Roy, 2007).

### **NEED FOR THE STUDY**

Consumers find it difficult to know prices confronted with thousands of items and have even less knowledge of the variety of products. They are often enticed by window displays to make a purchase and have no time to watch T.V advertisement and other means. Hence the consumers of today rely more on in-store advertisement as this facilitates them in making buying decisions. The outside store appearance affects consumers’ choice of a store. Therefore store should pay attention to external appearance as well as in-store appearance in creating positioning strategies and enabled them to differentiate their stores in terms of the products and prices or services on offer. Notwithstanding the commercial and academic research that has taken place, there are still many uncertainties about the behaviors and rituals of customers pertaining to In-Store advertisements and store layout. A front that does not have a positive store image loses potential customers who shy away from it and go to stores they understand. Such a negative front also brings in a certain number of people who think it might be their kind of store and are disappointed and angry when they discover that they misjudged it. A non-descript front only loses sales, but it also increases expenses. Attractive and friendly in-store Advertising and store layout will attract potential customers to the store and, at the same time, discourage those who are not interested in the merchandise from entering the store. It is the need of the hour for the retailers to understand the interests of the customers at different times in order to influence their purchase decision.

### **STATEMENT OF THE PROBLEM**

The main advantage of in-store advertisement is costs less, but it still can improve the sales. In-store promotions can prompt consumers to recall a product and thus instigate a purchase. In-store design and consumer relationship marketing (CRM) directly affected the way customers purchase and retain goods. In-store traffic a steady stream of existing and new customers visit a retail stores influence customer purchasing decisions. In-store displays and marketing are also helpful to customers as reminders of things that they need but forgot to put on their list. In-store Advertising helps the customers to try new products or services in the store. In-store Advertising helps to change the customers' buying habits from their typical routine or to introduce new goods and services in the store. In-store advertising costs less, but it still can improve the sales. In-store Advertising is helpful to put out information for customers to use, but it is also good marketing to have someone available to help customers find what they need. In-store Advertising is focused on the idea that once the customer is in the store he/she is going to buy more than they might've first wanted to. Once the customers visit the store, it should be in an even better position to take advantage of the fact that they are in the store by having a strong marketing push. This has proposed to investigate the relationship between promotion of in-store advertisement and the purchasing decision of the consumers. Hence, the present study has been taken up.

### **OBJECTIVES OF THE STUDY**

1. To study the impact of consumer profile on in-store Advertising.
2. To understand perceptions and consumer's purchase behaviour in relation to in-store advertisements in selected stores in Vellore City.
3. To understand what in-store factors motivates people to buy the product.
4. To understand the important components relating to in-store advertisement.
5. To understand the impact of in-store advertisements and media on the type of product Purchased in selected stores in Vellore City

### **REVIEW OF LITERATURE**

Review of literature is an essential part of a research and is a careful examination of a body of literatures pointing toward the answers to the current research questions. This not only explains the need for the proposed study, it also appraises the shortcomings and gaps in the previous studies. Review makes the researcher aware of the current progress made in the area and provides the needed insight into the problem statement.

**Rajesh Kesari et al (2011)** explain CRM as a business strategy that attempts to ensure every customer interaction. It always emphasize on building of ‘bond’ between customers and retailers right from the first interaction. CRM is the overall process of building and maintaining profitable customer relationships by delivering superior customer value and satisfaction. It deals with all aspect of acquiring, keeping and growing customers.

**Rajesh Rajaguru (2011)** suggests that functional attributes facilitate the shoppers’ motive of hedonic and utilitarian value and interestingly, Indian supermarkets have the capability of offering hedonic and utilitarian value to shoppers, while the traditional markets are far behind. However, store appearance at both supermarket and traditional markets failed to motivate the shoppers shopping value..

**Ramakrishnan (2012)** found out the determinants of Retail Service Quality Model in departmental stores in Tamil Nadu. The factors considered by the researchers were Physical aspect, Policy, Problem solving, Reliability, and Personal interaction. Further, found the RSQS model helps the retailers to understand the customers and to improve the service quality.

**Jobber (2012)** defines Advertising as any paid form of non-personal communication or ideas or products in the prime media, i.e. television, press, posters, cinema & radio. Each person has his or her own personal relationship with a brand & so every Advertising response is unique. Advertising’s effects happen concurrently and interactively.

So can only tell about some of the explicit and probably rational) bits that they remember! But even this can be misleading because implicit & explicit take-out is often unrelated (**Banaji and Bhasker, 2012**) Compounding this problem, pre knowledge and

expectations are incorporated into new “memories”, so that what people say about the advertisement is likely to be colored by pre knowledge and so does not reflect what they really took from the advertisement.

## **RESEARCH METHODOLOGY**

In this chapter, the research methodology used in this study is described and the research propositions relating to the objectives of the study are stated. The main theme of the study is described as In-Store Advertising, Promotions and its impact on consumers purchase decisions in selected stores in Vellore City. In addition to that the relevant variables for the presence study, the structured questionnaire design and techniques used to analyse the data are stated.

### **Research Design**

Research Design is the overall plan for conducting the research in order to find out the answers for the research questions / hypotheses set in the beginning. It should be comprehensive and to include all the relevant aspects for conducting the research at a reasonable cost and time. This includes the sampling technique, the collection of data through various instruments, proper statistical tools to do the data analysis and interpreting the same. This study is basically an explorative one, wherein the primary data is sought through a structured questionnaire to answer the questions based on the relevant hypothesis.

### **Sources Of Data**

The survey method was deployed in this study to gain insight and knowledge as how the consumer perceive the in store advertisement and stores layout influences to purchase the products from the stores and also the stores layout could use for the consumers to identify the location for the various branded products available in the departmental stores. The primary data of the study was collected through a structured questionnaire and the relevant secondary data was collected through journals, magazines, newspapers, research articles, published information and details from websites of the retail stores were taken for study.

### **Selection of Respondents**

Vellore city is a vast growing city in terms of business, employment; per capita income and purchasing power of consumers in growing economic scenario. In addition to that Vellore represents the good section of respondents belonging to different income level and qualified group. Therefore the respondents residing in Vellore were taken for the study. Both male and female consumers were approached and requested to fill out the questionnaire, irrespective of their age, educational qualifications, occupation, monthly income, location etc. Each of the research subjects responded to a questionnaire on demographical details and other variables related to the study.

### **Selection of Retail Stores**

The retail stores were chosen based on their volume of business and spread of their business locations across the Vellore City. The leading retail stores who are in the field for more than 15 years of retail service in Tamil Nadu and other states were chosen in Vellore City. The retail stores selection for the study was also based on volume of the operations, reputation, size of the shop and location of the shop in heart of the city.

### **Sampling Design**

It is the theoretical basis and the practical means by which data are collected so that the characteristics of a population can be inferred with known estimates of error. The following subdivisions explain the sampling design of this thesis.

### **Selection of Sampling Area**

This research has been carried out in Vellore City as it is a place with different profiles of the consumers available and thus can be used to arrive at meaningful conclusion regarding the perception of the consumers towards stores advertisement and stores layout.

### **Sampling Technique**

The sampling technique used in this study is convenience sampling. Convenience sampling is a type of non-probability sampling which involves the sample being drawn from that part of the population which is close to hand.

### **Sample Size**

As the population is infinite but huge in numbers convenience sampling was adopted for the study. There are several approaches to determining the sample size. These include a census for small populations, imitating a sample size of similar studies, using published tables, and applying formulae to calculate a sample size. In this study, we presume that population size is infinite and unknown; the formula was applied to know the sample size, and found the sample size 150 meets the requirements.

### **Questionnaire**

A structured questionnaire was administered to collect the primary data. The Likert's 5 point scale method was found suitable for the study, as it has a good viability and most importantly it is easy for the respondents of varying educational level to understand and respond.

## **STATISTICAL TOOLS USED**

### **T Test**

The *t*-test is the most commonly used method to evaluate the differences in means between two groups. In this study, the *t* test is used to find the difference between genders with reference to various factors of level of expectation and level of satisfaction.

### **Factor Analysis**

Factor analysis is a statistical method used to describe variability among observed variables in terms of a potentially lower number of unobserved variables called factors. In other words, it is possible, for example, that variations in three or four observed variables mainly reflect the variations in a single unobserved variable, or in a reduced number of unobserved

variables. Factor analysis searches for such joint variations in response to unobserved latent variables.

### LIMITATIONS OF THE STUDY

- The study is a sample based study and the inferences derived from the analysis and interpretation are expected to be representative of the total population However the study is subject to following limitations:
- The area of the study is limited to Vellore City. Hence the sample may have the limitations pertaining to the area, tradition, custom and culture of the people in that place.
- The respondents belong to the consumers in the retail stores for study so study was under taken in the branded shops.
- The survey was conducted during the first half of the year 2012, so the time might be a constraint and consumers mind set is varying from time to time.

### DATA ANALYSIS AND INTERPRETATION

#### Response Rate

The questionnaires were administered outside of the convenience stores that participated in the study. The total number of respondents that completed valid questionnaires as part of the survey was 150.

**Table 1.1**

#### Summary of the gender wise respondent

	Frequency	Percentage
<b>Gender</b>		
Male	90	60
Female	60	40
<b>Total</b>	<b>150</b>	<b>100</b>
<b>Age</b>		
Below 30	39	26
31-40	66	44

41-50	30	20
Above 50	15	10
<b>Total</b>	<b>150</b>	<b>100.00</b>
<b>Qualification</b>		
Up to HSC	39	26
UG	81	54
PG	30	20
<b>Total</b>	<b>150</b>	<b>100</b>
<b>Income</b>		
Below-10000	27	18
10001-20000	57	38
20001-30000	42	28
Above-30000	24	16
<b>Total</b>	<b>150</b>	<b>100</b>

Gender is one of the most important factors in the respondent's demographic profile to determine the level of perception of male and female. The above table shows out of 150 respondents 60% respondents are under the category of male and 40% respondents are belongs to female categories for this research inferences. Most of the respondents (60%) are male.

Age is one of the important demographic parameters.. The above table shows that out of 150 respondents 26% of the respondents are below 30 age category, 44% of the respondents are from 31-40 age categories, 20% of the respondents are from 41-50 age category and 10% of the respondents are above 50 age category. Most of the respondents (44%) are under the category of 31-40 age groups.

In the above analysis, out of 150 respondents 26% of the respondents have higher secondary school level, 54% of the respondents have graduate level, and 20% of the respondents have Post graduate level education. Most of the respondents (54%) are graduates.

The above analysis exhibits out of 150 respondents 18% of the respondents are having monthly income of less than rupees 10,000 per month, 38% of the respondents are having income between 10,001-20,000, 28% of the respondents are having income between 20,001-

30,000 and 16% of the respondents are having income of greater than rupees 30,000 per month. Most of the respondents (38%) are in the income level of 10,001 to 20,000 categories.

### Factor Analysis

**Table 1.2**  
**Summary of the Factor Loadings of parameters relating to last seen in-store Advertisement effectiveness**

S.No	Parameters	Factor 1 “Best advertisement”	Factor 2 “Strategic advertisement”
1	The advertisement is believable	-	0.839
2	The advertisement is message is relevant to me	-	0.637
3	The advertisement was placed in a strategic location	-	0.837
4	This advertisement is much better than other advertisements for products in this product category	0.577	-
5	The advertisement is well lit	0.838	-
6	The advertisement is attractive	0.621	-
7	The communication is done properly	0.841	-

The Factor analysis essentially tries to identify the underlying central factors in a mass of data. Here the Factor analysis was done, in order to unearth the factors in respondent’s minds when they rated the In-store advertisements. The Factor analysis was applied using Principal Component Analysis and varimax rotation. The analysis unearthed two factors. The first factor can be called the “Best Advertisement” factor and the second factor can be called the “Strategic Advertisement” factor.

### FINDINGS

- It is found that 60% respondents are under the category of male and 40% respondents are belongs to female categories for this research inferences. Most of the respondents (60%) are male.
- It is found that 26% of the respondents are below 30 age category, 44% of the respondents are from 31-40 age categories, 20% of the respondents are from 41-50 age category and 10% of the respondents are above 50 age category. Most of the respondents (44%) are under the category of 31-40 age groups.
- It is found that 26% of the respondents have higher secondary school level, 54% of the respondents have graduate level, and 20% of the respondents have Post graduate level education. Most of the respondents (54%) are graduates.
- It is found that 18% of the respondents are having monthly income of less than rupees 10,000 per month, 38% of the respondents are having income between 10,001-20,000, 28% of the respondents are having income between 20,001-30,000 and 16% of the respondents are having income of greater than rupees 30,000 per month. Most of the respondents (38%) are in the income level of 10,001 to 20,000 categories.
- It is found that 38% of the respondents go to shop once in a week, 48% of the respondents go for shopping twice in a week and 14% of the respondents go for shopping thrice or more. Most of the respondents (48%) have a purchase frequency of twice in a week.
- It is found that 6% of the respondents say that idea of in-store advertisement is not beneficial, 8% of the respondents say that idea of in-store advertisement is somewhat beneficial, 28% of the respondents say that idea of in-store advertisement is beneficial and 58% of the respondents say that idea of in-store advertisement is very beneficial. Most of the respondents (58%) express their views the stores advertisements are more beneficial to identify the various branded products that are available in stores.

- It is found that 14% of the respondents are interested in purchasing low cost products (less than rupees 10, because of in-store advertisement, 42% of the respondents are interested in purchasing of medium cost products (Rs. 10.00-100.00) because of in-store advertisement and 44 % of the respondents are interested in purchasing of high cost products (above Rs.100.00) because of in-store advertisement. Majority of the respondents (around 86%) purchase both medium and high cost products.
- It is found that majority of the respondents 64% are very much influenced to buy the brand after seeing the in-store Advertising, 20% of the respondents are somewhat influenced after seeing the in-store Advertising and 16% of the respondents are not at all influenced to buy after seeing the in-store Advertising. In the overall analysis, majority of the respondents 64% feel very much influenced by stores advertisement to buy the branded product.
- It is found that majority of the respondents 56% found 'food' items in in-store advertisements, 16% of respondents found cleaning items in in-store, 4% respondents found cosmetics, 2% of respondents found kitchen appliance, 6% respondents found clothes, 4% respondents found crockery, 2% respondents found shoes and 4% respondents found other items in in-store. Majority of the respondents (56%) found food products in the stores advertisements.

### **SUGGESTIONS**

The following suggestions given by the respondents to improve services and In-store advertisements at convenience stores.

1. Add new product lines that are new and exciting. These can be given special offers in the In-store advertisements.
2. Special advertisements and offers during festivals
3. Provide adequate training to store staff in the areas of product knowledge, location, etc.
4. Providing low prices, wider selection and convenient hours.
5. Have a customer feedback system

6. Having appropriate return policies with cash refunds when required.
7. Extend store hours.
8. Consider justified complaints.
9. Convenient parking facilities
10. Have In-store advertisements that motivate to buy the product
11. Use strong headline in the advertisements
12. Use memorable messages
13. Use different ways to arrange and display merchandise that will make it easier for customers to buy
14. Find the price range that customers are willing to pay for various products and concentrate on that range of merchandise
15. Have distinctive merchandise that is different from competition.

## CONCLUSION

In-store Advertising, long the backwater of Advertising, is now getting a fresh look by marketers. While studies have focused on other types of marketing communication, not many researchers have focused on in store communication. Increasingly marketers are realizing that the in store environment is a critical marketing communications touch point and one that they need to get right to succeed. It is now found that the majority of purchase decisions are made at the shelf. With competition thickening there is increasing urgency for brands to become even more strategic about how they communicate with consumers in store. The present study is focused on In-Store Advertising, promotions and its impact on consumers purchase decisions of the respondents in Vellore City.

The study looks at all aspects of In-store Advertising; it looks at consumer perception on various aspects of in store communication, starting from the type of Advertising vehicles, the benefits of in store advertisements, the qualities of in store advertisements, the advertisement messages, the type of in store advertisements, adjectives used to describe the In-store advertisements and store offers. The study was an eye opener about in store advertisements. The

study revealed that In-store advertisements are powerful influencers and people find them very beneficial. Marketers need to deliberate on the findings of this study and look at what consumers prefer and what they don't, in In-store advertisements. The preferred vehicles, the top benefits, the top qualities of the advertisement, the top messages, the top type of advertisement vehicle and the top adjectives are all revealed.

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**COLLECTIVE BARGAINING – A STUDY WITH REFERENCE TO BY BHEL / BAP /  
RANIPET**

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**ABSTRACT**

Initially, individual employees negotiated directly with a potential employer on the wages they would receive for the service provided. With the growth of population, however, and the pace of industrialization, large numbers of people entered the labour market. This brought about several changes. Individual employers and employee did not find it convenient any more to negotiate individually, owing to the pressure of time, variances in rewards for the services rendered and, significantly, the ability to push for more as a group on the employees' part. Employers also found it more convenient to deal with a group rather than individuals. A variety of demographic, ideological and technological development has taken place since the beginning of the nineteenth century. At the same time, workers' trade unions grew steadily. Both war and inflation made workers feel the need to push for more wages. These two factors coupled with the fear of unemployment and consequent loss of wages gave a further impetus to collective action and unionisation. There are various techniques of collective bargaining that are adopted in industries. Through this research study, the researcher is going to find out whether the benefits are fully reaching the employees to their satisfaction.

**INTRODUCTION**

The growth of collective bargaining was linked to the growth of trade unions of employees at first and of employers later. The changed master servant relationship because of the Industrial Revolution and the changed work place environment left the wage-earner with fewer resources to live on while unemployed. In the early stages, groups or individual workers would go to their employers and present their grievances and demands of them. The pattern of growth

of collective bargaining in some countries began from local bargaining at plant level to region-cum-industry level and finally to national level bargaining. This pattern gave a systemic push to employers to organize themselves and has in many instances led to collective bargaining between employers' organizations and employees' organizations (trade unions).

### **Concept of collective bargaining**

The process is 'collective' because issues relating to terms and conditions of employment are solved by representative of employees and employers in groups rather than as individuals. The term 'bargaining' refers to evolving an agreement using methods like negotiations, discussions, exchange of facts and ideas, rather than confrontation. The process of collective bargaining is bipartite in nature, i.e. the negotiations are between the employers and the employees, without a third party's intervention. The objective of collective bargaining is to come to an agreement. The process of collective bargaining is that divergent viewpoints are put forth by the parties concerned, and through negotiations, a settlement is arrived at.

### **Salient features of collective bargaining are:**

1. It is a 'group' process; wherein one group representing the employers and the other representing employees sit together to negotiate terms of employment.
2. It is a process in the sense that it consists of a number of steps. The starting point is the presentation of the charter of demands and the last stage is the reaching of an agreement, or a contract which would serve as the basic law governing labour-management relations over a period of time in an enterprise.
3. Negotiations form an important aspect of the process of collective bargaining i.e., there is considerable scope for discussion, compromise or mutual give and take in the collective bargaining deliberations rather than confrontation.
4. It is a bipartite process. The employers and the employees are the only parties involved in the bargaining process. There is no third party intervention. The conditions of employment are regulated by those directly concerned.

The concept of collective bargaining needs to be understood in its proper perspective. It is not merely a replacement of the market place haggling by a group of workmen with an employer. Flanders identifies the distinctive nature of collective bargaining to be basically a political institution in which the rules are made by the trade unions of workers, employers and corporations / organizations. Secondly, since the two aspects of administration and legislation are interlinked, there is a considerable degree of joint regulation by both the parties, governed by the conventions and customs that prevail at the enterprise level. Thirdly, collective bargaining is not merely an economic process, but more a socio-economic one. The values, aspirations and expectations also play a significant role.

### **Meaning and Definition**

‘Collective bargaining’ is a technique used for compromising the conflicting interests of the employer and the employees. It involves discussion and negotiation between the workers and the management on every important aspect of work – pay, working conditions, career advancement, production target, sales target, quality standards, etc.

The word ‘Collective’ is used because the representatives of both the employer and the employees meet and discuss in order to arrive at a settlement. The word ‘Bargaining’ is used because during the process of negotiation certain proposals and counter proposals are made from either side.

### **Characteristics of Collective Bargaining**

- 1. It is voluntary process-** Both the management and the employees voluntarily participate in the negotiations and arrive at a solution.
- 2. It is a group activity-** The representatives of management and those of employees meet and discuss any important proposal and therefore collective bargaining is a group activity.

3. **It is mutual** - Collective bargaining can work only when the management and the employees accept their respective responsibilities. For its success and atmosphere that is free from grudge and animosity is required. It is a mutual give – and - take rather than a take-it-or-leave-it approach of reaching a settlement.
4. **It has flexibility**- Collective bargaining provides scope for compromise and for a settlement that is mutually acceptable and beneficial. Neither the management nor the representative of the employees can have a rigid stand on any matter.
5. **It is dynamic** - Gone are the days when the employees and employers used to become emotional while negotiating the terms and conditions of work. Collective bargaining ensures now that any such negotiation is done in a more systematic and scientific manner.
6. **It is an on-going activity** -Collective bargaining is a continuous process. It requires continuing and organised relationships between the representative of both the management and workers. It does not end with a single transaction.
7. **It is complementary in nature** - In collective bargaining employees do not compete with management and vice versa on any matter. Rather, they try to complement each other, i.e. management gives the employees what they want and employees give the management what it wants.
8. **It is a democratic process** - Collective bargaining gives the employees the right to be heard. It is a joint formulation of management policies on all matters affecting the interests of employees and not a mere signing of agreements granting certain benefits to the employees.

### ***Objectives of Collective Bargaining***

1. **To promote a democratic approach to solving work related problems** -One of the main objectives of collective bargaining is to provide an opportunity for the employees to depute their representative for talks with the representatives of the management to find a

solution to certain work related problems. The views of the employees, thus, are heard by the management. Collective bargaining, therefore, ensures a democratic approach to solving the problems of the employees.

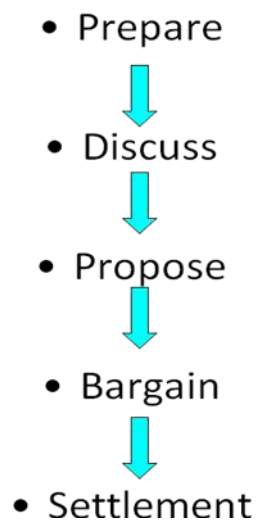
2. **To do away with the need for third party intervention for finding solution** -In the absence of a proper approach to finding a solution to the grievances of the employees, the intervention of a mediator may be necessary. In collective bargaining, the management and the employees strive to arrive at a settlement without third party intervention.
3. **To provide for better employer-employee relationships-** Both the management and the employees are prepared for talks on issues of common interest. Each group is particular that it should understand and respect the sentiments of the other should the talks be fruitful. Collective bargaining, thus, provides scope for better labour – management relationships.
4. **To prevent unilateral action on the part of the management-** Another important objective of collective bargaining is to ensure that the management does not take unilateral decisions on matters affecting the interests of the employees. It ensures employees' participation in all such decisions.
5. **To ensure that trade union is given due recognition-** Collective bargaining cannot take place if the management is not prepared to recognise the trade union. It is only the union officials who represent the employees and hold talks with the representatives of the management.
6. **To arrive at a settlement that is mutually beneficial** -The settlement reached between the management and the employees should always be mutually beneficial. For example, if the management comes out with a proposal and the representatives of the employees express their views, both make a compromise and arrive at the final decision.

### **Collective Bargaining Process**

The bipartite collective bargaining process usually starts with a charter of demands being presented to the management by the unions on behalf of their constituent members. A fresh charter is submitted upon the expiry of an earlier agreement. If there is an existing agreement between management and union, as is often the case, then till the fresh agreement is signed, the provisions of the existing agreement would continue till it expires.

The other major policy issue is the stance management take towards the union from a tough stance to an accommodating or conceding one. Amongst the managerial group, therefore, these issues will have to resolve and a unified stand presented at the negotiating chart.

## Collective Bargaining Process



### NEEDS OF THE STUDY

There are various techniques of collective bargaining that are adopted in industries. Through this research study, the researcher is going to find out whether the benefits are fully reaching the employees to their satisfaction. The Researcher can find out the effectiveness and efficiency of these collective bargaining techniques through this research study. This research study also helps to find out the employees job satisfaction through the collective bargaining.

## OBJECTIVES OF THE STUDY

Objectives of collective bargaining may be described as follows;

1. To identify the dynamics of the collective bargaining process in terms of its principles, stages, composition of the panel of negotiations and strategies used in the negotiation.
2. To determine and correlate the outcomes of the collective bargaining process in terms of the common political and economic issues covered in the collective bargaining agreement (CBA).
3. To identify significant differences in the number of strategies used by the parties, number of political and economic issues negotiated and number of success factors experienced in the collective bargaining process based on the type of industry of the firms and union affiliation with a federation.
4. To analyse the difficulties / problems encountered by the union and management during the collective bargaining negotiations and
5. To determine the factors that contributes to the success of collective bargaining negotiations.

## STATEMENT OF THE PROBLEM

The collective bargaining techniques are to bring about the development of the whole personality of the workers to make him a good worker and good citizen. These collective bargaining techniques are flexible and ever changing. It should be planned properly and implemented in the right time for the better outcome of the employees. The area pattern of bargaining has moved from simple style plant bargaining to region-wise and finally to dynamic nature of the scope of collective bargaining. At the same time, they show how important negotiation has become as an institution. In the words of C.W. Randle:“The subject matter of collective bargaining had broadened until it has virtually eliminated the field of the management prerogatives. And the future holds promise of an even greater role for collective”. This study

helps to analyse and examine the collective bargaining techniques adopted by BHEL –Ranipet, which is selected as the study area.

### SCOPE OF THE STUDY

The growth of collective bargaining is associated with the recognition of trade unionism. With the growth of trade unions and industrialization the scope of collective bargaining is expanding. Initially collective bargaining was used for determining hours of work, wages and terms of employment, but now within its purview are included the issues like leave with pay, regulation of forced leave, pension, seniority promotions, sickness and maternity benefits, etc. Since in the field of bargaining collective action is now common, collective bargaining has assumed an institutional form.

### LIMITATION OF STUDY

- ❖ The data is limited to the sample population of workers at Bharat Heavy Electrical Limited – Ranipet.
- ❖ Due to security reasons the interviews were conducted to workers either outside BHEL premises or during non-working hours.
- ❖ The study was limited to BHEL – Ranipet alone and so results may not be generalized.

### REVIEW OF LITERATURE

**D.C. Bok and J.T. Dunlop.** Some maritime agreements specify the quality of meals and even the numbers of bars of soap, towels, and sheets that management is to furnish to the crew. Such provisions are natural subjects for negotiation, since they are vital to the men at sea, but they would make no sense in a normal manufacturing agreement.... Detailed procedures respecting control over hiring are central to collective bargaining in industries with casual employment, where employees shift continually from one employer to another, as in construction or stevedoring; but in factory and office employment, new hiring typically is left to the discretion of management.

**Stephen P. Robbins.** He has been placed in a leadership position because he holds the trust of the group and will be expected to represent the views held by his constituencies. But in the bargaining process, any sign shown by this leader of his willingness to compromise demonstrates weakness in the constituency's view and threatens his power position. Should he be in a position to resolve the issue so as to make his group a clear winner, at the expense of the other, he returns a hero. Should the compromise be made at his group's expense, the leader returns a loser and finds his leadership position deteriorated.

**William H. Holley and Kenneth M. Jennings.** Once a contract is agreed upon and ratified, it then must be administered. The way it will be administered is included in the contract itself. For instance, 70 percent of collective bargaining contracts include management right provision that specifically state management's prerogatives. The most important element of contract administration has to do with the spelling out of a procedure for handling contractual disputes. Almost all collective bargaining agreements contain formal procedures to be used in resolving grievances over the interpretation and application of the contract. For instance, approximately 99 percent of all labour contracts have provisions in their agreements for resolving specific, formally initiated grievances by employees concerning dissatisfaction with job-related issues.

**Holly and Jennings.** Grievance procedures are typically designed so as to resolve grievances as quickly as possible and at the lowest level possible in the organization. As such, the first step almost always has the employee attempt to resolve the grievance with his or her immediate supervisor. If it cannot be resolved at this stage, it is typically discussed with the union steward and the supervisor. Failure at this stage usually brings in the operations superintendent, someone from the organization's industrial relations department, or the facilities' manager. When the grievance still cannot be resolved, it is usual for a third-party arbitrator to hear the case and make a ruling. In practice, we find that 99 percent of all collective bargaining agreements provide for arbitration as the final step in an impasse.

**Bok and Dunlop.** Rejection of agreements; twenty years ago when a contract had been

agreed to by labour and management representatives, the contract's ratification was, for all intents and purposes, merely a rubber-stamping activity. In fact, it was not unusual for there to be no ratification vote. Not so today we now find an increasing number of instances where the union membership turns down the final agreement resolved through negotiations and sends its representatives back to the bargaining tables.

**Holley and Jennings.** The second trend we have identified is the growing militancy of public employees. This is most evident in the increasing number of work stoppages and strikes in the public sector, even in the face of state laws forbidding public-sector strikes. Strikes by employees of state and local government have sometimes occurred at a rate of more than forty a month.

### COMPANY PROFILE

BHEL is the Largest Engineering and Manufacturing Enterprise in India in the energy related / infrastructure sector today. BHEL was established more than 40 years ago. When its first plant was set up in Bhopal ushering in the indigenous Heavy electrical Equipment Industry in India, a dream which has been more than realized with a well-recognized track record of performance. It has been earning profits continuously since 1971 -72, and achieved a sales turnover of Rs.7286.6crores with a Pre-Tax profit of Rs.662.8crores in 2001 - 2002. BHEL caters to core sectors of the Indian Economy viz., Power Generation & Transmission, Industry, Transportation, Telecommunication, Renewable Energy, Defence etc,. The wide network of BHEL's 14 Manufacturing Divisions, Four Power Sector Regional Centers over 100 Project sites, Eight service center's and 18 Regional offices, enables the Company to promptly serve its customers and provide them with suitable products, systems and services - efficiently and at competitive prices. BHEL has already; attained ISO 9000 Certification for Quality Management and ISO 14001 certification for Environment Management.

### DATA ANALYSIS AND INTERPRETATION

Result and Discussion plays a vital role in every research. This chapter clearly represents the data and statistical analysis with the help of tables and diagrams to analyse and to interpret the data logically in order to bring out the main findings. Based on the findings suggestions

could be made. The research had done analysis with the help of SPSS packages, which has helped the researcher immensely to frame this chapter successfully. Analysis is not complete without interpretation, Interpretation cannot proceed without Analysis, and both are mutually interdependent. It is the task to make use of interpretation as the tool to find out a link or a position of the study in whole analytical frame work. Keeping this in mind, the researcher has analysed all the variable to give a clear picture about the study and make use of the statistical application, wherever it is necessary to find out the relationship between the variables.

**TABLE – 1.1****Gender – Wise distribution**

	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
<b>GENDER</b>		
Male	97	97%
Female	3	3%
<b>Total</b>	<b>100</b>	<b>100%</b>
<b>STATUS</b>		
Married	65	65%
Unmarried	35	35%
<b>Total</b>	<b>100</b>	<b>100%</b>
<b>QUALIFICATION</b>		
SSLC	7	7%
ITI	84	84%
Graduate	6	6%

Post Graduate	3	3%
<b>Total</b>	<b>100</b>	<b>100%</b>
<b>EXPERIENCE</b>		
Less than 10 years	40	40%
11 to 15 yrs	5	5%
16 to 20 yrs	18	18%
Above 20 yrs	37	37%
<b>Total</b>	<b>100</b>	<b>100%</b>

It is found that 97% of workers are male 3% of the workers are Female. Thus, It is clear that majority of the workers are male in the organization. It is found that 65% of workers are married and 35% of workers are unmarried. So, majority of workers are married. It is found that 7% of workers have studied up to SSLC, 84% of workers upto ITI, and 6% of workers up to Graduate, 3% of workers up to post Graduate. Thus majority of workers have studied up to diploma level. It is found that 40% of workers have less than 10 years of experience, 5% of the workers have 11 to 15 years of experience, 18% of the workers are 16 to 20 years of experience, 37% of workers have more than 20 years of experience. Thus, majority of workers have experience.

**The management rules and regulation governing the labour force are periodically reviewed at BHEL-Ranipet.**

**Null Hypothesis (H0):** There is no significant difference in the opinion of the employees regarding the management rules and regulations governing the labour force are periodically reviewed at BHEL-Ranipet, based on their experience.

**TABLE-1.2**

Level of Rating	Experience				Total		Sig
	Up To 20 Years		Above 20 Years				
	No.	%	No.	%	No.	%	
Strongly agree	24	38.10	8	21.62	32	32	0.344
Agree	27	42.86	24	64.86	51	51	
Disagree	12	19.04	4	10.81	16	16	
Strongly disagree	0	0	1	2.7	1	1	
<b>Total</b>	<b>63</b>	<b>100</b>	<b>37</b>	<b>100</b>	<b>100</b>	<b>100</b>	

As ‘P’ value is 0.344 which is greater the value at 5% (0.05) level Null Hypothesis is accepted. Hence it is concluded that the management rules and regulation governing the labour force are periodically reviewed at BHEL-Ranipet.

**Employees are beneficiaries of collective bargaining system at BHEL-Ranipet.**

**Null Hypothesis (H0):** There is no significant difference in the opinion of the employees regarding Employees are beneficiaries of collective bargaining system at BHEL-Ranipet, based on their experience.

**TABLE-1.3**

Level of Rating	Experience				Total		Sig
	Up To 20 Years		Above 20 Years				
	No.	%	No.	%	No.	%	
Strongly agree	17	26.98	6	16.22	23	23	0.256
Agree	40	63.49	31	83.78	71	71	
Disagree	4	6.35	0	0	4	4	

Strongly disagree	2	3.17	0	0	2	2
<b>Total</b>	<b>63</b>	<b>100</b>	<b>37</b>	<b>100</b>	<b>100</b>	<b>100</b>

As 'P' value is 0.256 which is greater the value at 5% (0.05) level Null Hypothesis is accepted. Hence it is concluded that Employees are beneficiaries of collective bargaining system at BHEL-Ranipet.

**Collective bargaining results in greater reliance on management skills and union members' power.**

**Null Hypothesis (H0):** There is no significant difference in the opinion of the employees regarding Collective bargaining results in greater reliance on management skills and union members' power, based on their experience.

**TABLE-1.4**

Level of Rating	Experience				Total		Sig
	Up To 20 Years		Above 20 Years		No.	%	
	No.	%	No.	%			
Strongly agree	21	33.33	11	29.73	32	32	0.433
Agree	37	58.73	25	67.57	62	62	
Disagree	3	4.76	1	2.70	4	4	
Strongly disagree	2	3.17	0	0	2	2	
<b>Total</b>	<b>63</b>	<b>100</b>	<b>37</b>	<b>100</b>	<b>100</b>	<b>100</b>	

As 'P' value is 0.433 which is greater the value at 5% (0.05) level Null Hypothesis is accepted. Hence it is concluded that Collective bargaining results in greater reliance on management skills and union members' power.

**FINDINGS**

- It is found that 38% of the respondents strongly agree collective bargaining increase the employees decision making power, 46% of the respondents agree, 15% of the respondents disagree, 1% of the respondents strongly disagree.
- It is found that 39% of the respondents strongly agree with the statement, 55% of the respondents agree, 6% of the respondents disagree, 0% of respondents strongly disagree.
- It is found that 40% of the respondents strongly agreed collective bargaining promotes the sense of Job security, 54% of the respondents agree, 4% respondents disagree, 2% of the respondents strongly disagree.
- It is found that 45% of the respondents are strongly agree with the workers motivation is increases by the collective bargaining, 45% of the respondents are agree, 9% of the respondents are disagree, 1% of respondents are strongly disagree. Thus, It is clear that majority of workers motivation increases by the collective bargaining at BHEL – Ranipet.
- It is found that 43% of respondents strongly agree with the statement that collective bargaining facilities the information sharing among the management and workers 42% of the respondents agree, 11% of the respondents are disagree, 4% of the respondents are strongly disagree.
- It is found that 35% of the respondents strongly agree with the statement that leads of peaceful environment of the organization 50% of the respondents are agree, 13% of the respondents disagree, 2% of the respondents are strongly disagree.
- It is found that 26% of the respondents are strongly agree with the statement that organization objectives are fulfilled by collective bargaining. 60% of the respondents are agreed, 13% of the respondents are disagree, 1% respondents are strongly disagree.

### **CONCLUSION & SUGGESTIONS**

A lot has been discussed about the development of collective bargaining in BHEL. But in fact, collective bargaining which is a two way affair, has been used at present only as a one-way exercise in which the union, as the aggressive partner, makes the demands, and the management, as the passive partner, derives satisfaction merely by countering the extent to which it is able to

minimize the additional burdens while meeting the union's demands. There are not many examples even now where union as well as the management, as equal partners, have approached the process of collective bargaining with the objective and spirit that collective bargaining must bring concrete benefit to both the parties. The following steps should be taken for the success of collective bargaining in BHEL:

1. **Strong Trade Union:** A strong and stable representative trade union is essential for effective collective bargaining. For having such a trade union, workers should have freedom to unionize so that they can exercise their right of unionization and form a trade union for the purpose of electing their representatives for collective bargaining. A weak union not enjoying the support of majority of workers is not likely to be effective. The management will not negotiate with such a union; because mutual agreements are not likely to be honoured by a large section of the labour-force. Moreover, there is always a danger that non-union members may sabotage it.
2. **Compulsory Recognition of Trade Unions:** There must be an acceptable and recognised bargaining agent. That means that there must be recognised union or unions to negotiate the terms and conditions of the agreement with the management. Recognition of trade union has to be determined through verification of fee membership method. The union having more membership should be recognised as the effective bargaining agent.
3. **Mutual Accommodation:** There has to be a greater emphasis on mutual accommodation rather than conflict or uncompromising attitude. Conflicting attitude does not lead to amicable labour relations; it may foster union militancy as the union reacts by engaging in pressure tactics. The approach must be of mutual give and take rather than take or leave. The take or leave philosophy is followed in America where there is contractual labour. As of now this is not the case in India. So if the union and the management have to look for a long-term relationship they have to respect each other's rights.
4. **Enactment of Legislation:** The State should enact suitable legislation providing for compulsory recognition of trade union by employers. State has to play a progressive role

in removing the pitfalls which stand in the way of mutual, amicable and voluntary settlement of labour disputes. The new labour policy must reflect the new approach and new objectives.

5. **Mutual Trust and Confidence:** Trade unions and management must accept each other as responsible parties in the collective bargaining process. There should be mutual trust and confidence. In fact in any relationship trust is the most important factor. Management must accept the union as the official representative. The union must accept the management as the primary planners and controllers of the company's operations. The union must not feel that management is working and seeking the opportunity to undermine and eliminate the labour organisation. The company management must not feel that the union is seeking to control every facet of the company's operations.
6. **Efficient Bargaining Mechanism:** No ad-hoc arrangements are satisfactory for the reason that bargaining is a continuing process. An agreement is merely a framework for every day working relationships, the main bargain is carried on daily and for this there is a need to have permanent machinery.

As for machinery being efficient, it has three aspects:

- (a) Availability of full information
  - (b) Selection of proper representatives
  - (c) Recognition of natural temperament of each other.
7. **Emphasis on Problem-solving Attitude:** There should be an emphasis upon problem-solving approach with a de-emphasis upon excessive legalism. Litigation leads to loss of time and energy and it does not benefit anyone. Therefore the emphasis is to look for mutually acceptable solutions rather than creating problems for each other.
  8. **Political Climate:** For effective collective bargaining in a country, it is important to have sound political climate. The Government must be convinced that the method of arriving at the agreements through mutual voluntary negotiations is the best for regulating certain

conditions of employment. The provision for political fund by trade unions has to be done away with since it invariably encourages the politicians to prey upon the union. Therefore, positive attitude of the political parties is a must for the promotion of collective bargaining. Such an approach would help and encourage the development of strong, stable and representative trade unions, growth of mechanism for the resolution of industrial conflict, recognition of unions, etc.

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**A STUDY ON THE EFFECT OF QUALITY OF WORK LIFE (QWL) WITH SPECIAL REFERENCE TO VELLORE COOPERATIVE SUGAR MILLS LTD., AMMUNDI**

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**ABSTRACT**

Quality of work life denotes all the organizational inputs which aim at the employee's satisfaction and enhancing organizational effectiveness. By the globalization the modern employees are experiencing distress. To meet the challenges posed by present standards, organizational must focus their attention in bringing a balance between work life and personal life. The underlying assumption is that work life balance will ultimately ensure Quality of work life. In present working environment the workers are looking for quality of life as a superior human endeavor. Such endeavor calls for a trade-off between work life and family life. Today an employee desires work to be more meaningful and challenging because quality is the acid test. A Quality of work life gives an opportunity for deep sense of fulfillment. Employees seek a supportive work environment that will enable them to balance work with personal interests. Such balance contributes to superior human existence in ample measure. The research will be helpful to understanding the current position of the respective company and provide some strategies to extent the employee's satisfaction with little modification which is based on the internal facilities of the company. This study also helps in manipulating the basic exception of the employees.

*Key Words: Quality of Work Life*

**INTRODUCTION**

Quality of work life provides a more humanized work environment. It attempts to serve the higher order needs of workers as well as their basic needs. Quality of Work Life indicates that the work should not have excessively negative conditions. It should not put workers under undue stress. It should not damage or degrade their humanness. It should not be threatening or unduly dangerous. Finally it should contribute to, or at least leave unpaired, workers abilities to

perform in other life roles such as citizen, spouse and parent. That is work should contribute to general social advancement.

Employees in several companies that instituted Quality of work life experienced better health and greater safety on the job. Other benefits included improved employee satisfaction, morale, job interest, commitment and involvement ; increased opportunity for individual growth ; greater sense of ownership and control of the work environment development of managerial ability for circle leaders, improved communication in the organization and greater understanding and respect between management and workers. The term Quality of work life has been applied to a wide variety of organizational improvement efforts. The common elements seem to be, has good man indicates, an “attempt to restructure multiple dimensions of the organizational and to institute a mechanism which introduces and sustains changes overtime. Aspects of the change mechanism are usually an increase in problem solving between the union and management Responsiveness to employee concerns. In every organization, people and their behaviour assumes vital role in determining the performance and effectiveness. While many studies concentrated on physical and financial performance of organization. Studies on behavioural aspects seem to be inadequate. So, the attempts must to understand the human side of the enterprise.

In the present scenario, where the world is moving from traditionalisation to modernization, computerization and globalization there is an intense competition. The situations are becoming more complex and the modern employees are experiencing distress. To meet the challenges posed by present standards organization must focus their attention in bringing a balance between work and family life.

The Quality of work life movement provides a value frame work and a philosophy which has a long term implication for the human development and enrichment. It tries to balance both the work and family life. Hence integrated approach with regard to Quality of work life is required for the success of an individual and an organization. This underlines the necessity of searching studies on the nature of human relations and the problems of human relations and the

problems of human behaviour in the organization and suggest measures to cope with the problems. Hence, an in depth on aspects like Quality of work life can throw light on many non-identified aspects of human behaviour which may help in understanding the issues involved and improving the overall performance of these organizations. There it is found that there is need to study in greater detail about the topic.

## **QUALITY OF WORK LIFE**

Quality of work life refers to favorable or ungovernableness of the job environment for people .The basic purpose is to develop jobs and working conditions that are excellent for people as well as for the organization.

### **Quality of work life includes**

Walton proposed eight conceptual categories that together make up the quality of work life. They are,

#### **1. Adequate and fair compensation**

This refers to against to just and fair balance between efforts and reward. The compensation helps in manufacturing helps in maintaining a socially desirable standard of life. In India such labour legislations are payment of wages act, 1936 and minimum wages act, 1948 ensure adequate and fair compensation to the employees.

#### **2. Safe and healthy working conditions**

In order to improve quality of work life the work environment should be free from hazards or other factors determined to healthy and safety of the employees in the work place in India is ensured in the factories act, 1948, which lies down minimum standards of protection from machine and other hazards (noise, pollution, gases etc..) at the place of work.

#### **3. Immediate Opportunities to use and Develop Human Capacities**

The work today has become repetitive and fragmented. Quality of work life can be

improved if the job allows sufficient autonomy and control, uses a wide range of skills and abilities, provides immediate feedback to workers to take corrective action is seen as a total activity and provides opportunity to plan, implement by himself.

#### **4. Social integration in the work organization**

One of the effectiveness of quality of work life is to generate satisfying identity with the organization and develop a feeling as self esteem. The variables that inculcate these are absence of hierarchical status, opportunity for upward mobility, openness and trust, a sense of community feeling on the job and freedom from prejudice based on sex, caste, race, creed and religion.

#### **5. Constitution in the work organization**

Constitution guarantees as right to personnel privacy, free speech, equitable treatment and governance by the “Rule of Law” are necessary to upload to improve quality of work life

#### **6. Work and the Total life Space**

The demand of the work, like late hours, frequent travel, quick transfer are both psychologically and socially very costly to the employee and his family such phenomena Accruing o a regular basis necessarily depress the quality of work life.

#### **7. Social relevance of work life**

The organization lack of concern for social causes like waste disposal, low quality product, over-aggressive marketing. Employment practices make workers depreciate the value of their work and career, which in turn affects their self-esteem. The social responsibility of the organization is an important determinant of quality of work life. The basic concept underlying the quality of work life is “Humanization of Work”. It involves basically the development of an environment of work that stimulates the creative abilities of the workers generate co operation and interest in self growth.

#### **8. Promotion and Career Planning**

### **a. Promotion**

A promotion takes place when an employee moves to a position higher than the one firmly occupied. His/Her responsibility, status and pay also increases. Promotions are of two types.

1. Vertical promotions:- under which the employees are promoted from one rank to the next higher rank in the same department.
2. Horizontal promotions:- under which employees may be promoted to higher ranks on the other departments.

The advantages of having promotion schemes

- They provide an opportunity to the present employees to move into jobs that provide greater satisfaction and prestige.
- They generate within an organization motivational conditions for better work performance and desired behaviour of all its members.
- Finally, they serve as an orderly, logical and prompt source of recruitment for management to fill vacancies as they arise.

### **b. Career Planning**

If an organization wants to retain its employees it must satisfy their aspirations for growth and development of advancement in their career. A career plan is a blue print in which the entire career of employees is mapped out from the point of their entry into the point of their retirement from the organization. Career planning is mostly done for supervisory and managerial positions. Career planning is an integral part of manpower planning.

## **SIGNIFICANCE OF THE STUDY**

Quality of work life covers various aspects under the general umbrella of supportive organizational behaviour. Thus, the QWL should be broad in its scope. It must be evaluated the

attitude of the employees towards the personnel policies. The research will be helpful to understanding the current position of the respective company and provide some strategies to extent the employee's satisfaction with little modification which is based on the internal facilities of the company. This research can be further used to evaluate the facilities provided by the management towards the employees. This study also helps in manipulating the basic exception of the employees.

### **OBJECTIVES OF THE STUDY**

1. To study the quality of work life of the employees in Vellore Co-operative Sugar Mills Ltd.
2. To find out how quality of work life leads to high satisfaction.
3. To know the existing working conditions, industrial health and safety conditions help to improve the quality of work life.
4. To study the workers participation in Vellore Co-operative Sugar Mills Ltd.
5. To examine how the training and development programmes helps to improve the quality of work life.
6. To evaluate the aspects of quality of work life and suggest measures in improving quality of work life.

### **SCOPE OF THE STUDY**

The term Quality of work life in its broader sense covers various aspects of employment and non-employment conditions of work. The present study will aim at studying various factors which influence Quality of work life in Vellore Co-operative Sugar Mills Ltd..Although the important components of Quality of work life were comprehensively discussed. The study is dependent on the opinion expressed by the managers and staff of all the departments of the company that are working at Vellore Co-operative Sugar Mills Ltd.

### **LIMITATIONS OF THE STUDY**

1. Converting qualitative data into quantitative data may often lead to inaccurate results.

2. The respondents may not have expressed their strong negative feelings about the policies, which results in error of central tendency.
3. The Quality of work life involves a wider range. The present study examines it from identified and selected dimensions only. However it is possible that there may be other factors which might not have been covered in this study.
4. Some respondents did not properly respond to the Questionnaire; thus to eliminate this aspect the researcher has also conducted some personal interviews.
5. The Management allowed the researcher to collect the data from the limited respondents only.

## REVIEW OF LITERATURE

**Walton (1974)** attributes the evolution of quality of Work Life to various phases in history. Legislations enacted in early in early twentieth century to protect employees from job-injury and to eliminate hazardous working conditions, followed by the unionization movement in the 1930's and 1940's were the initial steps in this direction. Emphasis was given to job security, due process at the work place and economic gains for the worker. The 1950's and the 1960's saw the development of different theories by psychologists proposing a positive relationship between morale and productivity that improved human relations. Attempts at reform to acquire equal employment opportunity and job enrichment schemes also were introduced.

**Sekharan (1985)** observes that, historically the concept of Quality of Work Life had originally included only the issues of wages, working hours, and working conditions. However, the concept has now been expanded to include such factors as the extent of workers' involvement in the job, their levels of satisfaction with various aspects in the work environment, their perceived job competence, accomplishment on the job etc.

**Gani (1993)** in his study stated that the core of the Quality of Work Life concept is the value of treating the worker as a human being and emphasizing changes in the socio-technical system of thorough improvement, in physical and psychological working environment, design and redesign of work practices, hierarchical structure and the production process brought with the active involvement of workers in decision making.

In the words of **Kumar and Tripathi (1993)**, Quality of Work Life is a philosophy of management that believes co-operative relationship between employees and managers and also believes that every employee has the ability and right to offer his intelligence and useful inputs into decisions at various levels in the organizations. Quality of Work Life is a process to involve employee at every level of the organizations in the decisions about their work and workplace. It refers to the intended outcomes of practicing above philosophy and process with improvements in working condition, working environment, working climate or work culture. The process brings ultimate benefit to individual employee as well as to the organizations through individual development and increasing quality and productivity respectively.

**American Society of Training and Development (1979)** presented Quality of Work Life as a process of work organizations, which enables its members at all levels to participate actively and efficiently in shaping the organizations environment, methods and outcomes. It is a value based process, which is aimed towards meeting the twin goals of enhanced effectiveness of organizations, and improved quality of life at work for employees.

**Cohen and Rosenthal (1980)** describes Quality of Work Life as an intentionally designed effort to bring out increased labour management, and co-operation to jointly solve the problem of improving organizational performance and employee satisfaction.

In the opinion of **Jain (1991)**, quality of Work Life represents a blending of motivational factors of work, socio-technical system etc. which are of very real concerns for human values in today's society with an awareness that all individuals devote the greater part of their mature lives to the work, spending time, energy and physical and mental resources to this endeavor. Moreover, it recognizes that, work is the chief determinant of an individual's freedom, growth and self respect as well as his or her standard of living. Quality of Work Life denotes the experienced "goodness" of working in the organizational settings.

## INDUSTRY PROFILE

India is regarded as the original home of sugarcane being the largest producer of sugarcane. It is considerable potential for the development of the Sugar Industry to meet

domestic demand and parts of the overseas demand. The sugar industry provides direct employment to a large number of people and indirect employment to millions. The development of a number of industries like the Sugar machinery manufacturing, distilleries, confectionery, etc., are linked to the development of the sugar industry. The sugar industry is also responsible for employment of a large number of people in the transport and other service sector. About 50 millions of farmers are estimated to be engaged in sugar cane cultivation. In India totally there are 428 sugar mills particularly in Tamil Nadu 38 mills, in that 16 co-operative sugar mills and in public limited 3, in private 19 mills. Sugar industry is very important to the Indian National Economy, because of its multiple contribution in the shape of the employment provision of raw materials to other industries. In Some parts, co-operative factories have become the symbol of industrialization in the rural area and also helps in providing opportunities of employment to the village folk.

#### **ESTABLISHMENT OF THE MILL:**

The Vellore Co-operative Sugar Mills Ltd. Registered on may 1970 under Tamil Nadu Co-operative Society Act 1961 (Act 53 of 1961 having its register office at Vellore District, Tamilnadu.) This Mill was established with a crushing capacity of 1250 tons. The project cost was Rs.691.06 Lakhs. It has commenced its trial crush on 1976. Subsequently the capacity was expanded from 1250 tons to 2500 tons.

#### **LOCATION OF THE FACTORY:**

The Factory is located in the Ammundi Village, Katpadi Taluk, Vellore District in extent of 108 acres on Katpadi- Ranipet State Highways.

**SUGAR SEASON:** One Sugar season is twelve month from October to September (Accounting year). The actual Crushing depend upon the availability of the Sugar cane.

#### **QUALITY OF WORK LIFE IN VELLORE CO-OPERATIVE SUGAR MILLS LIMITED (VCSML)**

Vellore Co-operative Sugar Mills Limited is one of the largest public sector companies in the sugar field. Vellore Co-operative Sugar Mills Limited is popularly known for it. The

achievements made by VCSML are only possible because of its human resource. The management of VCSML believes that the productivity of both the employees and organizations is improved only when the employees are satisfied in every respect. Therefore VCSML provides its employees a better quality of work life .The various aspects that VCSML considers as the factors influencing Quality of work life are as follows.

### **1. ADEQUATE AND FAIR COMPENSATION**

VCSML provides adequate and fair compensation to its employees. The pay scales are revised by the government regulations. The income from fulltime work meets socially determined standards of sufficiency or the subjective standards of the recipient. And also, the employees are fairly compensated for the overtime and the extra hours worked, and the additional work done is urgency. As VCSML provides both adequate and fair compensation to its employees, it motivates them and reduces retention. The pay scales of VCSML also attract the potential people in to it. Adequate and fair compensation given by VCSML to its employees boosts their morale and in-turn increases both organization and employees productivity.

### **2. FACILITIES AT THE WORK PLACE in VCSML**

VCSML provides every facility, which is necessary for the well being of its employees. It provides the well being of its employees with lunch, tea and water facilities that are hygienic. The service of food to the employees is also very good. Employees are served with food in the spacious lunchrooms. There are three lunch rooms in VCSML, which can comfortably accommodate all of its employees. The employees are also facilitated with restrooms to reduce their fatigue and tiredness during their working hours. Washing and drying facilities are also provided according to the satisfactory rules to those working in shop floors and assembly workshops. All the offices, workshops and assembly rooms are properly ventilated and lighting facilities are provided so that employees can feel comfortable while they are working.

### **3. SAFE AND HEALTHY WORKING CONDITIONS**

The aim of VCSML is that the employees should be provided with a healthy environment conducive to both productivity and personal well being .it also provides safety equipment and

safety wear while working in hazardous jobs. They are also given training about the safety aspects of the job. It provides excellent working conditions conducive for carrying out the work effectively and efficiently. The working conditions motivate the employees to work hard with ease.

#### **4. OPPORTUNITY FOR IMPROVEMENT OF SKILLS**

Many employees in VCSML have taken advantage of the facilities provided by it to improve their skills and acquire additional qualifications. It encourages its employees by rewarding the employees who improve their skills and gain additional qualifications by promoting them and socially recognizing or by giving incentives. It also encourages and facilitates the potential employees to avail the benefit of study leave. VCSML has an internal training department known as “Corporate learning center (CLC)”, which trains the employees on various job and non job related issues. It consists of a team of specialized trainers. If needed, it also arranges seminars by inviting eminent personalities from other corporations. It even sends the employees to other countries to get acquainted with their technology.

#### **5. WELFARE FACILITIES**

VCSML has three categories of welfare facilities statutory welfare facilities, Intra moral facilities and intramural facilities. It provides the following intra mural welfare amenities to its employees under section 42 to 52 according to factories act.

##### **Washing Facilities**

- Storing & drying facilities
- Sitting facilities
- First aid appliances
- Canteens
- Shelters, Restrooms & Lunchrooms
- Baby crèche

**Other statutory welfare activities are as follows**

- Provident fund
- Gratuity
- Employee state insurance scheme

The welfare measures in VCSML are far superior to other standards laid down statutorily. It is said that human resource plays a very vital role in the existence of any organization. Therefore to maintain this resource, the company must take all necessary steps to keep them and their family members safe from unforeseen risks.

VCSML has well maintained township with modern amenities such as running the co-operative societies, schools, parks, playgrounds, nursery, auditorium, medical and preventive facilities. The quarters are allotted on security basis and also certain percentage of houses are reserved for essential services and employees VCSML ongoing to SC/ST communities. Keeping in view the welfare of the women employees, VCSML has provided the facility of baby crèche, where the women employees can keep their children of age VCSML below 6 years during their working hours. They are nursed well by the ayah. The nursing mothers can feed their babies twice a day. The environment in the crèche is very hygienic and the surroundings are cleaned every day.

**6. IMMEDIATE OPPORTUNITIES TO USE AND DEVELOP HUMAN CAPACITIES**

The employees are given freedom to work as they like in accordance with the achievement of the organizational goals. Autonomy of implementation along with planning is given to the employees so that the work is done effectively. The employees are given freedom to improve their skills while working on the job. The environment encouraging the employees to build work groups and teams to accomplish the task collectively. The flow of communication is also flexible as that are given reasonable autonomy. The employees also have freedom to express their grievance through proper channel. They have the autonomy to arrange their work place in a conducive manner so that they feel comfortable to work.

**7. FUTURE OPPORTUNITIES FOR CONTINUED GROWTH AND SECURITY**

VCSML provides an excellent career growth to its employees. The employees have the scope and opportunity for continues growth through promotions .The potential candidates are even out placed as part of their career development .By and large the promotion system is based on merit cum seniority basis.It follows a policy of permanent employment for its employees with various growth aspects. The promotion policy in VCSML is considered to be the best practice in the public sector. The employees are also given opportunity of growth on acquiring additional qualifications. It gives a chance to the employees to develop, expand and maintains one's capabilities rather than leading to obsolescence.

## **8. SOCIAL INTEGRATION AT THE WORKPLACE**

Every human being is asocial being. Every social being is in the need of the social recognitions and established a cultural environment that induces social integration in its employees. It encourages the formation of teams and formal work groups, where the employees can work collectively. Therefore, it tries to instill the feeling of oneness / unity, which is only possible through proper flow of communication, integration and co-operation. It established both formal and informal channels of communication through which the information is passed effectively to all levels in the organization. The barriers to effective communication are also are removed through empathetic approach of the management. It shows them a path to relate to one another their ideas and feelings.

## **9. CONSTITUTIONALISM IN THE WORKPLACE**

VCSML has tenant of equity i.e. the right to equitable treatment in all matters including the employee compensation scheme, appreciation, rewards and job security. They also have the right to personal privacy like personalizing their workplace and environment.

## **10. WORK AND TOTAL LIFE SPACE**

In VCSML, the relationship of work to the total life space is best expressed by the concept of balance. The balanced role of work is defined by work schedules, career demands and travel equipments that do not take up leisure and family time on a regular basis. It also tries to

reduce the stress and strain of the work-load, which affects the employee's personal life by organizing various recreational and cultural activities.

### **11. OTHER PARAMETERS OF QWL CONSIDERED BY VCSML**

One of the parameters, which are relevant to QWL in VCSML is, leave facility. The employees are provided with various kinds of leave arrangements like: earned leave, sick leave, casual leave, vacation leave etc. The employees can also en-cash the unveiled leave. The statutory standing orders followed by VCSML are flexible and influence the QWL of employee. They are easy to understand and follow. VCSML has appointed a chief welfare officer (CWO) who takes care of all the welfare activities and satisfies the employees and employers. The employees approach the grievance committee or unions/associations to solve their problems. The chief welfare officer pacifies, emphasizes and counsels the employees to keep up the morale of the employees.

### **FINDINGS SUGGESTIONS AND CONCLUSION**

#### **MAIN FINDINGS**

- ✓ It is clear that 43% respondents strongly agree with the statement that workers environment always motivate the workers to get interested in the work, 55% agree, 1% of the respondents disagree and 1% of the respondents strongly disagree.
- ✓ It is found that 45% of the respondents strongly agree with the statement that workers have freedom to give their opinions and suggestions, 53% agree, 2% of the respondents disagree and 0% of the respondents strongly disagree.
- ✓ It is found that 59% of the respondents strongly agree with the statement that wages and salaries are paid on time by the organization, 38% agree, 3% disagree and 0% strongly disagree.
- ✓ 73% of the respondents are of the opinion that the Canteen, Transport, Medical and All other welfare activities are good and excellent in the organization, 26% of respondents agree, 1% disagree and 0% strongly disagree.

- ✓ It is clear that 61% of the respondents are strongly agree with the statement that workers are treated with respect in the work place, 39% agree, 0% of the respondents disagree, and 0% strongly disagree.
- ✓ It is found that 34% of the workers strongly agree that the organization provides opportunities to develop workers to their abilities, 51% agree, 13% disagree and 2% of the workers strongly disagree.
- ✓ 36% of the workers strongly agree that the organization gives enough instructions to get the job done, 52% agree, 11% of the respondents disagree, and 1% of the respondents strongly disagree.
- ✓ It is found that 40% of the respondents strongly agree with the statement that the organization is providing high quality tools and equipments to do the job effectively, 48% agree, 10% disagree and 2% strongly disagree.
- ✓ It is found that 57% of the workers strongly agree with the statement that the safety of workers is at high priority, 35% agree, 8% of the respondents disagree and 0% of the respondents strongly disagree.
- ✓ It is found that 61% of the respondents strongly agree with the statement that the job is secured, in the Vellore Co-operative Sugar Mill Ltd., 36% agree, 3% disagree and 0% strongly disagree.
- ✓ The 58% of the workers strongly agree with the Statements that the Supervisor is friendly and helpful to workers and subordinates 38% agree, 4% of the respondents disagree, 0% strongly disagree.
- ✓ It is found that 8% of the respondents are strongly agree with the workers get adequate and fair compensation for the work done by their, 29% agree, 38% of the respondents disagree and 25% strongly disagree.
- ✓ It is clear that 34% of respondents strongly agree with the statement that the training opportunities have really helped the workers to improve the quality of work, 47% agree, 13% disagree, and 6% strongly disagree.

- ✓ It is found that 26% of the workers strongly agree with the statement that the opportunity for promotions are good, 25% agree, 37% of the respondents disagree and 12% strongly disagree.
- ✓ 65% of respondents strongly agree with the statement that workers are satisfied with the working conditions provided by the organization, 34% agree, 1% of respondents disagree and 0% strongly disagree.

## SUGGESTIONS

Based on the findings evolved out of the analysis of the data, following suggestions are made by the researcher, which will help the organization to improve the Quality of work life and thereby achieve organizational goals.

1. The chance for promotion in the organization is less. It will be better if the workers are given promotion based on performance along with the experience. This will increase the performance of the organization as a whole.
2. Since most of the employees wish to get some more time to spend with their family, it would be better if the management implement 'Flexi-time work schedule' in the organization.
3. Equal opportunities should be given to all employees, especially in the case of promotion. Otherwise it would affect the efficiency of their work as well as the organization. Performance-cum-seniority shall be made the basis for promotion.
4. Vast majority of the employees are satisfied with their jobs. The management should try to retain their satisfaction for sustaining the efficient performance. The management shall follow schemes like job rotation, job enrichment etc.
5. **Job Rotation** helps employees to avoid boredom of doing same job repeatedly. It also gives opportunity to broaden the knowledge of employees by doing different jobs. They learn about different enterprise functions by rotating into different positions.
6. **Job Enlargement** is an effort which makes a job more satisfying or rewarding by adding more significant tasks to the job list of an employee. Enriched jobs motivate employees

through achievement, growth, recognition, responsibility, and performance of the complete job as against only parts of a job

## CONCLUSION

This study aimed at finding the Quality of Work Life in Vellore Co-operative Sugar Mills limited. Researcher conducted Quality of Work Life survey among the workers of the organization. The data was collected by means of interview schedule using a closed-ended questionnaire hence it has all limitations of the interview method. Employees independently answered the questions and data such collected was tabulated, analyzed and interpreted to give certain suggestions.

Based on the findings, it can be concluded that, the Quality of Work Life in Vellore Co-operative Sugar Mills limited is good. In the survey, nine core areas, relating to the organization from the workers' point of view were assessed. These areas need to be maintained in order to make the Quality of Work Life good. The core areas include their job satisfaction, work life balance, compensation packages, safety, promotion policies, training, team work, management's concern and big picture about the organization. It is clear that productivity depends on Quality of Work Life. In order to maintain high Quality of Work Life, management should take utmost care in these core areas.

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## THE AMENITIES OF HOTEL INDUSTRIES IN VELLORE DISTRICT – A STUDY

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### ABSTRACT

In this modern world services are widely used by people in all aspects of life. They are largely used from education to entertainment, finance to fast food, travel to telephone, advertisement to amusement parks, market research to maintenance services, retailing to recreation and so on. Now-a-days services are increasingly being used by the corporate as well as the household sector. This emphasis on services and its increasing use has not happened started in the twentieth century especially after the end of the II world war. In the developed societies, service is one of the targeted growing sectors and is becoming more and more pronounced vis-à-vis agriculture. In the developing countries too, service industry is becoming one of the major employers. The economies of other countries are also dominated by services. This trend has been so strong that some people term it as ‘the second industrial revolution’. There has been an opinion that if the district needs to attract more tourists then it must offer better boarding and lodging facilities. Considering these aspects and the hotel accommodation available in Vellore district, an attempt has been made to understand the visitor’s expectations and perception about the quality of hospitality industry in this District.

*Key words: Services, Hotel Industry*

### INTRODUCTION

Services’ marketing has occupied a vital place in business studies all over the world. The concept was conceived in advanced countries in 1970s. Marketers in these countries were applying the traditional marketing techniques for marketing the services. Actually they were not

differentiating between the marketing of physical goods and of services. The paid service organizations like financial institutions were also thinking that service was just an augmentation of the physical product, or that could be considered a product itself if no physical product was involved. In reality, they were performing the marketing of services. They never considered this as a separate powerful activity which could bring more income and increase the standard of living. This sector started contributing mainly for the gross domestic product (GDP). In many advanced countries, the contribution of service sector to GDP is 75%. As early as in 1948, 54% of the GDP of United States was generated by services which have increased to 80% in the year 1999.

In 1990s and particularly at current juncture “quality” concept was introduced in services marketing. A feeling is also developing that services marketing is important not only in services sector but also in every business enterprise. Enterprise which deals with physical products and some services are an integral part of business operations. The success of marketing depends upon the quality of service rendered by each service provider. Several physical products need the help of service sector to reach the consumers. Many developed countries have realised that service sector is vital for the economic development. For example, without the development of transport system – Air, water or land , physical products would not have been moved from production points to the markets and ultimately to the target consumers. Without the financial services, many industries would not have emerged. The recession experienced recently in the economies world over is due to the failure of the financial services. Today every economy in the world continues to depend on the service sector to faster the manufacturing, farm and trade sectors. Hence, service sector is now recognized as a vital sector of the economy.

On the whole, service marketing is emerging in a big way. Service sector is also contributing largely for GDP of many countries. There are very many reasons as to why service sector is growing and has become a vital sector of the economy.

#### **DEFINITION AND CHARACTERISTICS OF SERVICES**

According to Kotler, a service is “any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product”.

According to Stanton, “Services are identifiable, intangible activities that are the main object of a transaction designed to provide want satisfaction to customers”.

According to Adsin Palmer, the services constitute “the production of an essentially intangible benefit, either in its own right or as a significant element of a tangible product, which through some form of exchange, satisfies an identified need.”

The American Marketing Association defined services as “activities, benefits, or satisfactions which are offered for sale, or provided in connection with the sale of goods.”

Robert Judd defined service as “a market transaction by an enterprise or entrepreneur where the object of the market transaction is other than the transfer of ownership of a tangible commodity”.

Thus we can finally differentiate between the definitions of goods and services on the basis of:

1. Tangible physical objects,
2. Transferability, and
3. Existence.

But here it is maintained that even if one buys goods or a product which are tangible, he also buys services. On the other hand services rendered involve purchase of goods, either directly or indirectly. For example services of car Rental Company are based upon its purchase of car. Therefore it can be said that whenever one buys any goods he buys some services along with the goods and if he buys services, he indirectly buys goods too.

### **IMPORTANCE OF SERVICES MARKETING**

The services sector if marketed in a right fashion, contributes substantially to the process of development. The speed of socio-economic transformation can be increased sizably if the innovative marketing principles are practiced. We can't deny the fact that in the years to come the services sector would get a conducive environment with profitable opportunities. The following facts about the optimal development of the services sector would pave copious avenues for the development of national economy:

- Creation and expansion of job opportunities.
- An optimal utilization of Resources.
- Paving avenues for the formation of capital.
- Increasing the standard of living.
- Environment friendly technology.

### **HOTEL SERVICES**

The emerging positive trends in the tourism industry indicate that hotel industry is like a reservoir from where the foreign exchange flows. This naturally draws our attention on hotel management. In addition, the domestic tourism also indicates a positive sign of development. Thus the emerging new developments in the socio-economic environment open new vistas for the development of hotel industry. Of late, the organizations engaged in the hotel business are required to conceptualize modern marketing principles. This makes it essential that they formulate a sound marketing mix that makes possible an optimal development of the marketing resources and makes the process of development cost effective. Like other industries, the hotel industry also needs to explore avenues for innovation, so that a fair blending of core and peripheral services is made possible.

### **NEED OR PURPOSE OF THE STUDY**

Vellore district is attracting a lot of foreign tourists as well as domestic tourists. There is also a big contingent of floating population who come to the city for work and stays for a period

ranging from three months to one year. It would be worthwhile to assess the quality of service produced by the existing hotels to the tourists, and the scope of this study is to assess and examine the perceptions of the guests of the hotels regarding the quality of the hospitality and to demonstrate ways by which these hotels can make qualitative improvements in service. The study makes an attempt to explain the reality and perception and suggest for improvement in service quality of the hotels in Vellore district.

### **STATEMENT OF THE PROBLEM**

Vellore district is one of the tourist spots in Tamilnadu and attracts foreign and domestic tourists. Numerous businessmen and officials make regular official visits to Vellore district. These activities regularly promote the floating population to Vellore district. Vellore district has been surrounded by historical monuments and places. There has been an opinion that if the district needs to attract more tourists then it must offer better boarding and lodging facilities. Considering these aspects and the hotel accommodation available in Vellore district, an attempt has been made to understand the visitor's expectations and perception about the quality of hospitality industry in this District.

The key for success of any business is customer satisfaction and hence hotel industry business also faces hectic competition. The business risks are very high, by virtue of its nature. The risks are listed below:

1. Problems in demand forecasting.
2. Price changes in inputs.
3. Change in climatic conditions.
4. Shift in customer tastes and preferences.
5. Escalation in costs.
6. Attitude of customers, personnel and the Management.

### **OBJECTIVES OF THE STUDY**

This study has been made with the following objectives:

1. To study the marketing services provided by the hotel industry in Vellore District.
2. To analyse the services mix of the hotel industry in the study area.
3. To assess the customer's satisfaction towards the hotels in Vellore district.
4. To measure the service quality of the hotel industry.
5. To suggest suitable measures for the improvement of hotel industry.

### **SCOPE OF THE STUDY**

Vellore district is attracting a lot of foreign tourists as well as domestic tourists. There is also big contingent of floating population who comes to the city for work and stay for a period ranging from three months to one year. It would be worthwhile to assess the quality of service produced by the existing hotels to the tourists, and this study is to assess and examine the perceptions of the guests of the hotels regarding the quality of the hospitality and to demonstrate ways by which these hotels can make qualitative improvements in services.

This Study has been focused towards the services provided by the hotel industry in Vellore district, marketing mix of services and customer satisfaction about hotel industries in Vellore district. The study focuses service quality aspects of selected 25 hotels in Vellore district at all levels, including small, medium and star category. The study results can be applied for devising competitive strategy in the hotel industry in Vellore District; the results may throw light on pitfalls of the players in the market and may pave way for improving the satisfaction level of the customers.

### **RESEARCH METHODOLOGY**

If any study on research is to be recognized as valid or true, it must be done in systematic and scientific manner. Hence research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it, we study the various steps that are generally adopted by researcher in studying his research problem along with the logic behind them. The methodology used for carrying out the present study is explained in the forthcoming paragraphs. It covers title of the study, significance of the study, aims and objectives of the study, research hypothesis, research design, and pilot study,

sampling design, sources of data, tools for data collection, method of data collection, statistical analysis and limitations of the study.

### **Data Collection**

In this study the Researcher has collected both primary and secondary data. Primary data were collected from customers and hotel owners through schedule and questionnaire. Secondary data were collected from the published and unpublished sources. The standard books, journals & websites were also referred.

### **Sampling Unit**

Sample unit is Vellore district.

### **Sample Size**

The primary data is collected from 150 customers including foreign tourists, those who regularly stay in the hotel. The total boarding and lodging hotels in Vellore district is 50. Out of this 50% of the hotels are taken into study.

### **Sampling Design**

In this study convenient sampling method is used. Population characteristics or qualities may not be known, but sample has to be selected. In such instances, judgement sampling method is used.

### **Statistical Tools Used**

Statistical tools like Correlation, Percentage analysis, ANOVA, Chi-square analysis using SPSS package, and SERVQUAL model are to be used for the analysis. Tables, graphs and diagrams will also be used to present the processed data.

### **Hypotheses (Null)**

1. There is no significant relationship between age of the Respondent and purpose of visit.

2. There is no significant relationship between length of stay and purpose of visit.
3. There is no significant relationship between marital status of the Respondent and purpose of visit.
4. There is no significant relationship between Educational qualification and purpose of visit.
5. There is no significant relationship between length of stay and cost of accommodation.
6. There is no significant relationship between age and media attraction.

### **LIMITATIONS OF THE STUDY**

The following are the limitations of the study:

1. The study is confined only to hotels in Vellore District.
2. The study covers current period for collection of primary data.
3. In this study the researcher considers Vellore District.

### **2.1 REVIEW OF LITERATURE**

**CarevDanijel (2008)** in his M.S thesis titled “Guest satisfaction and loyalty study for hotel industry” has analysed factors such as ambience service, as well as the guest’s overall satisfaction with the hotel along with their loyalty behaviour. This study analysed the relationship between customer satisfaction and customer loyalty. He has stressed the factors promoting guest loyalty with the purpose of proposing a method to assist hotels in identifying attributes increasing customer loyalty.

**Riscinto-Kozub, Kristen A (2008)** in his doctoral thesis titled “The effects of service recovery satisfaction on customer loyalty and future behavioural intentions: an exploratory study in the luxury hotel industry” has highlighted the common perception by practitioners in the hotel industry today. He has strongly recommended the unique relationship between pre-failure loyalty and emotion with on-going satisfaction, post-recovery loyalty and the customer’s Future Behavioural Intentions (FBI) towards the organization.

**YiWang, Marcelo Royo Vela, Katherine Tyler, (2008)** in their article titled “Cultural perspectives: Chinese perceptions of UK hotel service quality” said about the fresh insight on the interrelationships of cultural influences and customers’ evaluations of service quality.

**Jessica Prois (2009)** in her article titled “Study measures value of guest experience” said that travellers still expect a top-notch experience, even though hotels are cutting back. But a quality hotel experience doesn’t necessarily mean providing more, but rather something different. Overall, the study’s findings are an efficient management tool for hoteliers.

**T. Vannirajan, (2009)** in his article titled “A tool for measuring service quality in Restaurants” revealed that the restaurant owners were fully committed to gain a competitive edge, and to do so was imperative for them to continually strive to increase the level of overall service quality of their restaurants by laying emphasis on the five important DINESERV variables.

## **FINDINGS, SUGGESTIONS AND CONCLUSION**

This final chapter deals with the findings, suggestions and conclusion. In every project the researcher gives findings, suggestions and conclusion. This is the back bone of every project. This finding provides what the researcher had found out as the problems and analysis in the study area, the researcher’s suggestions for the findings, and the conclusion of the thesis.

### **FINDINGS**

The research study resulted in the following major findings. These findings are presented in the subsequent sections.

- It is found that 76% of the hotel owners who started the business belong to the age group of above 41 years. Out of 25 hotel owners 24 are male and only one is female. 28% of the hotel owners’ income ranges from 4-5 lakhs per month. 94% of the hotel owners procure milk from private source for their hotels. They procure grocery items from wholesalers

and they purchase daily. 90% of the hotel owners had insured their hotels in government insurance company.

- In this study 72% of the hotel owners provided both catering and restaurant services. 80% of the hotel owners do not provide cultural shows, beauty parlours and gym facilities. 96% of the hotel owners provide first aid facility and television facility, only star hotels provide ambulance facility to their customers. 80% of the hotel owners provide lift facility, ticket booking facility to their customers and accept credit card payments. 80% of the hotel owners provide special discount to their regular customers. 100% of the hotel owners say that word-of-mouth promotion gives more impact their business. Generally the hotel owners allow the employees to receive the tips.
- It is found that 51% of the respondents who preferred to stay in hotels belong to the age group of 21-30 years. They stay in the hotels for employment and professional purposes. 77% of the respondents are male and 93% of the respondents are Indian. 75% of the respondents stay in the hotel for the purpose of occupation, conference, marriage and pilgrimage. Friends and relatives had also been the source of influence to select these hotels. The customers were very much satisfied with the tariff charged, quality of the service provided, check in procedure, clean environment, friendly approach of the employees, special discount provided, and varieties of food offered and pricing of food items.
- It is reveal that 43% of the customers were satisfied with the prompt services provided to them at these hotels. The customers were satisfied with the maintenance of accurate records. Only 30% of the customers felt that the prices of goods at the hotel shops were reasonable. Amicable nature of the staff was satisfactory to the customers.
- It is show that customers were satisfied with the staff at the hotel who informed them promptly about the performance of the services. Willingness of the staff to help customers and prompt reply to the customer's questions were satisfactory to them.

Customers were moderately satisfied with the willingness of the hotel staff to respond to customer's requests.

- The study reveals that the customers were satisfied with the trustworthiness and politeness of the staff. The hotels provide the employees with the required support needed to do their job effectively. Customers were satisfied with the courteousness and politeness of the staff.
- As per the study, 25% of the customers were satisfied with the individual attention providing the required services. The hotel reception was open throughout, for the convenience of the guests. Study reveals that only 20% of the satisfied respondents responded that the hotel had the best interest of their customer at heart. Customers were moderately satisfied with the quality of meals provided and with the laundry services provided by these hotels.

### **SUGGESTIONS**

The following are the suggestions provided by the researcher to the hotel owners, customers, hotel employees, Government and others. If they follow the researcher's suggestion definitely this will be helpful to the society as well as the hotel related people and also it will increase the national income of our country.

#### **Suggestions for the Hotel Owners:**

1. Hotels do initiate effective steps to constantly improve the quality of services provided to their customers.
2. It is seen that the customers are waiting for table. So, increasing the number of seating facilities would solve the problem and in addition provide employment to many by increasing the attendants.
3. Medical facilities and equipments may be kept ready at all times at the hotel premises.
4. The time taken to deliver the service to the customers shall be minimized to 10 minutes.

5. A special discount in tariff may be considered for regular customers.
6. Management could see that tariff charged by them is affordable to customers of all classes, not compromising on their quality of services and maintaining good customer relations.
7. The hotel authorities may go out of their way in serving their customers with the best food, accommodation services and bringing about flexibility in their services to make their stay a pleasant experience.
8. The management needs to take efforts to see that basic facilities like sanitation, flexibility in check in and out timings, money exchange, cab facilities, ticket booking facilities are adequate to attract and retain customers.
9. The staffs employed have to be well trained. They need to respond to their guests in an amicable way and be prompt in their services.
10. Appearance of the hotel, neatness maintained in the premises, and the appearance of the staff count to a great extent to sustain the competing market share.
11. Hotel staff may be trained and motivated at regular intervals in providing quality services.
12. Regular feedback from their customers helps to increase their quality of services and serve their guests better.
13. The hotel owners should recruit right person for the right job, for this will help them to provide prompt services to their customers.
14. The hotel owners provide quality services at reasonable rate. It is one of the ways to attract the customers among the competitors.
15. Necessary steps should be taken by the hotel owners to regularly check the proper functioning of facilities provided in the rooms.

**Suggestions for the Customers:**

1. If the customers select same hotels regularly, they may avail discount and other

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facilities. Selection of same hotel may help the customers to get better hospitality services.

2. The customers should behave genuinely in the hotels and they should treat the employees gently.

#### **Other Suggestions:**

1. The family members and society should motivate women to start hotel business.
2. The Government should take effective steps to keep the environment clean. It will attract more number of tourists.
3. The Government can initiate more training programmes on entrepreneurship development to encourage young entrepreneurs especially in hotel sectors. As it is a booming industry, it will provide more employment opportunities.

#### **CONCLUSION**

“Service to man is service to God”. As the proverb says the hotel owners and the managers provide good service to their customers, which in turn will increase the profitability of the hotels. In the hotel industry, service quality, as an extremely subjective category, is crucial to the satisfaction of the customers. If they increase the quality of service it will attract more customers at the same time they can expand the business, and it will lead to more employment opportunities.

To sum-up, this thesis attempts to clarify the SERVQUAL model and not only provides the managers with a clear picture of the quality of the services provided, but also helps the hotel owners to discover the needs, tastes, preferences and expectations of the guests. It also lists out various facilities provided by the hotels to their customers and also various services mixes provided. We can say that it helps managers in setting the standards for the provision of services in the hospitality industry.

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**CONSUMERS' ATTITUDE TOWARDS PACKAGED DRINKING WATER – A STUDY  
WITH REFERENCE TO VELLORE CITY**

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**ABSTRACT**

High awareness for safety and hygiene increases the sales of packaged drinking water in India. With an increase in the number of water borne diseases, consumers are concerned about safety and do not mind spending on packaged drinking water. In fact packaged drinking water has become a necessity while travelling. The packaged water industry has literally created its own water culture. Just like any other consumer product, packaged drinking water requires thorough research regarding consumers' buying attitude to guide present and future marketing activities. This is especially so, given the circumstances that the packaged drinking water market is considered as one of the fastest growing markets in the beverage category. In brief, both the global and local packaged drinking water market is becoming an essential part of the beverage market. This remarkable increase raises several questions and is therefore one of the drivers of this research. The present study aims to analyze the socioeconomic status, usage profile, satisfaction on packaged drinking water, attitude of buying the packaged drinking water and the impact of satisfaction with the packaged drinking water on the attitude of buying the packaged drinking water. The results of the study would serve as a powerhouse for the development of marketing for the industries, companies and the wholesalers of packaged drinking water.

*Key Words: Consumers' Attitude, Packaged Drinking Water*

## INTRODUCTION

Consumers' attitudes are a composite of consumer beliefs, feelings and behavioral intentions toward some object within the context of marketing, usually a brand or retail store. These components are viewed together since they are highly interdependent and together represent forces that influence how the consumer will react to the object. A consumer may hold both positive beliefs toward the object as well as negative beliefs. In addition, some beliefs may be neutral, and some may differ in valance depending on the person or the situation. It is clear that the beliefs that consumers hold need not be accurate, and some beliefs may upon closer examination be contradictory. Since a consumer holds many beliefs, it may often be difficult to get down to a bottom line of the overall belief about whether Packaged Drinking Water is good or bad.

Water is a prime natural resource, a precious national asset, a basic human need and the elixir of human, faunal and floral life. Experts have ranked water as second only to oxygen as essential. For life apart from aiding in digestion and absorption of food, water regulates body temperature and blood circulation, carries nutrient and oxygen to cells and removes toxins and other wastes. Water also cushions joints and protects tissues and organs including spinal cord from shock to damage. In short, one can live without food for many days but one can only survive for a few days without water. The availability of water however continues to remain the same. In fact, due to failure of monsoon and continued consumption for domestic and industrial purposes, the ground water table had been depleted in several parts of the country. This natural resource is becoming scarce in many places and its availability is a major social and economic concern.

Competition is rife, in today's complex world, the aspect of considering the food as the prime concept has been eliminated in the fastest world, every person who lives in the fast growing complex world would like to consume food not by large but by mean. Hence the aspect of considering the leverage of mixing food items in to digestive component is determined by intake of drinking water. No matter where the water is procured viz., ground water, rain water,

distilled water, purified water and by any other mean. It is recapitalized that the vitality of water is the need of any aspect of digestive function. Hence the intake of water has accumulated his necessity in the consumption of normal man. The failure of monsoon, non-availability of pure water has necessitated inventing packaged drinking water. Now the order of the day is to consume packaged drinking water which includes the aspects, quality, worth, affordable price and easy carrying. Today business world had accorded in large consumption of packaged drinking water as it eliminates diseases like dengue, cold, fever, metropolis attacks, dysentery and other viral infections. So, the manufacturers step in to the process of inventing packaged drinking water which is of sterilized, ultra violet treated, concrete absorption and cleaning of virus in nature.

India's huge and growing population is putting a severe strain on all the country's natural resources. Most water sources are contaminated by sewage and agricultural runoff. India has made progress in the supply of safe water to its people but still gross disparity exists in coverage across the country. Water is a priceless gift of nature. Without water, there is no life on earth. Water is the commonest liquid. But it is also the most wonderful and most useful liquid. It is the basis of all life. No one can deny that water is a friend to human race but it also acts as a foe by way of harboring disease producing micro-organisms and containing some substances that may lead to ill health. The introduction of packaged drinking water for human consumption at recent times is a boon to mankind and more conveniences are realized. Whenever a common man purchases packaged water, he thinks that the quality is assured and it is safe. Such assurance should be given to consumer by each and every manufacturer of packaged mineral water and packaged drinking water. Keeping in view the utmost importance of quality, Bureau of Indian standards has, promulgated standards for packaged drinking water intended for human consumption!

Water is a chemical compound consisting of two hydrogen atoms and one oxygen. The name of water typically refers to the liquid state of the compound. The containers in which water is packed shall be hygienic, completely clean and shall not cause any undesirable change in taste, odour or colour or quality of the water. It shall be packed in hermetically sealed containers of

food grade materials to prevent contamination of bottled water. Filling and sealing operations of containers shall be done in an aseptic atmosphere so as to prevent any contamination.

### **TYPES OF BOTTLED WATER**

The origin and processing of different types of bottled water actually make them quite different in content and taste. In fact, the U.S. Food and Drug Administration (FDA) - the federal agency that regulates all types of bottled water-has established guidelines called standards of identity that classify bottled water into several different water types.

#### **Spring Water**

The ever-popular "spring water" is defined as spring water derived from an underground formation from which water flows naturally to the surface of the earth. To qualify as spring water, it must be collected only at the spring or through a borehole tapping the underground formation feeding the spring. If the collection process uses some type of an external force, the water must be from the same stratum as the spring and must retain the quality and all of the same physical properties of water that flows naturally from a spring to the surface.

#### **Drinking Water**

Drinking water is sold for human consumption in sanitary containers and contains no added sweeteners or chemical additives (other than flavours, extracts or essences). It must be calorie-free and sugar-free. Flavours, extracts or essences may be added to drinking water comprising less than one-percent-by-weight of the final product or the product will be considered a soft drink. Drinking water may be sodium free or contain very low amounts of sodium.

#### **Purified Water**

This is a type of purified water that has been treated with processes such as distillation, deionization or reverse osmosis. Basically, this just means that the bacteria and dissolved solids have been removed from the water by some process, making it "purified." This type of bottled water is usually labelled as purified drinking water but can also be labelled for the specific

process used to produce it, for example, reverse osmosis drinking water or distilled drinking water. Many bottled water brands are actually purified drinking water.

### **Mineral Water**

Mineral water is the water that contains minerals. The minerals can be added artificially or it can naturally be in the water. It is believed that water is taken from a starting place (source) like lake, rivers, or wells, which are the only places where the rich minerals are available. Even water from other places is treated with minerals by artificially adding the nutrients in it. Mineral water is a good source of nutrients and it provides extra benefits during consumption. It does not give off any problems. It becomes expensive as the water undergoes many processes before it is bottled.

### **Sparkling Bottled Water**

This type of water contains the same amount of carbon dioxide that it had when it emerged from its source. Sparkling bottled waters may be labeled as sparkling drinking water, sparkling mineral water, sparkling spring water, *etc.*

### **Artesian Water/Artesian Well Water**

Artesian water comes from a well that taps a confined aquifer-a water-bearing underground layer of rock or sand-in which the water level is above the top of the aquifer.

### **Well Water**

This one is pretty easy. Well water is exactly what it sounds like- water from a hole made in the ground that taps the water source.

### **Municipal / Tap Water**

It's the type of water piped right into homes. While tap water is not regulated by the FDA, it must meet the strict standards of the Environmental Protection Agency (EPA). Municipal tap water is generally of excellent quality, however, many people prefer the taste and enjoy the

convenience of bottled water, which, in most cases, undergoes additional processing and often retains the pleasant characteristics of its natural source

### **Ground Water**

Waters such as spring water, artesian water and well water originating from subsurface aquifers is called Ground water. Ground waters may be classified broadly as protected or unprotected water. Protected ground waters are not directly influenced by surface water or the surface environment.

### **Surface Water**

Water open to the atmosphere such as streams, rivers, lakes, ponds and reservoirs.

**Natural Water:** "Natural Water" means bottled spring, mineral, artesian or well water which is derived from an underground formation and is not derived from a municipal system or public water supply.

### **PACKAGED DRINKING WATER**

Packaging drinking water (PDW) means water derived from surface water or underground water or sea water which is subjected to here in under specified treatments, namely decantation, filtration, combination of filtration, aerations, filtration with membrane filter depth filter, cartridge filter, activated carbon filtration, demineralization, remineralization, reverse osmosis and packed after disinfecting the water to a level that shall not lead to any harmful contamination in the drinking water by means of chemical agent or physical methods to reduce the number of micro-organisms to a level beyond scientifically accepted level for food safety or its suitability. Sea water before being subjected to the above treatments, shall be subjected to desalination and related processes. In case of remineralization is part of the treatment process; the ingredients used shall be food grade quality and conform to the requirements of the Prevention of Food Adulteration act, 1954 and rules.

### **STATEMENT OF THE PROBLEM**

It is worth quoting here, The Rhyme of The Ancient Mariner, the old man says, “Water, water everywhere, but not a drop to drink” is perhaps a fitting description of the attitude of many consumers living in urban areas today who are increasingly looking towards bottled water as a means of meeting some or all of their daily requirements. As fresh water supplies are further stretched to meet the demands of many industries, agriculture and an ever-expanding population, the shortage of safe and accessible drinking-water will become a major challenge in many parts of the world. While bottled water is widely available in both developed and developing countries, it may represent a significant cost to the consumer. Consumers may have various reasons for purchasing packaged drinking-water, such as taste, convenience or fashion, but for many consumers, safety and potential health benefits are important considerations.

Clean drinking water is a basic need for people worldwide. Clean water availability is a major issue in developing countries. In the Asia and Pacific region, 700 million people are living without proper water supply system and this problem gets grave in rural areas. The drinking water source in rural areas of developing world is usually ground water and people use hand pump or turbine to draw ground water. However there can be more problems related to poor water quality. Aesthetic problem includes unpleasant taste or odour, precipitation of dissolved minerals and calcification of taps and kitchen utensils. Perception of water quality plays an important role in determining the preventive measures against different water borne diseases. The perception risk and satisfaction of quality of drinking water are closely related. The perception of risk regarding drinking water is defined as subjective judgment of individual aesthetically and non-aesthetically.

Research and studies regarding consumers’ attitude of buying are usually a common approach in post-war marketing contexts in order to acquire an insight and knowledge to guide marketing activities regarding the buying attitude of individuals. It is complicated, but understanding buyer attitude is central to marketing management. Just as marketing ends with consumption, marketing management must begin with understanding the consumers’.

This raised several questions which mainly focus on satisfaction on various factors of packaged drinking water and impact of satisfaction on attitude of buying the packaged drinking water. Consequent to this, “Consumers’ Attitude towards Packaged Drinking Water in Vellore City” is taken up by the researcher. The present study aims to analyze the socioeconomic status, usage profile, satisfaction on packaged drinking water, attitude of buying the packaged drinking water and the impact of satisfaction with the packaged drinking water on the attitude of buying the packaged drinking water. The results of the study would serve as a powerhouse for the development of marketing for the industries, companies and the wholesalers of packaged drinking water.

### **OBJECTIVES OF THE STUDY**

The primary objective of the study was to evaluate the consumers’ attitude towards packaged drinking water in Vellore City. The following secondary objectives were also formulated to contribute to meet the main objective:

1. To find out the socioeconomic status and usage profile of the respondents
2. To analyze the satisfaction of the respondents on the packaged drinking water
3. To examine the attitude of buying the packaged drinking water of the respondents

### **SCOPE OF THE STUDY**

The present study attempts to examine the socioeconomic status and usage profile of packaged drinking water of the respondents to understand the life span of the population in the study area. It examines the satisfaction of the respondents towards packaged drinking water in the study area based on their selected socioeconomic status. Further, it examines the attitude of buying the packaged drinking water among the respondents based on their selected socioeconomic status and also it analysis the association between their attitude of buying the packaged drinking water and their selected socioeconomic status. It also examines how far the satisfaction of the respondents towards packaged drinking water has impacted on their attitude of

buying it. The present study is from the stand point of the consumer attitude towards packaged drinking water among the people in the study area.

### **HYPOTHESES**

**H<sub>0</sub>** : There is no significant difference between males and females in the Satisfaction with Quality, Satisfaction with Brand, Satisfaction with Price and Satisfaction with Availability towards packaged drinking water.

**H<sub>0</sub>** : There is no significant difference between the age group in the Satisfaction with Quality, Satisfaction with Brand, Satisfaction with Price and Satisfaction with Availability towards packaged drinking water.

**H<sub>0</sub>** : There is no significant difference between the levels of education in the Satisfaction with Quality, Satisfaction with Brand, Satisfaction with Price and Satisfaction with Availability towards packaged drinking water.

**H<sub>0</sub>** : There is no significant difference between the occupations in the Satisfaction with Quality, Satisfaction with Brand, Satisfaction with Price and Satisfaction with Availability towards packaged drinking water.

### **RESEARCH METHODOLOGY**

The research methodology has to be robust in order to minimize errors in data collection and analysis. It explains the research objectives and a suitable methodology to achieve those objectives. Owing to this, various methods, procedures, and techniques were chosen for data collection. The methodology adopted in the present study includes the research design, the population and sampling, the data collection, data analysis strategy and ethical considerations.

#### **Research Design**

A research design is a plan which outlines how information is to be gathered for an assessment. It includes identifying the data gathering method (s), the instruments to be used/

created, how the instruments should be administered, and how the information should be organized and analysed.

The study uses a mixed approach of two research strategies; exploratory and descriptive research. Each of these strategies plays a distinct but complementary role in order to get an answer to the research problems. Exploratory research is conducted into an issue or problem where there are few or no earlier studies to refer to. The focus is on gaining insights and familiarity for later investigation. Descriptive research describes phenomena as they exist. As regards data quantitative and qualitative statistics are applied. It is used to identify and obtain information on a particular problem or issue.

Firstly, exploratory research was carried out to gain insights and background information about the phenomenon of packaged drinking water, both globally and locally. By doing this, little academic research and literature was discovered. This helped to identify various variables of consumers' satisfaction and attitude of buying towards packaged drinking water.

Thereafter, descriptive research was used to test and to answer the research hypotheses. This was carried out by a survey design and therefore consists of designing and administering the questionnaire, constructing the sampling strategy and analysing the results.

The survey design is being considered as the most appropriate technique for descriptive research since the aim is to obtain primary data. Questionnaires (primary data) enable the researcher to identify and describe the opinion of the respondents more easily. Moreover, it is simple to administrate, provide relatively reliable data and is time limited. Because of the fact that every respondent was asked to answer the same set of structured and predetermined questions, coding, data treatment and interpretation was relatively easy.

### **Population and Sampling**

Another crucial step in conducting the survey is to determine which subject shall be surveyed to obtain the appropriate information for the research objectives. A sample comprises the individuals selected from a larger group referred to as a population. The researcher was in

search of people who were using the packaged drinking water in Vellore City. The study population consisted of all people who were using packaged drinking water in Vellore City. The most appropriate sampling method for this study is convenience sampling, a form of non-probability sampling. A convenient sample consists of subjects included in the study because they happen to be in the right place at the right time. A convenient sample of **150** subjects was selected from the population in the study area. Available subjects were entered into the study until a sample size of **150** was reached.

### **Data Collection**

The data collection instrument used in this study was a well-Structured questionnaire with sixty four questions. A questionnaire is a printed self-report form designed to elicit information that can be obtained through the written responses of the subjects. The questionnaires consisted of closed-ended questions because they are easier to administer and to analyze. The questionnaires were drafted in English. The questionnaire so drafted was circulated among few research scholars for a critical review with regard to wording, format and sequences. It was suitably drafted in the light of their comments.

### **Data Collection Procedure**

Questionnaires were personally distributed by the researcher with the help of his students who were studying master degree in commerce to the respondents. The students were trained before they were involved in the data collection. The researcher and the team helped the informants and filled in the questionnaires for those who couldn't read and write English. The completed schedules were checked and the omissions and commissions were rectified on the spot. All the data were computerized; consistency checks were made to ensure that data has been correctly entered, and that the entries were logically valid. Thereafter, the data were used for the final analysis. Secondary data were collected from books, journals, newspapers, periodicals, reports, websites, and Ph.D. theses.

### **Data Analysis Strategy**

After the data were collected they were organized and analysed. The data were prepared by cleaning, coding and entering them on the computer at the end of each day. For analysis of closed-ended questions, a computer programme called Statistical Package for Social Sciences (SPSS 21).

### **SIGNIFICANCE OF THE STUDY**

The research on consumers' attitude towards packaged drinking water is providing new insights and wisdom to the consumers as well as to the companies and wholesalers of packaged drinking water. The ultimate goal of the research is to help to the companies and wholesalers to improve their business of packaged drinking water by providing the socio economic condition, satisfaction with packaged drinking water and attitude of buying of consumers. The findings of this study will be of significance in the following ways.

1. The findings of the study may add to the existing fund of knowledge about the consumers with regard to the socioeconomic conditions, satisfaction with packaged drinking water and attitudes of buying towards packaged drinking water.
2. It may provide guidelines which will help the companies and wholesalers of packaged drinking water for preparing the marketing strategies and advertisement technique to develop the marketing of their packaged drinking water among the consumers.
3. It may help the companies and wholesalers of packaged drinking water to identify the cluster area to increase their marketing.
4. It may help the companies and wholesalers of packaged drinking water to remove the stumbling block for improving their marketing.
5. It may provide enough knowledge to the companies and wholesalers of packaged drinking water for developing the quality, brand, price and availability, which can be used to enhance their marketing.
6. It may act as a self-appraisal instrument to the companies and wholesalers of packaged drinking water to know themselves of what they are and where they are.
7. It may produce the global exposure about the packaged drinking water.

8. It may sow seeds to the researcher who has an interest in the packaged drinking water and to the research unit of the companies of packaged drinking water for further research.

### LIMITATIONS OF THE STUDY

The study takes into account only the consumers' attitude towards packaged drinking water in Vellore City. Therefore, the present study has certain limitations. They are,

1. The study was conducted only in Vellore City. Hence, the findings and conclusions of the study are applicable to this district only, and it may not hold good for other areas.
2. The result of the primary data duly depended upon the trustworthiness of the respondents.
3. The study was mainly based on convenience sampling method instead of census method. Hence, the findings of the study cannot be generalized.
4. Regarding the attitude of consumers, the attitude of buying the packaged drinking water was only measured in the study.
5. The primary data were collected through questionnaire method which is subjected to recall bias. However, sufficient care was taken at every stage to reduce the error through cross checks.

### REVIEW OF LITERATURE

**Foote, Marina Leigh** (2011) in their study on, "Examining Reasons for Bottled Water Consumption: A Case Study in Pensacola, Florida", explain that over consumption in developed economies undoubtedly puts a large strain on the environment, and many would argue that the damage is irreversible. Current uses and rates of consumption of freshwater resources are also deemed to be unsustainable. A large contributor to the high demand for water is the shift in consumer preferences from tap to bottled water. The purpose of this thesis was to determine how consumers understand the differences between bottled and tap water, and how such understandings were linked to individual socioeconomic characteristics, properties of bottled water, knowledge of its environmental costs and advertising and marketing. This study shows that making people aware of the environmental and economic costs of bottled water is not

sufficient to regaining tap water trustworthiness. Instead, the habits of consumerism which make it convenient to purchase bottled water seem to be implicated in the popularity of bottled water.

**GustafOlsson (2011)**said that the water has always been mankind's most precious resource - there are no substitutes. The struggle to control water resources has shaped human political and economic history. Population growth and economic development are driving a steadily increasing demand for new clean water supplies and it is well documented that lack of access to clean water has major health implications. Many see the water security as the key environmental issue of the 21<sup>st</sup> century. The attitude towards water consumption may be the crucial ingredient. Furthermore, new approaches to financing, managing and maintaining systems must be developed.

**Morton, L., and Mahler, R., (2011)** have shown that gender and education affect environmental risk perceptions thus shaping choices regarding water consumption. This study also found that environmental perceptions were not reflected in decisions to consume or refrain from bottled water. The extent to which these findings are place-specific or can be generalized to the wider U.S. population can thus be empirically examined through this thesis. Drawing on these understandings, this thesis seeks to investigate how bottled water consumption is related to attitudes towards the environment and knowledge of environmental impacts.

**Ayokunle, C. Dada, (2011)** have shown that the standard industrialized world model for delivery of safe drinking water technology may not be affordable in much of the developing world, packaged water is suggested as a low cost, readily available alternative water provision that could help bridge the gap. Despite the established roles that this drinking water source plays in developing nations, its importance is however significantly underestimated and the source considered unimproved going by 'international standards'. Identifying packaged water case studies of some developing nations, the implication of a tenacious focus on imported policies, standards and regulatory approaches on drinking water access for residents of the developing world is also discussed.

**Joanna Galvez, (2011)** explained that each year there are millions of cases of diarrhea worldwide because of lack of access to safe water. This study explores the differences between LWW consumers and non-consumers in the Yucatan Peninsula. 300 household surveys were conducted in two urban and three rural communities throughout the Yucatan Peninsula. Further study is needed with a larger, randomized sample. Qualitative studies can explore more in depth the reasons Living Waters for the World consumers prefer to drink their water. The findings from this research can be used to scale up similar interventions, and set up small water enterprises that fit with the community consumption practices. New Living Waters for the World sites, particularly those outside the Yucatan Peninsula should conduct baseline research to determine community attitudes and practices before installing new systems.

**Wright, (2012)** reveals that in low and middle income countries, public perceptions of drinking water safety are relevant to promotion of household water treatment and to household choices over drinking water sources. However, most studies of this topic have been cross-sectional and not considered temporal variation in drinking water safety perceptions. The objective of this study is to explore trends in perceived drinking water safety in South Africa and its association with disease outbreaks, water supply and household characteristics. The results suggest that perceived drinking water safety has remained relatively stable over time in South Africa, once the expansion of improved supplies is controlled for. The stability over time in public perception of drinking water safety is particularly surprising, given the large cholera outbreak that took place at the start of this period.

### **SUMMARY OF FINDINGS**

The study reveals that

- Out of 150 people who responded, the majority of the people were female (65.3%).
- The largest percentage of people who responded (64.3%) fell between the ages of 25 and below.
- More than half of the people who responded (64.2%) were unmarried.

- A majority, (53 %) of total respondents, reported that they were living in a nuclear family.
- A large number of people who responded (53.2%) have a medium size family.
- 73.8% of people who responded were dependents in their family.
- About, 48% of people who responded have studied up to the undergraduate level of education.
- Among the total respondents, 26.7% were Professionals.
- Nearly half of the people who responded (50.8%) have earned their income on monthly basis.
- Of the total people who responded, 37.7% earned a monthly income between 10001 and `15000.
- Of the total of 150 people who responded 29.8% of the respondents used the packaged drinking water frequently.
- A considerable number of people who responded (31.7%) have got information from the source of friends and relatives on the packaged drinking water which they use. A very less number of people who responded (7%) have got information from the source of salesman.
- Around 1/4<sup>th</sup> of the people (24.3%) who responded used the packaged drinking water during the travel.
- The largest percentage of people who responded (47.3%) have preferred the brand of Aquafina as their packaged drinking water.
- Of the total of 150 people who responded, 24.5% have used the specific brand of packaged drinking water for the reason of easy availability.
- Again out of the 150 people who responded 25.7% have chosen to buy the 500 ml pet bottle of packaged drinking water for their use.

- Among of the people who responded 42.5% have purchased the packaged drinking water below 10 times in a month.

### **SUGGESTIONS**

In the light of the above findings, the following suggestions are offered to develop the business of packaged drinking water. The suggestions based on the study would be pertinent not only for the district but also for the State and the Nation as a whole.

1. The companies and wholesalers have to understand the gender differences while marketing the packaged drinking water. They should identify and remove the negative factors in the minds of the male consumers regarding the packaged drinking water and try to convince and change their opinion on packaged drinking water highlighting the features, advantages and conveniences of the packaged drinking water.
2. They should focus the people who are above the age of 25 with various marketing strategies and advertisement technique to develop the marketing of the packaged drinking water among them.
3. They may prepare the awareness campaign program based on the character of the people who have the education of elementary, high school, higher secondary, postgraduate, professional degree and illiterate and perform it among them.
4. The companies should prepare the packaged drinking water in various quantities and size based on the requirement for government offices, factories, cultivation places and other working places. The salesman or representative of the companies should contact the people directly in their offices or places concern to promote the marketing of their packaged drinking water.
5. The companies should manufacture the packaged drinking water at reasonable prices to suit the income level of the people, especially for the people who have the monthly income of `10000 and below, `10001 – 15000 and above 20000.

6. They should prevent the needless marketing efforts by focusing on the right target groups.
7. The study recommends that the companies and wholesaler of packaged drinking water should try to successfully convince consumers to use the packaged drinking water on a regular basis and make the consumers feel comfortable with bottled water which makes them healthier, smarter, and happier.
8. It is suggested that the companies of packaged drinking water should use some of the following simple customer education tactics among the people based on gender and level of education.
  - ✓ Organize a public relations team and develop a response plan to deal with negative notion on Packaged Drinking Water.
  - ✓ Educate the public about source water protection and drinking water treatment
  - ✓ Treatment plant tours and workshops offered to individuals and community groups
  - ✓ Advertise or publish the source water protection and drinking water treatment in the local Dailies on television, billboards and the radio to increase Consumers' awareness
  - ✓ Include a Frequently Asked Questions (FAQ) section to address common Consumers' complaints
  - ✓ Develop an advertising campaign among the targeted group of people
  - ✓ Devise a packaged drinking water program for sale at local stores, or for distribution at charity events and related local activities

## CONCLUSIONS

Water is a priceless gift of nature. Without water, there is no life on earth. None can deny that water is a friend to the human race, but it also acts as a foe by way of harboring disease producing micro-organisms and containing some substances that may lead to ill health. The introduction of packaged drinking water for human consumption in recent times is a boon to mankind and more conveniences are realized. Whenever a common man purchases packaged

water, he thinks that the quality is assured and it is a safe water. Such assurance is given to consumer by each and every manufacturer of packaged drinking water. The consumption of bottled water has been increasing consistently over the last decade, even in countries where tap water quality is considered excellent. Many people drink bottled water for various reasons, including convenient transportation, guaranteed purity, preferred taste, and, often subconsciously, as a status symbol. Packaged drinking water is getting familiar as the aspect of convenience and quality has been guaranteed.

The customers are having numerous brands in selecting the packaged drinking water, and the variety of packaged drinking water is also like mushroom with various styles viz., bottled, bubble top, can, and so on. But when the aspect of brand influences the purchase there comes the threat on domestic brand also, hence a research has been carried over to analyze the satisfaction, attitude of buying and impact of satisfaction on the attitude of buying of Consumers' consuming packaged drinking water.

The present study is an attempt to analyze the consumers' attitude towards packaged drinking water in Vellore City. The researcher has identified the socioeconomic status and usage profile of the people who responded. And further, he analysed the satisfaction, attitude of buying and impact of satisfaction on the attitude of buying of Consumers' consuming packaged drinking water. The findings will help the producers and marketers to take remedial measures to promote their business of packaged drinking water.

The issues identified in the present study would provide a sound theoretical and analytical background for future researches in the area of packaged drinking water. With regard to this, it is hoped that the present study will provide a springboard that will provide an impetus for empirical research in this area. The researcher hopes that the study on 'Consumers Attitude towards Packaged Drinking Water in Vellore City' will generate interest and insights among the producers and marketers and the suggested recommendations will be implemented soon.

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## **Joint Liability Groups (JLGs): An Empirical Evaluation**

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### **Abstract**

Economic Development of our nation is possible only through developing the rural people engaged in agriculture and allied activities. They are lacking finance and technical skills which block their further growth. In order to bring them into main stream various schemes were framed by state and central governments. Among them Self Help Groups succeeded in reducing poverty to a great extent by engaging poor people at work by providing financial assistance. But the lower repayment rates of Self Help Groups forced the government and concerned authorities to develop new product which is capable of solving problems encountered while dealing with Self Help Groups. As a result Joint Liability Groups mechanism was introduced by NABARD. Joint Liability Group is based on the principle of mutual help. The members of joint liability groups share the burden of loan repayment of every other member in case of default by a member which reduces the default rate and hence borrowing became easier for the rural masses. Also bankers were relieved of transaction cost and loan default by financing Joint Liability Groups. This study is particularly focused on the impact of Joint Liability Groups on the income, expenditure and savings of its members.

Key words: Joint Liability Groups, Income, expenditure, savings, Self Help Group

### **Introduction**

An improvement in the standard of living of the people with sustained growth in income level, expenditure pattern and savings are the characteristics of economic development of a nation. The process and policies by which a country improves the economic, political and social well-being of its populaces is called economic development. In the same way, major components which determine the economic position of an individual consists his income level and asset holdings. Income may be defined as the inflow of money over a period of time. In order to increase the income level, the enhanced employment opportunities and increased investment in productive assets are inevitable. The reason for less investment in productive ventures is the lack of availability of funds. The fund used for productive ventures are Owned fund and Debt fund. If the owned fund is not available, the entrepreneurs can avail credit capital through loans. If loan facilities are additionally provided to the entrepreneurs, they can invest in the productive assets for improving production level. If production level improves, more employment opportunities can be created. Thus the provisions for more loans and advances for

productive enterprises increases the opportunity for more goods and services to the society along with an increase in the income level. It will create an environment for increased purchasing power in the society and the demand for goods and services will improve. This will provide further opportunity to increase the income level of society through more wages and salary with improved employment condition. Also more profit, interest and dividend go in the hands of the investors. All these conditions improve the overall economic position of individuals and society in the form of increase in standard of living, income level and asset creation. Joint Liability Groups are one of the channels through which the availability of fund to the hands of people or investors in the form of loans and advances.

### **Joint Liability Group (JLG)**

Joint Liability Group is an informal group comprising preferably of 4-10 individuals coming together for the purpose of availing bank loan either singly or through the group mechanism against a mutual guarantee. Generally, the members of a JLG would engage in a similar type of economic activity. In certain groups, members may prefer to undertake different type of economic activities as well. The members would offer a joint undertaking to the bank to enable them to avail loans. JLG members are expected to provide support to each other in carrying out occupational and social activities. It is primarily a credit group but savings can be an optional activity. Another feature of JLG is that the quantum of credit is not dependent on savings and no collateral will be demanded by banks against their loan to JLGs. So at one level JLG takes care of the needs of mid. Segment client like small farmers, micro. entrepreneurs etc. and at another level it also takes care of the more marginalized sections of the society who do not have access to proper documents like land records and property records. Thus, the JLG has proved to be is the best medium for financing landless farmers, tenant farmers, share croppers, oral lesser & micro-entrepreneurs having less or no tittle to land. This study is mainly intended to evaluate the Joint Liability groups to understand its impact on the income of its members or beneficiaries.

### **Statement of the Problem**

It is very difficult for the small and marginal farmers to raise the required finance from their owned sources. These farmers depend heavily on credit to carry out their agricultural activities. They mainly arrange for funds from moneylenders at high rate of interest as banks are reluctant to give loans to these people. The high transaction cost and inadequate collateral securities prevents banks from lending to these poor. Government came up with many programmes to deal with this situation. Among them the Self Help Groups Bank linkage model was one of the most successful one. It brought tremendous relief to the poor as well as bankers cater to them. But recoveries from the middle categories of borrowers in rural banking sector still caused concern for the bankers. These segments also did not have much physical collateral to offer but also were in terrible need of credit. There arise the need of JLGs (NABARD, 2014). And the literature

shows that there exists no serious, scientific and systematic study has been conducted to understand the impact of JLG on the economic position of its members. Therefore there exists a research gap.

### **Significance of the Study**

The main reason that the formal lending sector often disregards the poor is the high transaction costs associated. Additionally lack of sufficient collateral serves as a major blow to the lender. It is seen that today many microfinance institutions have been using joint liability lending schemes to reduce the transaction costs and default rates. The special feature of JLG scheme is that loans are advanced to the group but each member is responsible for the loan of every other member. This means that if one group member defaults, the other members will be cut off from future access to funding for their businesses. Joint liability creates an spur for members to help each other and repay the loans taken. If a group is able to excel well and fulfill its obligation on time then joint liability schemes can improve social welfare (Padma et.al, 2014). In this context it is very relevant to learn the impact of JLGs on the economic condition of its members and the ways in which the activities can be boosted.

### **Objectives**

1. To study the impact of JLG on the income, expenditure and savings of its members
2. To evaluate the functioning of JLG

### **Scope**

The scope of the study is limited to the geographical area of Alappuzha district in Kerala. The study is confined to measure the impact of Joint Liability Groups on the income of its members. The units of study are the beneficiaries of Joint Liability Groups.

### **Methodology**

The study is analytical and descriptive in nature with the use of primary and secondary data. Secondary data are gathered through extensive and intensive literature survey and the primary data are collected directly from the members of Joint Liability Groups. A well-structured interview schedule is utilised as an instrument for data collection. The reliability (sig.value  $0.78 > 0.5$ ) and validity (sig.value  $0.76 > 0.5$ ) of the instrument is achieved. The population of the study is 44800 live members of Joint Liability Groups (NGOs). The sample size is 440 JLG members. Multi-stage random sampling technique is used for the study. The statistical tools for analysis consist mean and paired sample t test. The normality of the data is at an accepted level (sig.value  $0.071 > 0.05$ ).

## Analysis and Discussion

The main purpose of the study is to analyse the impact of JLGs on the income, expenditure and savings of its members. An evaluation of the functioning of JLG is also carried out.

### Impact of JLG on income of its members

In order to analyse the income of JLG members, the level of monthly income from all sources before and after joining JLG was collected and analyzed. The five sources of income were identified viz, Agriculture, Interest/Dividend, Wages/ Salary, Income from Business/Trade.

Table 1 Monthly Income from all sources before and after joining JLG

Sl. No.	Sources of Income	N	Before JLG (Rs.)	After JLG (Rs.)	Rate of Change (Rs.)					
					Increase		Decrease		Stagnated	
					Amount	%	Amount	%	Amount	%
1	Agriculture	404	11405	14770	3365	29.51	-		-	
3	Interest/Dividend	57	850	850	-	-	-		0	0
4	Wages/ Salary	397	16813	22025	5212	31.00	-		-	
5	Income from Business/Trade	43	2250	2880	630	28.00	-		-	
Monthly Income from all sources			31318	40525	9207	29.40	-		-	

Source: Primary Data

Table 1 illustrates the monthly income of the JLG members from all sources before and after joining JLG. The income from Agriculture, Wages/Salary and Income from Business/Trade have increased by 29.51 percent, 31 percent and 28 percent respectively after joining JLG. And the Monthly income from all sources shows an increase of 29.40 percent. Therefore it can be concluded that the monthly income of the JLG members from all sources before and after joining JLG have increased.

### Testing of Hypothesis (H1)

H0: There is no significant increase in the income levels of the JLG members after joining the Joint Liability Group.

Ha: There is significant increase in the income levels of the JLG members after joining the Joint Liability Group.

Table 2 Paired Sample t test of income level of the JLG members before and after joining the Joint Liability Group.

Income levels	Mean	SD	t value	P Value
Before Join JLG	31318	1809.21	93.704	<0.01**
After Join JLG	40525	2324.05		

Note: \*\* denotes significant at 1% level

Table 2 shows the P value given in the table is <0.01 at 1 per cent level of significance. Since the P value is less than 0.01, the null hypothesis is rejected at 1 per cent level of significance. Hence the null hypothesis H<sub>0</sub> 2 that “There is no significant increase in the income level of JLG members after joining the JLG” stands rejected. And the alternate hypothesis is accepted. Therefore it can be concluded that there is a significant increase in the income level of JLG members after joining the JLG.

### Impact of JLG on the Expenditure Pattern of its members

Expenditure is the amount spends for meeting the day today requirements of the households. The expenditure pattern of the households indicates the availability of income to spend on their increased daily requirements.

Table 3 Monthly Consumption Expenditure pattern of household before and after joining JLG

Sl. No.	Household Expenditure	N	Before JLG (Rs.)	After JLG (Rs.)	Rate of Change (Rs.)					
					Increase		Decrease		Stagnated	
					Amount	%	Amount	%	Amount	%
1	Food	440	9085	11393	2308	25.40	-		-	
2	Clothing	440	1069	1339	270	25.26	-		-	

3	Education	398	633	769	136	21.48	-	-	-
4	Healthcare	440	777	935	158	20.33	-	-	-
5	Festivals	440	680	1100	420	61.76	-	-	-
6	Cable TV	412	278	321	43	15.47	-	-	-
7	Mobile phone	440	412	502	90	21.84	-	-	-
8	Transportation	440	740	913	173	23.38	-	-	-
9	Electricity, fuel & Water	440	1288	1605	317	24.61	-	-	-
1 1	Newspaper & Periodicals	402	235	277	42	17.87	-	-	-
1 2	Other Expenses	440	515	634	119	23.11	-	-	-
<b>Total Monthly Expenditure</b>			<b>15712</b>	<b>19788</b>	<b>4076</b>	<b>25.94</b>	-	-	-

Source: Primary Data

Table 3 describes the monthly expenditure on Food, Clothing, Education and Healthcare increased by 25.40 percent, 25.26 percent, 21.48 percent and 20.33 percent, respectively after joining JLG. Expenditure on Festivals, Cable, Mobile and Transportation showed an increase of 61.76 percent, 15.47 percent, 21.84 percent, 23.38 percent respectively. Expenditure on Electricity, Fuel and water; Newspapers and periodicals showed an increase of 24.61 percent, and 17.87 respectively. Other expenses have increased by 23.11 percent. And the Monthly Expenditure from all sources shows an increase of 25.94 percent. Therefore it can be concluded that the monthly Expenditure of the JLG members from all sources before and after joining JLG have increased.

## Testing of Hypothesis (H2)

H<sub>0</sub>: There is no significant increase in the household expenditure of JLG members after joining JLG

H<sub>a</sub>: There is significant increase in the household expenditure of JLG members after joining JLG

Table 4 Paired Sample t test of the household expenditure of the JLG members before and after joining the Joint Liability Group.

Expenditure levels	Mean	SD	t value	P Value
Before Join JLG	1498	297	158.427	<0.01**
After Join JLG	3078	422		

Note: \*\* denotes significant at 1% level

Table 4 illustrates the P value given in the table is <0.01 at 1 per cent level of significance. Since the P value is less than 0.01, the null hypothesis is rejected at 1 per cent level of significance. Hence the null hypothesis H<sub>0</sub> that “There is no significant increase in the Expenditure level of JLG members after joining the JLG” stands rejected. And the alternate hypothesis is accepted. Therefore it can be concluded that there is a significant increase in the Expenditure level of JLG members after joining the JLG.

## Savings

An amount kept for meeting future requirements after meeting the daily needs is called savings. Depositing money in the bank account, chit funds, Post Office savings are some of the methods adopted to save money. An increase in the savings amount of members of Joint Liability Group shows a positive impact of JLG on its members.

Table 5 Annual savings before and after joining JLG

Sl. No.	Savings	N	Before JLG	After JLG	Rate of Change (Rs.)		
					Increase	Decrease	Stagnated

			(Rs.)	(Rs.)	Amount	%	Amount	%	Amount	%
1	Chit Fund	422	12813	15504	2691	21.00	-		-	
2	Post Office	301	1202	1418	216	17.97	-		-	
3	Cooperative Societies	240	4722	5620	898	19.02	-		-	
4	Bank	440	6835	7656	821	12.01	-		-	
5	JLG	440	0	44204	44204	-	-		-	
<b>Total Annual Savings</b>			<b>25572</b>	<b>74402</b>	<b>48830</b>	<b>190.95</b>	-		-	

Source: Primary Data

Table 5 shows the savings from Chit funds and post office have increased 21 percent and 17.97 percent respectively. Savings in cooperative societies and banks have increased 19.02 percent and 12.01 percent respectively. The annual savings of members comes around 190.95 percent. Therefore it can be concluded that the monthly income of the JLG members from all sources before and after joining JLG has increased.

### Testing of Hypothesis (H3)

H0: There is no significant increase in the savings of JLG members after joining JLG

Ha: There is significant increase in the savings of JLG members after joining JLG

Table 6 Paired Sample t test of the savings of the JLG members before and after joining the Joint Liability Group.

Savings	Mean	SD	t value	P Value
Before Join JLG	1012	198	119.47	

After Join JLG	2439	253	<0.01**
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Note: \*\* denotes significant at 1% level

Table 6 illustrates P value given in the table is <0.01 at 1 per cent level of significance. Since the P value is less than 0.01, the null hypothesis is rejected at 1 per cent level of significance. Hence the null hypothesis H<sub>0</sub> 7 that “There is no significant increase in the savings of JLG members after joining the JLG” stands rejected. And the alternate hypothesis is accepted. Therefore it can be concluded that there is a significant increase in the savings of JLG members after joining the JLG.

### Suggestions

1. It is seen from the findings of the study that all the variables related to the income and economic position of Joint Liability Group members have been increased after joining in the Joint Liability Group. About 30 per cent increase in the income of Joint Liability Group has been recorded. It is also seen that in the same rate their house hold expenditure and household asset have been increased. This shows the increased income has been utilized for improving their living conditions. There by Joint Liability Group has a positive impact in raising the living standard of the Joint Liability Group members. In this context, it is suggested that feasible awareness and education programmes should be formulated for providing more socio-economic empowerment to utilize the increased income in more productive way for raising the standard of living of the members. Educational and awareness programmes also designed to reduce the wasteful expenditure in the family life and in the productive venture.
2. It is seen from the findings of the study that the sort of financial discipline is maintained by the Joint Liability Group members in the matters related to the purpose of the loan, its utilization, savings and repayment of the loan. It is suggested that for providing more improvement in financial operations and enhance financial discipline, the operational principles of business finance and financial management shall be imparted through training programmes by financial professionals and professional bodies with the active support of banks and financial institutions especially the providers of finance.
3. Another suggestion is that an awareness programme on financial prudence should be

provided to Joint Liability Groups beneficiaries to make a retained earnings out of profit and surplus income for the purpose of reinvestment and bringing a sound financial position to the establishments.

4. The Joint Liability Group members shall be given the need for retaining a portion of the profit for providing sufficient working capital to the venture for the smooth flow of daily operations in order to have a sound working capital management.
5. Funding mechanism should be made more effective and transparent in order to present the opinion and views of members on different matters of the Joint Liability Group mechanism.

### **Conclusion**

The Joint liability group scheme for tenant farmers, micro-entrepreneurs, share croppers, helped them to improve their social and economic well being. The members were able to enjoy the benefit of high income, asset creation, improved decision making and better social acceptance. Thus it may be concluded that JLG scheme has brought about an overall improvement in the quality of life of members in all aspects. This scheme must be implemented with required modification among the rural masses elsewhere.

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## **An analyses of the Evolution of Ragamalika form of Music**

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### **Abstract**

The South Indian Music forms an impressive part of our precious heritage. It comprises many compositional types which are noted for their quality and variety. The musical imagination of our great vageyakaras, has from time to time evolved an astounding variety of musical forms with different functional scope for expressing the manifold beauties of the art. There are musical forms pertaining to saored, dance, opera and art music. Since the musical forms happen to be the foremost living definitions of the raga, and form the mainstay of these beautiful personalities in sound, the study of the musical forms in their technical, historical and utilitarian aspects has become indispensable. This paper traces the evolution of Ragamaliga form of Music in South India, which reveals the heritage of Indian Music.

The idea of ragamalika is as old as the concept of the raga. Matanga who is the first musicologist to use raga in a melodic sense and also the dest prabandha, known as ragakadambaka. The composition as south with this title came to be popularly known during the so called artistic period in the history of music. Many composers of this musical form, like Virabhadrayya, Ramasvami Diksitar, Muttusvami Diksitar and others flourished in Tanjore, Ragamalikas are attractive concert musical forms. They are long and pleasing compositions having both a laksana and laksya value. In one and the same composition a fine picture of many a raga is portrayed. One account of the presence of angas in different ragas, these ragamalikas are found to have more appeal. Virabhadrayya happens to be the earliest composer of ragamalika with ragamudra.

## Introduction

The South Indian Music forms an impressive part of our precious heritage. It comprises many compositional types which are noted for their quality and variety. The musical imagination of our great vageyakaras, has from time to time evolved an astounding variety of musical forms with different functional scope for expressing the manifold beauties of the art. There are musical forms pertaining to saored, dance, opera and art music. Since the musical forms happen to be the foremost living definitions of the raga, and form the mainstay of these beautiful personalities in sound, the study of the musical forms in their technical, historical and utilitarian aspects has become indispensable. This paper traces the evolution of Ragamaliga form of Music in South India, which reveals the heritage of Indian Music.

A musical form may be described as a concrete expression of a musical idea which is abstract and unmeasured. With the help of the factors i.e., rhythm and words, a more or less tangible form or shape is given to the music. A composition is an example of measured music, where as raga alapana is unmeasured music and is an elaborate exposition of the raga in all its varied aspects. The musical forms have to conform to a certain exactitude of form. each musical composition is found to be in a raga and tala, while words are introduced to convey meaning. Thus the three component elements of a musical form are bhava, raga and tala. No form in music can be created without the raga whereas attractive examples of musical forms without sahitya (words) exist (e.g. Jatisvara). Just as a literary piece has its existence in the sahitya or words so also a musical composition is a concrete expression of the raga in which it is composed.

The part played by the musical compositions in defining the laksana of the raga svarupa is unique. The indisputable attributes of a raga cannot be better illustrated than by our classical compositions. Music being essentially a practical art, the abstract forms in sound live mainly through the compositions of the great composers. Their

compositions not only have become famous as the laksya of our music, but have become the repositories of the laksana of our ragas. Since the main aim is the understanding of the raga, the different types of musical compositions delineate the richness of ragabhava. The various aspects of a raga can be grasped from the compositional types performed in concerts, like varna, kirtana, svarajati, pada, krti, javali and tillana, composed in the same raga. Since each musical form mirrors only a particular aspect of the personality of the raga, it is necessary that different types of musical compositions are to be learnt in one and the notation of different types of compositions in that raga, has been adopted in some of the manuscripts belonging to the Maratha period. These concert forms as such came into existence during the 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> centuries and constitute the substance of the laksya of Karnatic music as it exists today.

### **Ragamalika**

The idea of ragamalika is as old as the concept of the raga. Matanga who is the first musicologist to use raga in a melodic sense and also the dest prabandha, known as ragakadambaka. The composition as south with this title came to be popularly known during the so called artistic period in the history of music. Many composers of this musical form, like Virabhadrayya, Ramasvami Diksitar, Muttusvami Diksitar and others flourished in Tanjore, Ragamalikas are attractive concert musical forms. They are long and pleasing compositions having both a laksana and laksya value. In one and the same composition a fine picture of many a raga is portrayed. One account of the presence of angas in different ragas, these ragamalikas are found to have more appeal. Virabhadrayya happens to be the earliest composer of ragamalika with ragamudra.

A brief historical development of this musical form may be attempted. The different stages in the evolution of this may be analysed in the following manner:

- i) The ragamalikas wherein the sections are in different ragas.

- ii) The second stage in the development introduces the raga mudra in the various sections of the ragamalika.
- iii) The third stage witnesses the rise of additional angas such as cittasvaras, makutaa svara for the sections and viloma cittasvaras.
- iv) Ragamalikas in this section have sahitya for cittasvara and makuta svara.

The earlier name of ragamalika was ragakadambaka, and was described by writers since the time of Matanga. It was a popular desi mahaprabandha, in which the different sections, and padas are set in different ragas and talas respectively. Sarabhalila, Tribhangi, Sri Vilasa, Sri Ranga may be mentioned as examples of ragakadambaka. From the fact that the above prabandhas using a variety of raga and tala were signified as ragakadambakas, it is clear that the definition of ragakadambaka included and implied the ragatalakadambaka also. Sarngadeva refers to nandyavarta and svastika varieties of ragakadambakas. Of these, the former is in eight metres, eight talas and ragas. This again is an example of ragatalamalika. Svastika is a variety which employs four metres and a new raga for each pada, or half verse or metre. Abjagarbha is a ragatalamalika in 16 vrttas, talas and ragas. Bhramara used 32 vrttas, talas and ragas. Amredita employs 64 ragas and talas. It is believed that Gopal Nayaka was proficient in handling ragakadambaka of the bhramara type. The modern example of the simple ragamalika with sections in different raga may be found in the Tamil ragamalika 'Enakkunniru padam' - figuring in Arunacala Kavirayar's Ramanatakam. Originally set in Saurastra raga, this was later transformed into a ragamalika. The absence of raga mudra and cittasvara is noteworthy.

The cittasvara passages in the ragamalika is an additional decorative anga in the composition. The appendage of this set svara passage to each section of the ragamalika adds to the variety and liveliness of the piece. To facilitate an easy transition from the

music of the section to that of pallavi, a short cittasvara passage in the pallavi raga is introduced in the last avarta of the cittasvara. For instance, Nityakalyani Ragamalika by todi sitaramayya has the cittasvara and raga mudra. The ragamalika by Virabhadrayya has cittasvara and ragamudra (Namohanangim). In some ragamalikas like ‘Caturdasa ragamalika of Muttusvami Diskitar and ‘Nitya Kalyani’, the viloma krama cittasvaras are seen.

When the sahitya was introduced for the cittasvara passage adorning the various sections of the ragamalikas, the possible embellishments in a ragamalika perhaps reached a climax. In Pannagadrissa the sahitya is present for the cittasvara and makutasvara. The 72 melaragamalika of Maha Vaidyanatha Iyer is important from the technical point of view as it helps in the easy remembrance of the 72 melas and their characteristics.

According to the number of ragas used in a ragamalika, the titles such as navaratnamalika, naksatramalika, paksa malika, and caturdasa ragamalika are ascribed we come across ragamalika suladis, taranga, lavanis, daru and varnas also. In the post Trinity period, a number of raga malika composers flourished.

The introduction of cittasvara and svvara sahitya is found in ragamalikas and padvarnas and in the krtis of Matrbhuta Kavi and Tiruvarur Ramasvami Pillai. Sri Tyagaraja has introduced the svarasahitya pattern in his pancaratna. Syama satri, Subbaraya Sastri and others have indulged in this style of composition. The Madhyamakala sahitya and solkattu sahityas are found in the krtis of Muttusvami Diksitar. Songs with cittasvaras have been composed by Vaggeyakaras such as Syama Sastri, Diksitar and Tiruvotriyur Tyagayyar. Matrbhuta Kavi has composed a krti with a beautiful cittasvara passage (Nimadi callaga in Anandabhairavi). The svaraksara beauty adds to the literary beauty of the krti. Virabhadrayya has to his credit a composition, having attractive svaraksaras.

## The Ragatalamalika

The talamalika was known in earlier times as Talarnavam and Pancatalesvaram. When plural number of tala is used in a single composition, it is known as talamalika. In a ragatalamalika, plurality of both raga and tala is found. The ancient Umatilaka prabandha has three sections each in a different raga and tala. Sriranga prabandha has five sections each in a different raga and tala. The 108 ragatalamalika of Sri Ramasvami Diksitar is a classic example (Natakadi Vidyala). It is the only example of a ragatalamalika, employing the largest number of ragas and talas. It is in praise of Cinnasvami Mudaliar of Manali and published with notation in Sangita Sampradaya Pradarsini, which is a priceless lakshya laksana grantha in South Indian Music.

Some of the ragamalikas are mentioned below with particulars.

S.No.	Beginning Words	No. of Ragas	Tala	Composer
1.	Toyajaksi na mohananguni (contains raga mudra)	6	Not known	Virabhadrayya
2.	Ninnukorisa	5	Not known	Virabhadrayya
3.	Samajagamini	19	Adi	Ramasvami Diksitar
4.	Sivamohana sakti	38	Adi	Ramasvami Diksitar
5.	Manasaveri	48	Rupaka	Ramasvami Diksitar
6.	Astadasa ragamalika	18	Adi	Ramasvami Diksitar
7.	Caturdasa ragamalika (Sri Visvanatham Bhajeham)	14	Rupaka	Muttusvami Diksitar
8.	Purnaoandra bimbavijaya	6	Rupaka	Muttusvami Diksitar
9.	Simbasanastbite	4	Rupaka	Muttusvami Diksitar

S.No.	Beginning Words	No. of Ragas	Tala	Composer
10.	Dasavatara ragamalika (Kamalajasya)	10	Adi	Svati Tirunaj
11.	Pannagendra sayana	8	Rupaka	Svati Tirunaj
12.	Amba ninnu nera nammiti	9	Rupaka	Cinnikrsna Dasa
13.	Nityakalyani	8	Rupaka	Todi Sitaramayya
14.	Sodasa ragamalika (Sri ramanapadma)	16	Adi	Tiruvotriyur Tyagayyar
15.	Aparuparaga chatustaya ragamalika	4	Desadi	Manambucavadi Venkatasubbayyar
16.	Navaratna Ragamalika (Kabbimanammu)	9	Adi	Manambucavadi Venkatasubbayyar
17.	Arabhimanam	16	Adi	Tarangambadi Pancanada Iyer
18.	The 72 mela raga malika	72	Adi	Mahavaidyanatha Iyer
19.	Navaratnamalika (Garavamu ganna)	9	Rupaka	Subbarama Diksitar
20.	Valapumiri Todi	4	Rupaka	Subbarama Diksitar
21.	The 72 Raganga ragamalika	72	Adi	Subbarama Diksitar & Krsnakavi
22.	Navaratnamalika	9	Tisra Eka	Subbarama Diksitar
23.	Manatodinangita (A Tamil ragamalika)	6	Adi	Subbarama Diksitar
24.	Sri Yamuna	9	Eka	Subbarama Diksitar
25.	Vedukato kalyani	5	Rupaka	Subbarama Diksitar
26.	Sri Gana lola (Nityaratna Navaragamalika)	9	Rupaka	Subbarama Diksitar

S.No.	Beginning Words	No. of Ragas	Tala	Composer
27.	Navaratna ragamalika	9	Not known	Tirupati Narayanasvami Naidu
28.	Sudati Mohanangunim	15	Adi	Unknown
29.	Ragamalika svarajati or pancaraga svarajati	5	Adi	Svati Tirunal
30.	Navaragamalika varna (valaci vacci)	9	Adi	Patnam Subrahmanya Iyer
31.	Ragamalika Padam	9	Adi	Sarangapani
32.	Ragamalika Tarangam (Jaya Jaya Gokula bala)	5	Rupaka	Matu – Narayana Tirta Dhatu – Tiruvotriyur Tyagayyar
33.	Ragamalika Lavani (Bhupati Sri Sivendra)	5	Adi	Saveri Nagaraja Rao
34.	Ragamalika sloka	4	Rupaka	Svati Tirunal
35.	Ragamalika sloka	4	Adi	Svati Tirunal

Ramaswamy Diksitar was an eminent composer of verses, ragamalikas, kirtanas and a prabandha. His composition, 108 Ragatalamalika with the opening sabitya 'Natakadi Vidyalaya' in 108 ragas and talas brought him great honour at the hands of patrons and rajas. Manali Muthukrisna Mudaliar had great regard for him, while Cinnaya Mudaliar did Kanakabhishekam to him. It is said that when his son Cinnaswamy Diksitar lost his eye sight, he prayed to God and composed a ragamalika in 48 ragas. Thereupon his son got back his sight. His varnas in Ritigoula, Hindola, Vasanta Manohari, Purnacandrika, Sankarabharana are valuable. The solitary prabandha in Hamsadhavani raga beginning with the words 'Candasela' is historically useful. The krit 'amba ni saranamu' in Anandabhairavi represents the earlier form of that raga.

Sri Muttusvami Diksitar is said to have imbibed the best tradition of Merattur Virabhadrayya, through his father Ramasvami Diksitar, an eminent varna and ragamalika composer. Initiated into the field of music by his father and later under the guidance of Cidambaranatha Yogi he stayed at Banares where he received the Sri Vidya Upadesa. At Tiruttani, Diksitar was blessed by Lord Subrahmanya where he blossomed into a composer, singing the first song in Mayamalavagoula, “Sri Nathadiguruguhojayati” in praise of his guru. The mudra adopted by the composer is Guru guha.

### Conclusion

Ragamaliga with sections sung in different ragas came to have the ragamudra in the subsequent stages. This introduction of raga mudra in art musical composition emphasis the significance of the raga factor in melodic music. Further the idea of raga mudra in a ragamalika has its fundamental value also. The raga mudra prescribes the particular raga for the relevant section and any change in it may not be contemplated under the circumstances. The contributions of various musicians in Ragamaliga form kept it as a heritage and source of various musical forms in India.

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**NATIVE WIND INSTRUMENTS OF CARNATIC MUSIC****S. Rajeswari**

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The highest goal of every human being is to reach the absolute, or as they say, realisation, either directly or indirectly. Sages have enumerated a multitude of ways and means to attain this, but, amongst all of them, music has been found out, by our seers, to be the simplest and easiest path. The inner feelings and emotions of the primitive man induced him to make music in a natural way.

Right from the beginning of human history, musical instruments have been in existence. They are four kinds:-

Tata :- cordophones-stringed instruments

Sushira :- Aerophones-wind instruments

Avanaddha:- Membranophones –percussive instruments,covered with leather

Ghana:- Autophones-cymbals,castanets ets,

Research scholars in music, like Dr Curt Sachs, have stated that only wind instruments first came into being. There are some other, who feel that only percussive instruments took birth first, from making sound by stamping the feet by the people, during their joyful moments. S. Bandyopadhyaya, in this ‘musical instruments of india, In india, wind instruments are many folded and prevalent throughout. I wish to restrict this address only with some important native aerophones of

southindia. Flute, nagasvaram, mukhaveena, conch (sankha), kombu (srunga), ekkalam (kahala, in sanskrit), pungi, titti, tirucchinnam, vanka and many more instruments have been in use, from time immemorial, clarinet (invented by J.C. Denner in 1609), saxophone (made for first time in

1846 by Adolph sax), harmonium and suchlike travelled to india from the west, now occupying the carnatic music scene, almost every bridegroom's reception, in any hindu family, particularly in tamilnadu. We held with band music, till recent times, this was also called 'gunset' by the old timers,

Sankha is associated with lord krihna, 'panchajanya' being this name. Srunga is widely used in folk music and also in temples and palaces. Though krihna I always depicted with the flute,

Tirucchinnam is a brass wind instrument, always used in pairs, heralding the procession of a deity or a king. It is more or less a trumpet, but without keys. It must be noted here that the term, 'chhinnam' in general, means a wind instrument, as is known from the 'skanda maha purana'.

Pungi is the snake-charmer's pipe, also called 'magudi' or Bujangasvaram'. Some telugu works, for instance, 'kreedabhiramam' of vallabhacharya, name the snake charmer's pipe as nagasvaram.

Mukhaveena is not actually any veena, but only a small wind instrument, used with a double reed. It I a miniature nagasvaram and of about 10 inches long. Having six holes, its timbre I very sharp.

Flutes can be made of ivory, sandalwood, khadira, blackwood (dalbergia latifolia), cane, bell metal, brass, silver, gold etc, Vamsa: syadvainavo danta; khadirascha, chandano, athava-ayasa; kamsyajo raupya kanchanopi athava bhavet. It I quite common among the hindu writers on music, to Krishna, maddala to nandikesvara, and so on, or a deity to every part of an instrument.

'Vangiyam'', in tamizh, is another term, generally used for the flute. Many think that vangiyam means only the flute. ''kootta Nool'' of sathanar gives nine varieties of vangiyam: kuzhale enaikkonaiye kunai says, Ezhu viralidaiyitta innisai vangiyam, kunai says, ezhu viralidaiyitta innisai vangiyam (which has seven holes to play).

In ancient tamizh classics, we come across the words, "konrai" teemkuzhal, mullai teemkuzhal and ambalam teemkuzhal. Kambaramayanam also refers to "konraiveinkuzhal kovalar. Though it is common to accord the second place to venu (flute) in the order-veena, venu, mrudangam-the first place should justifiably be only to the venu. The yajh had to be turned only on the basis of the pitch, sounded by the flute.the sangam classic, "kalittogal" describes this: Narambin teemkural nirkukum kuzhal.

The kuzhal or vamsa or venu is a delicate instrument and is capable of producing very beautiful grace, embellishment, nuances and shades of music. Its tone is haunting beauty. Rapid phrases (brugas), as well as larger skips (jarus) are very easily manipulated on this. "kurumkuzhal" is a smaller variety of flute. Very much in use in kerala.

India is a land of villages and the old adage is 'koyil illa ooril kudiyrukkavendam'. A village sans a temple is unfit for human habitation and hence temples are numerous, particularly in the southern part of our country .there is no temple in tamilnadu, that had not a nagasvaram troupe on its staff. though ill-paid, the nagasvaram artist's service during the daily rituals and also during the festivals, is very important.

In kannada works, nagasvaram is spoken of as "nagasara" ,"nagam", a variety of vangiyum, spoken of by "kootta nool", is the shorter form of the name, nagasvaram. It has three kinds: Bari-this has low pitch(C or C sharp)and is exclusively used only in the tyagaraja temple of tiruvarur, timiri smaller in size, but high pitched(F to G),only this variety was in currency among the players, until other modified ones appeared.

Synopsis :

In this article I am explained about wind instruments types and its uses.Flute,nagasvaram,mukhaveena,conch(sankha),kombu(srunga),ekkalam(kahal, in sanskrit), pungi, titti, tirucchinnam, vanka and many more instruments have been in use. It is mainly used as a wind instrument in southern music is flute and the nagasvaram remain as the traditional and native wind instruments in the carnatic music world.

With regard to this origin, it is generally said by some, that nagasvaram appeared only in the 17<sup>th</sup> century, which is but a false statement. The Tamil work, 'bharatasattiram' considered to be of the 14<sup>th</sup> century says: vedattile ninrezhu nagasvaram. The yazh had to be tuned only on the basis of the pitch sounded by the flute. The sangam classic, "kalittogai" describe this: narambin teemkural nirukkum kuzhal.

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## Tavil and it's Manufacturing Methods

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The musical system of south Indian has a long antiquity when compared with other systems of music around the globe, the uniqueness of south Indian music is quite obvious. Nowhere else one could find the mathematical manipulations of laya, as it is in our music. Pallavior svaraprastara are buildings constructed upon the edifice of this mathematical intricacies of laya. The blending of mathematics and melody is the crest jewel of our musical system. By giving predominance to such intricate mathematical combinations and be serving as the beacon light for other percussive instruments, it is the tavil, a membranophonous instrument that takes place in securing credit and greatness to our music, right from early times thought, years ago, it maintained a time honoured tradition to be the accompaniment only to nagasvaram.

All the percussives that take part in a classical music concert being only after the song is actually commenced. But only in the nagasvara performance, the sound of the main instrument nagasvara-starts only after the tavil play. This is unique for this instrument. Further, one more remarkable thing I there. All the syllables or tavil are sounded only in the same place, as taught during the early practicing sessions, even when they are executed in any phrase and even at an incredible speed. To explain it further, in us take he mirudangam, for instance. 'Ta' is sounded on the valantalai also. Is not tha case in the tavil 'Ta' or 'Tom' or 'ki'-whatever be the syllables, it is prodeuced always only at the same place, a taught in the initial lessons.

All these subscribe on the fact that tavil is the first and foremost instrument come up to portray the beauties of "Laya Vyavahara" and rightly acquired the name, "Raja vadya"

During the "laya vinyasa" on the tavil, a tradition is maintained .Whereas in other music concerts, laya vinyasa is done only after a kruti or pallavi rendition . It may either be the same case or at the end of a lengthy raga alapana in a nagasvara performance. If the laya vinyasa is

played after the raga alapana, it will be ended only with the ‘mohara’ and no ‘Muktayi’ should be played only when the laya vinyasa is presented after a kruti or pallavi now let us listen to a mohara. So on are quite common. Lord siva is said to have five faces.

The original name for alarippu is ‘Mela prapti’. This had a place in the Bharatanatyam performances of yester years and is even today found in the yakshaganas of Karnataka, the vedhi bhagavatas of Andhra Pradesh and the bhagavata mela of Melattur.

Another important form of playing the tavil is ‘nadaicchol’. It is usually played when the procession is on the move and only when the procession is on the move and only when one or more tavil players engage in playing, one after the other playing ‘nadaicchol’ has completely gone into oblivion. Laya vinyasam after a pallavi or kruti should end during every cycle in the exact graha-eduppu.

**Kattai:** the barrel-shaped wooden piece I called ‘tavil kattais’. Its both ends are open. Andaiwood, jackwood, mango, nuna, rosewood, margosa, and the baboolwood have been prescribed by the texts for making kattais. In the present times, only jackwood is used. There are two varieties: timiri and bari, just like the usage in nagaswaram. Timiri is shorter in length and circumference than the bari variety. The measurements of the present day

Tavil are:-

Length or height ----15.75 inches

Circumference of the centre ----- 11 inches

Radius of the mouth-valamtalai -----8.25 inches

Toppi -----8.25 inches

Thickness-central portion -----1 inch

Mouth-----1\8 inch

These are manufactured by carpenters, trained specially in this craft. Jaffna in Sri Lanka and Tiruvavaduturai in Tamil Nadu are famous for such craftsmen.

**VALAI :** the leather parchments of both the sides in a tavil are inserted on circular rings

called "valais". They have to be made with meticulous care and extreme perfection, otherwise the skin attached to them would easily tear off. Good bamboo sticks are selected and are broken into lengthy, but. Thin splinters and immersed in the water, for about two days. Then they are taken out and coiled in a cocoanut tree. Two days later, they are untied from the tree and put in brass cauldron, full of water. The bitter leaves of nochi and adatoda are also added in the water and boiled for a minimum duration of circular round, on rings of iron, already made to suit the required size and gum made out of tamarind seeds is fully pasted on them sometime later, the bamboo strips are detached from the iron rings and small ligaments of leather called, 'suraivar' are wound over hem tightly and once again the gum is fully coated. When they are dried in hot sun they are ready for use. Tiruvaiyaru is the place, where there are best valai makers, like govindaraja pillai.

#### **LEATHER PARCHMENTS :**

The leather portion at both ends of the tavil give rise to the sound. These are generally called "tattugal" among the tavil players and not 'moottugal' as termed by the mrudangam players generally, female goat's skin is to be used, for the valantalai and male goat's skin or calf's skin, for toppi. But at present, that is since three or four years, only calf's skin is used for the valantalai, for it produces more voluminous sound.

**CONNECTING STRAPS :** Both side of the tavil-the tattus are placed on the wooden barrel and connected and strongly tightened with the help of leather thongs made out of buffalo's skin. But using this is now discarded, for, small iron straps are placed on the instrument, with screws and nuts. The nuts are tightened or loosened, according to the requirement.

**MODIRA VALAIYAM:** A small brass ring is used to tie the leather strap. But after the advent of screws and nuts, this has fallen into disuse.

**VENDAIYAM :** A circular bronze is used to join the instrument with a thick cotton ribbon, called 'nada' which helps to hang the instrument on the shoulders.

#### **SYNOPSIS :**

There is a common sentiment to attach divinity to tavil, though, every musical instrument

is also divine. But divinity is ascribed music more to the tavil. One may consider this as false superstition. Nobody is allowed to come near when the leather parchments are fixed on the tavil and none would be allowed to stand in the place with one leg on the floor and the other on the wall. One could clearly witness the skin, if any body near is cross-legged or if someone takes a 'fillip' in the finger, not to speak about the ladies approach.

**BOOK REFERENCE :**

1. History of south Indian carnatic music
2. Divinity of music and dance
3. Gremmer of carnatic music
4. Tavil vasikka kattu kollungal

## A STUDY ON YOUTH PERCEPTION AND AWARENESS TOWARDS SKILL INDIA TRAINING PROGRAMME

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### **ABSTRACT**

India is one of the youngest nations in the world with over 50 percent of the population under 30 years. India's young population is most valuable asset and most pressing challenge. Youth is the time of life when one is young and often means the time between childhood and adulthood. More than 30 percent of Indian youth are unemployed and also not involved in any education or training. Also depression is a very common yet overloaded disease among youth in India. Youth can be promoting social economic development and sustainable growth in India, Youth in India situation and offers a roadmap for programme and priorities that aim to address youth needs it highlights that in order to fully meet the needs of youth in a rapidly globalizing world and enable a country to reap the benefit of the demographic dividend. This paper discuss that most Indian youth facing serious unemployment problem, lack of job skills and skill based job. The India's skill development system facing challenges to train the youth due to the current state of education, skill development and employment for rural youth. The present paper is based on the primary data which was collected from the respondents of the study area Kanyakumari District. Most of the youth are not aware of modern technology which helps in the development and growth of the country. Skill development motivate the youth to develop the quality of self development and entrepreneurship concepts by providing training in several activities and it also provide a financial internal. This makes an attempt to discuss the perception and awareness

towards Skill India Training Programme.

**Keywords: Youth, Skill, Skill India, Skilled Human Resource, Perception, Awareness**

## INTRODUCTION

India is a very young country and half of the population is under the age of 25. As the fastest growing economy today, India is home to a fifth of the world's youth. Half of the population of 1.3 billion is below the age of 25, and a quarter is below the age of 14. It provide India with a unique demographic advantage. As per India's census 2011, youth (15- 24 years) in India constitutes one fifth (19.1%) of India's total population. India is expected to have 34.33% share of youth in total population by 2020.

India tops the list with 356 million young people as the country of world's largest youth population. Its population growth rate is 1.13% ranking 112<sup>th</sup> world in 2017. The United Nations defines youth person between the age of 15 and 24 with all UN statistics based on this range, the UN stated education as a source for these statistics. It is expected that, in 2020, the average age of an Indian will be 29 years, compared to 37 for China and 48 for Japan and by 2030 India's dependency ratio should be just over 0.4.

India has, for a long time, recognized the importance of youth in social and economic imperative has made an enormous contributions in economic development by introducing innovative ways to empower the poor and employment. Indian youth at present is facing many problems like unemployment, lack of skills and skill based job. The real challenge in front of the policy makers is to create enough jobs in the market for this educated work force so as to direct youth and nations. Our country recognizes the importance of youth in the society so that various steps taken to ensure that the workforce of tomorrow has future ready skills, therefore the Honourable Prime Minister Narandra Modi of India in March 2015 introduced a skill India concept and it was launched by them on 15<sup>th</sup> July 2015 on the occasion of World Youth Skills Day. Skill India is the initiative of India Government of India has initiated various programmes over the year like National Skill Development Programme (NSDP), Pradhan Mantra

Kaushal Vikas Yojana (PMKVY) and Skill Loan Scheme etc., under Skill India. Skill Development Programme aims at providing training and skill development to 500 million youth of our country by 2020 covering each and every village. Various schemes are also proposed to achieve their objective. National Skill Development Programme considers income generation activities as awareness for providing gainful employment to the youth. Most of the trainees were unemployed during the skill training programme. But after some employment or they able to generate an opportunities of self-employment.

## REVIEW OF LITERATURE

The review of related literature is very important especially in the initial stages of any research work and it is a crucial aspect of planning of the study.

1. **Jagdish Prasad and Purohit (2017)**, studied the skill development , employability and entrepreneurship through make in India. The study find out the overall status of skill capacity available, skill requirement, skill gap and initiatives taken by Government of India for skill development. The study concluded that the untended beneficiaries of the skill development programme join training programe with an inspiration to learn and make them self-reliant to live a better life. Mandatory monitoring and quality certificates should be in place which will ensure high standards training programs with prime focus on entering the employability.
2. **Punjani Krunal (2016)**, studied the requirement of skills development for the success of “Make in India” Project. The main objectives of the study was to analyze the requirement and existing level of skill development in India. The study concluded that the existing skill development policy in India needs an urgent treatment. The main findings of the papers are that only 10 percent of the Indian work force has formal training in the form of higher education, technical education or vocational training.
3. **Vandana Saini (2015)**, studied the skill development in India, need, challenges

and ways forward. The present paper attempts to study the present skill capacity, challenges in front of skill development initiatives in India along with their solutions. The study found that both the Government and its partner agencies have undertaken various measures / initiatives for the effective implementation of the skill development system in the economy, but still faces a number of unresolved issues / challenges that need immediate attention of the policy makers. The study concluded that for transforming its demographic dividend, an efficient skill development system is the need of the hour.

4. **Ankul Pandey and Nema (2017)**, analysed the impact of skill India training programme among the youth. The paper reviews that the most Indian youth facing serious unemployment problem even that most of youth are being educated but there is found a lack of skills and technical knowledge in the current scenario. The survey indicates that the respondent had faced several problem to setting up their own business even after the training which is require to be solved.
5. **Vibha Sharma (2016)**, studied the empowering youth through skill development , skill development policy and programmes of the Government of India. The study found that the highest numbers of youth live in poor countries of the world, where they face a number of barriers to achieve their potential. The study conclude that skill development policy and programs of Government of India help the youth to develop the quality of skills and overall development of among the youth.

## OBJECTIVES OF THE STUDY

The main objective of the study is to find out the youth perception and awareness towards Skill India training programme. The secondary objectives are

1. To study the socio-economic profile of the beneficiaries who take part in Skill India training programme.
2. To analyze the various problem faced by the youth in self-employment after skill India training programme.

## RESEARCH METHODOLOGY

The methodology is described by identifying the tasks for fulfilling the objectives of the study. Both primary and secondary data were used for the purpose of the study. Primary data were collected by using a well-structured questionnaire. Secondary data were collected from newspapers, Journals, Previous research work, and also from websites.

### Sample Design

The beneficiaries of Skill India training programme are the respondents of the study. A purposive sampling technique was used to select the respondents. A sample of 65 respondents were taken for the study.

### Tools for Analysis

Data collected from the study are tabulated, analyzed and presented with the help of appropriate tools of analysis by using appropriate mathematical and statistical tools. Simple percentage, Garrett's Ranking Technique and Chi-square test were used for the study.

## DISCUSSION AND ANALYSIS

### 1. Demographic profile of the respondents

A brief account of the demographic profile of 65 respondents is given below in Table 1.

**Table 1 - Demographic Profile of sample respondents**

Sl.No	Demographic profile	No.of Respondents	Percentage
	<b>Age (in years)</b>		
	Below 30	28	44

1	30-40	23	35
	40-50	10	15
	Above 50	4	6
2	<b>Gender</b>		
	Male	38	58
	Female	27	42
3	<b>Education</b>		
	Primary	30	46
	Secondary	20	31
	Graduate	8	12
	Post graduate	5	8
	Others	2	3
4	<b>Marital</b>		
	Married	42	65
	Unmarried	23	35

**Source: Primary data**

The respondents of this study include 58 percent males and 42 percent females. Age of the respondents was divided into four categories: below 30, from 30 to less than 40, from 40 to less than 50 and above 50 years old. The majority of the respondents were in the first category of below 30 years old. Majority of the respondents (65%) were married and remaining 35 percent were unmarried. Education was divided into five categories: Primary, Secondary, Graduate, Post Graduate and others. The majority of the respondents were in the category of primary ie 46 percent.

## **2. Benefits availed form the skill Development Training Programme**

The following Table 2 shows the benefits availed from the skill development training porgramme of the Government.

**Table 2. Garrett mean score and ranking of the mean score of benefits availed from Training.**

Sl.No	Benefits of Training	Mean Score	Rank
1	Self Confidence	62.78	I
2	Entrepreneurship	52.22	VI
3	Skill Development	55.32	V
4	Communication skills	45.65	X
5	Positive thinking skills	58.61	IV
6	Personality development skills	61.55	II
7	Management skills	47.22	IX
8	Behavioural skills	50.12	VII
9	Job and Job Employability Skills	49.12	VIII
10	Technical skills	59.45	III

**Source: Primary data**

The above table shows the benefits of training availed from the skill development training programme. Among the various benefits of training “Self Confidence” ranked first with a mean score of 62.78, “Personality Development Skills” ranked second with a mean score of 61.55, “ Technical Skills” ranked third with a mean score of 59.45. The last rank was given “Communication Skills” with a mean score of 45.65.

### 3. Skills covered by Skill India

Skill India will focus on core sectors including construction, gems and jewellery, banking and finance, transport & tourism and entrepreneurship. The following table 3 shows the percentage of respondents who have undergone training

**Table.3 - Covering areas of Skill Development Programme.**

Sl.No	Area of Training	No.of respondents	Percentage
1	Agriculture / Horticulture	14	22
2	Automobile / Auto Components	11	17

3	Beauty and Wellness	5	8
4	Construction	12	18
5	Gems and Jewellery	3	4
6	Plumbing	1	2
7	Leather works	2	3
8	Retailing	7	11
9	Rubber works	4	6
10	Banking & Financial Services	6	9
	<b>Total</b>	<b>65</b>	<b>100</b>

**Source: Primary data**

The above table 3 depicts the covering area of skill development programme. Out of the 65 respondents, 22 percentage of them have undergone training on Agriculture and Horticulture, 18 percentage have undergone training in Construction Skills, 17 percentage have undergone training in Automobile and Auto components skill area and 11% in Retailing Skill area. Only 2 percentage of the respondents have undergone training programme on plumbing works.

#### **4. Problem faced by the youth after training programme**

After the skill development training programme the trainees faced many problems like lack of awareness, lack of subsidy and lack of technology. The following table reveals the perseverance of problem even after the training programme.

**Table 4 . Garrett mean score and ranking of the mean score of the problem faced by the respondents after training programme**

<b>Sl.No</b>	<b>Problems</b>	<b>Mean Score</b>	<b>Rank</b>
1	Lack of Technology	49.31	III

2	Lack of Awareness	48.22	IV
3	Stiff Competition	52.12	I
4	Lack of Subsidy	51.02	II
5	Lack of Raw materials	46.33	V

**Source: Primary data**

The above Table 4 depicts the problem faced by the respondents even after training programme. Among the various problems of after training “Stiff Competition” ranked first with a mean score of 52.12, “Lack of Subsidy” ranked second with a mean score of 51.02, “Lack of Technology” ranked third with a mean score of 49.31, “Lack of Awareness” ranked fourth with a mean score of 46.33, and “Lack of Raw materials” ranked fifth with a mean score of 46.33.

**5. Relationship between Demographic Profile of the respondents and the problem of Unemployment and Self-employment faced by Youth.**

(a) Age and problem of unemployment and Self-Employment faced by youth

**H<sub>0</sub>:** There is no significant association between age group with regards to problem of self employment.

Particulars	Chi – Square Value	D.F	Table Value
Age and problem of unemployment and self employment	18.22	3	7.815

**Source: Computed data**

Since the calculated value 18.22 is more than the table value (7.815) at 5 percent level of significance, the null hypothesis is rejected. So there is a significant association between age group and problem of unemployment and self employment faced by the Youth.

- (a) Gender and problem of unemployment and self employment
- (b) **H<sub>0</sub>**: there is no association between Gender and Problem of unemployment and self employment
- (c)

particulars	Chi – Square value	D.F	Table value
Gender and problems of unemployment and self employment	1.66	2	3.841

**(d) Source: Computed data.**

- (e) Since the calculated value 1.66 is less than the table value 3.841 the null hypothesis is accepted. So there is no association between gender and problem of unemployment and self employment

### I. SUGGESTIONS

1. Government of India take necessary steps to reduce the unemployment problem through running the skills development programme more effectively
2. To start new centers in different parts of the country.
3. To include new courses in the existing centers.
4. To provide infrastructure to support these centers.
5. To provide subsidy for establishing the business

### CONCLUSION

Skill India is one of the important initiative of the Government of India. It's aim is to train over forty crore people in different skills by 2020, in India and it also able to create new opportunities, space and scope to the talent of Indian Youth for self-employment. The several schemes help youth to develop the quality of skills, upskilling and reskilling in various areas through training programme which is automatically increase the personality development and overall development among the youth. The skill development initiatives is appreciable, but there is a need for a more meticulous

implementation approach. The current model requires a through re-examination and plugging on the gaps for providing a sustainable source of livelihood to a large set of the population.

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## CBT For Low Self Esteem Young Adults: A Case Example.

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### **Abstract**

Self-esteem is an overall estimation of a person's value expressed in a positive and negative way. Its development starts from early childhood and constantly changes according to the experiences in their life. If their development and changes are in a healthy, lovable, trusty way then the young adults would gain more self-confidence, self-worth, and challenges to face in a positive way. If the early development and changes were in an unfavourable conditions like strict parents, less warmth and care, and more criticism they would lose confidence, self-worth and fail to achieve success and accomplishment. This affects their academic journey in various ways and not able to prove themselves in this competitive world. Counseling plays a major role in colleges treating young adults with their clear thoughts and goal and see the world in a more realistic way. The researcher being a psychological counselor helped to treat the students with intervention CBT- Cognitive Behaviour therapy- An association of thoughts, emotions, and behaviour. These young adults when intervened through CBT will be able to view themselves and the world in a very positive way. The importance of psychological intervention of CBT is done through a case example.

### **Introduction**

Low self-esteem is common among young adults. It is a distressing and disabling problem seen in young adults. Students who enter college or any change in life events put them in an uncomfortable situations. When their expectation is beyond their limit they became intimidated and try to perceive themselves as not worthy and view the world in a negative way. This creates more issues in their academic journey.

Self-esteem is the degree to which one feels good about themselves, self-worth, and gains self-respect. It is a human need vital for survival. It exists on a continuum of high to low. If one's self-esteem is high they feel confident about themselves and they treat themselves with respect. It is my overall personality to become a confident person. If one is good at self-

esteem, he/she will be able to perform well in all actions and be bold, have a good interpersonal and intrapersonal relationships. When a person is low in self-esteem, will not be able to perform and feel others are judging and will not be productive, and will not have good interpersonal and intrapersonal skills. In college, students with low esteem face a lot of issues and view their life negatively.

### **Causes of low self-esteem**

Some people develop low-esteem when young because of strict parents. Adults harshly criticize a child for the mistakes which they internalize and get messages as not worthy. Adverse childhood experiences and bullying in schools and colleges also make their esteem low. Parents should know the facts of young adults and should help them to overcome the challenges they face in their teen period with love, respect, and trust, (Adler.A, 1996). Demoralizing life experiences also lead to lower esteem.

Break-up issues, low grades in colleges, and other life changes cause fear or self-doubt. These feelings affect their self-worth, confidence, and resilience. They start viewing their life in a negative way. When this prolongs for a longer time leads to mental health issues like depression, (Brown, Bifulco, & Andrews, 1990). Low self-esteem is associated with self-harm and suicidal behaviour, (Hawton, Rodham, Evans, & Weatherall, 2002). Self-esteem is also related to peer and social acceptance. (Gruenenfelder-Steiger, Harris, & Fend, 2016).

Common Signs of low self-esteem are self-criticism, self-blame, self-doubts. They focus more on negatives and weaknesses and ignore the praises. The emotional feelings are sadness, anxiety, guilt, shame, and sometimes frustrations and anger. Behavioural changes were they find difficult to make decisions, non-assertive, avoiding challenges, and opportunities. Low self-esteem people are very judgmental and worrying about how others think of them, a people pleaser and oversensitive to criticism. (NHS). So low-esteem is distressing and disabling in its own rights.

Effective treatment of low self-esteem is done by CBT- Cognitive Behaviour therapy. Beck's cognitive therapy originally developed as a short term for depression Beck et al, (1979). It integrates concepts and methods in a well validated form for anxiety Beck et al, (1985) and more experimental ideas and interventions in the treatment of personality disorder Beck et al, (1990). The cognitive model is very helpful in analyzing low self-esteem, Fennell (1997).

### **Aim of the Study**

The aim of the study is counseling through psychological therapy of CBT helping students with low self-esteem. CBT is to explore the link between thoughts, emotions,

and behaviour. It is a psychotherapeutic treatment that helps to understand between thoughts, feelings, and behaviour. It helps to reduce the negative core beliefs and be self-aware of oneself.

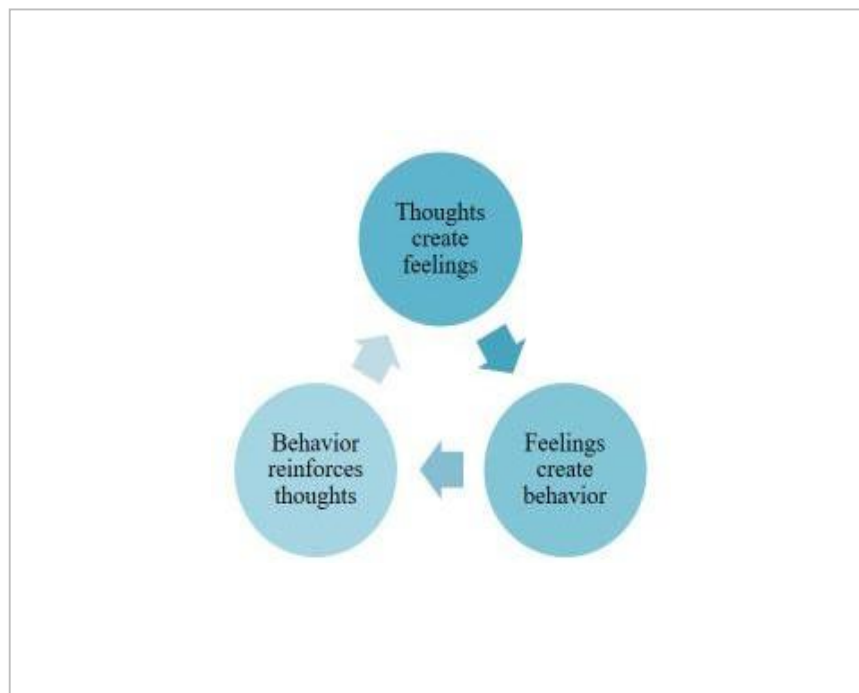
**Case Study**

A student named Vignesh (pseudonym is taken to protect student’s privacy and confidentiality) came for counseling. Vignesh was 20yrs old low socio-economic male who grows up with parents who were strict. He was in his 3<sup>rd</sup> yr. EEE in engineering college. Father was a government employee and mother house-wife. He had a younger brother doing higher secondary. There was always comparisons in his family that he is not good like his brother. He came to counseling stating that I am not able to talk about what I feel. Even if I try to talk, my friend will think bad of me for I may hurt them. I am not able to fit in with my friends’ group. Even if I do what friends do they don’t give importance to me. He states that no one likes me in my family nor college. Just a month back my girl-friend also break up with me. I feel like why I am not liked by other friends and this affects my performance in studies. This makes me feel I am worthless and people dump me.

Intervention started with,

**First session**

Started with warming up, building a rapport with the student acknowledging what he said. Appreciated for his volunteer approach to do counseling. Then psycho education of CBT, association of thoughts, feelings, and behaviour was taught. It is the thought that makes one feel bad and not the event or situation makes one feel bad.



Vignesh felt his self-worth has always been an external locus of control (having lots of friends, scoring more in academics, praise from his peers and family, loved by all). This caused him to negative beliefs and assumptions of negative thinking lead to negative biases.

### **Second and Third Sessions**

The second and third sessions to evaluate the faulty belief through the Vertical Arrow technique. This was done with successive questions to the thoughts he answered to get an absolute statement. He had a faulty belief of I am unlovable and unaccepted.

Vignesh was able to be aware of himself how vulnerable he was by the actions he had done in the past. He was given homework to write immediate thought when an upsetting situation happens.

### **Fourth and Fifth Sessions:**

The fourth and fifth session was used to analyze cognitive distortion with examples that happened in a week. Cognitive distortion was explained to him with examples. It was found he was mostly overgeneralization like nothing ever works for me, discounting positive, mind reading, and labeling I am worthless. This helped him to find his faulty distortion that he has viewed about himself and others.

### **Sixth to Ninth Sessions:**

The sixth to the ninth session was about reframing of thoughts. This was taught by introducing logical questions like is that true and challenge the assumptions with more alternate and realistic thought. This was done in a repetitive and rehearsal way. A Triple column sheet was given to him as homework for a week to find the upsetting event, cognitive distortion, and find alternate thought to it. This helped him view his life from a different perspective.

### **Tenth to Twelfth Sessions:**

The Tenth to Twelve sessions was combating self-criticism and self-acceptance. He was able to reflect on his self-criticism and how it combats and not helpful and undermined his motivation and enjoyment in his life. To challenge self-criticism a set of questions was asked how you would view someone else in this situation. This helped to overcome his self-sabotage. He decided to aim to work with life philosophy rather than I should be loved by all, and I want greater appreciation and pride.

To bring self-acceptance, he was asked to track three positive qualities on daily basis and increase the activity schedule which brings a sense of pleasure and satisfaction. He liked to do exercise and long bike drive. He started to work on activity and could see his positive approach in his life. He felt very energetic and very challenging to face in an optimistic way. Relapse prevention was also taught to

him. At the end of the treatment, Vignesh found that the techniques favourably helpful to him were his negative distortion and reframing of thoughts.

### Discussion

In college, students face a lot of challenges, hurdles, and risk which could make their life miserable and unsuccessful. When not able to cope up with the challenges they feel weak, and lose self-confidence. This leads to low self-esteem and become unproductive. Sometimes can also lead to suicidal ideation. They would start viewing their life in a negative way even if they could see positives in their life. Counseling is need of the hour in today's generation. Therapy in counseling like CBT helps the affected young adult and brings a positive change in their life.

### Conclusion

Because of Counseling through CBT, there was an improvement in his life with goal and purpose. Vignesh was able to shift his perspective from negative to positive thoughts, had better relationships with friends and family. CBT helped to change the core belief over a period of time. This develops a sense of well-being in young adults and helped to perceive goals successfully.

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## A CASE STUDY ON SANITARY WORKERS IN LIONSTOWN AREA THOOTHUKUDI TOWN

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### **Abstract**

Our atmospheres of living are a matter of view of controlling of large part of the preventable ill health. Sanitary workers have played an important role in improving the urban and semi-urban ecological environment and the urban modern civilization, meeting the needs of people's desires for physical, spiritual, political, ecological civilization and implementing the social sustainable development. Sanitation workers perform a valuable service to their communities collecting garbage and removing it to proper disposal areas such as dumps or landfills.

**Keywords:** Sanitary Workers, Municipal Solid Waste, sewerage, hazardous

### **INTRODUCTION**

A sanitation worker has a dirty job, but it's one that most communities can't live without. Sanitation workers perform a valuable service to their communities collecting garbage and removing it to proper disposal areas such as dumps or landfills. They go by many names: garbage man, trash man. A sanitation worker must be physically fit, so he can quickly climb in and out of large trucks and lift heavy trash containers. The job is physically demanding. Sanitation workers routinely lift heavy objects and work in all weather conditions. There is also a significant injury risk associated with the job. During natural and manmade disasters, sanitation workers participate in emergency response and cleanup. Sanitation Workers are required to work rotating shifts, rotating days off, nights, Saturdays, Sundays, holidays and mandatory overtime. Sanitation workers mostly carry out their work in unsafe working conditions without protective gears or other safety gears or other safety devices. Death or serious injury to sanitation workers while cleaning sewerage with no or inadequate safeguards are frequent incidents. Those people are exposed to dangerous toxic and harmful substances. But this problem is not adequately addressed in the legal framework. A sanitation worker has a dirty job, but it's one that most communities can't live without.

### **RIGHT TO SANITATION IN INDIA**

In 2014, the Government of India launched the Swachh Bharat Mission (SBM), its flagship programme on sanitation. This has triggered a significant momentum in the sanitation sector in India. Although the SBM is more or less a continuation of the erstwhile policy frame work on sanitation in India (The Nirmal Bharat Abhiyan in the rural sanitation context), it did manage to bring sanitation to the forefront in the agenda of implementation agencies. The state machinery including the machinery at the local level has started focusing more on implementation of sanitation policies and programmes. Achievement of open defecation free status has all of a sudden become a target for the state governments and local bodies. The central government and state governments have been implementing a number of laws and policies to address sanitation issues. Despite this focus and increasing budget allocations, the abysmal sanitation scenario in the country persists. Some of the key sanitation issues and concerns are:

- a) Around 57% (626 million) of the 1.1 billion people in the world who practice open defecation are found in India. According to the 2011 census, the national sanitation coverage is 46.9%, whereas rural sanitation coverage is just 30.7%. For the marginalized such as the rural Dalits (23%) and tribals (16%), the figures are much lower. There are various reasons for the high rate of open defecation in India.
- b) In addition to the lack of toilets, the rates of toilet usage is miserably low, with rural areas in some states like Madhya Pradesh, Bihar, Jharkhand, Odisha, and Chhattisgarh with a usage percentage of 13.6% to 22% only.
- c) The 2011 census report notes that 22.39% (or over Rs. 3.75 crores) of toilets supposedly built through various government schemes at individual household levels do not exist in reality. (Hindustan Times, 2015).

### **MANUAL SCAVENGING AND SANITATION WORKERS**

The cleaning of sewerage systems and handling of human waste in general is still carried out primarily by Dalits, mostly Dalit women (Srivastava, 1997: 15). This improper and unscientific human excreta disposal practice is extremely dangerous to the health of the individuals involved in it, not to mention the mental and social trauma attached to it. Further, it is also harmful to the environment. Thus the continuance of the practice of manual scavenging is a violation of the right to sanitation as well as many other basic human rights including dignity and health. Use of dry latrines as well as its manual cleaning by people belonging to a few lower caste communities is incompatible and contradictory to the right to sanitation. Thus, the Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act was enacted in 1993 to prohibit the construction of dry latrines and the employment

of manual scavengers. However, most of the state governments, if not all, failed to implement the Act. This led to two important changes, a public interest litigation (PIL) filed in the Supreme Court in 2003 and the enactment of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.

### **HAZARDOUS WASTE**

Municipal Solid Waste Workers (MSWWs) are exposed to dangerous, often toxic, waste every day. Bioaerosols, medical waste, sanitary waste and carelessly disposed e-waste are only some of the toxic wastes they are exposed to on a regular basis.

- Bioaerosols are formed by the decay of organic waste. They contain several agents capable of inducing inflammation in the airways, including endotoxins, volatile organic compounds and fungi. Endotoxins cause more inflammation than any other component of bio-aerosols. This inflammation is non-allergic, but long lasting and causes permanent respiratory problems.
- Medical waste which are health hazards like used syringes, expired medicines, and glass bottles that once contained medicines are thrown along with regular waste.
- Exposure to toxic substances like cadmium and chromium from e-waste is dangerous and can cause serious health problems. Lack of proper awareness and prohibitive cost of healthcare is a major disadvantage for the waste workers.
- Garbage fires due to burning of garbage, either deliberately or by anaerobic decay of organic matter, which produce methane that catches fire. This in turn causes the release of several harmful gases, and the ash left behind is not only toxic but often carcinogenic as well. Waste workers sometimes need to sort through this ash to get the recyclables, exposing them to harmful compounds that are left behind post-incineration.

### **TYPES OF HEALTH HAZARDS FACED BY MSWWs**

- Carrying loads over long distances may cause musculoskeletal problems.
- Several studies conducted show that waste workers have a reduced lung capacity as compared to people who do not work with waste.
- Waste may be contaminated with fecal material. This may include biological pathogens such as parasites and bacteria related to the gastrointestinal tract. This can be passed from hands to the mouth, causing diseases of the stomach and intestines.
- Hospital waste is hazardous in terms of biological and chemical contamination including exposure to used syringes, dressings, discarded medicines and sometimes blood and organs as well. They are exposed to infections and disease-causing bacteria.

- Sharp objects can cause cuts which, in turn, may lead to tetanus or other infections.
- Waste provides an ideal habitat for disease carriers including flies, insects and rats.
- Waste in Bangalore is left out in the open, attracting stray animals. Waste workers often risk getting bitten causing rabies as well.

### **International Year of Sanitation - 2008**

The United Nations General Assembly decided to declare the years 2008 as the International Sanitation Year. As UN identified the importance of sanitation, public health, poverty reduction, economic and social development, and the environment are vital elements for the process of sustainable development. The General Assembly, through its Resolution No. 61/192 of 20/12/2006, urged all UN member countries to concentrate on sanitation awareness and community participation. It was decided to promote action at all levels, taking into account the recommendations of CSD-13.

After going through all available information on rural sanitation at international, national, and other levels, the researcher found that there is a big gap of communication in the rural sanitation programmes. Because of lack of awareness on rural sanitation among rural stakeholders, many developmental problems are arising. Poor sanitation facilities are impeding the development process. To tackle these problems, first we need to focus on rural sanitation issues. The major problem in rural sanitation is lack of awareness and inadequate sensitization. With effective communication strategies, these problems can be tackled. The total sanitation campaign has been is mainly designed with awareness component in mind.

### **ENVIRONMENTALLY SAFE DISPOSAL**

Transporting and dumping trash at a city- or state-approved dump site is an important part of a sanitation worker's job description. A worker must make sure he follows protocol for dumping trash, or he might get fined or fired for improper disposal. Computers, monitors, DVD players, cell phones, batteries, paint, pesticides, brake fluid, household cleaners and gardening products are examples of things that contain hazardous materials and require specific dumping practices, according to wisp news in tamp bay. If a sanitation company or worker agrees to dump those materials, they must do it in a safe and environmentally friendly manner. Many municipalities operate separate drop-off centers for residents to dispose of electronics and hazardous chemicals.

### **INFECTIONS**

The modes of exposure for the various infections are as follows:

- The most common way is by hand-to-mouth contact during eating, drinking and smoking, or by wiping the face with contaminated hands or gloves or by licking splashes from the skin.

- By skin contact, through cuts, scratches or penetrating wounds, i.e., from discarded hypodermic needles. Certain organisms can enter the body through the surfaces of the eyes, nose and mouth.
- By breathing them in as dust, aerosol or mist. The infections commonly studied among this group of workers include leptospirosis, hepatitis and Helicobacter pylori infection.

### OBJECTIVES OF THE STUDY

- To study the nature of job of the sanitary workers.
- To study the working condition of sanitary workers.
- To study the socio –economic conditions of sanitary workers in Lions Town area.
- To study about health problem in sanitary workers.

### REVIEW OF LITRATURE

**Sherin et al. (2017)**,The sanitation workers at Sengulam Colony at Tiruchirappalli comprises the universe for the present study. The data were collected from sixty respondents through purposive sampling technique. A self-prepared interview schedule was used to collect the data from the respondents. The findings revealed that 63 per cent were harassed by theirsupervisors.55% reported that they have experienced discrimination in the society.68 per cent consumealcohol.70 per cent had several health issues such as gastrointestinal diseases, orthopedic, skin related issues, asthma. Providing special medical camps, safety measures and strong welfare schemes is the only source to improve their quality of life. Lack of sanitation workers in a society, higher would be the level of diseases and mortality.

**France Ncube et al. (2016)**,The study found high mean exposure concentrations for total dust, Gram-negative bacteria (GNB) and fungi for personal samples collected from refuse bin loaders and for truck cabin samples. This suggests the priority for exposure assessment with regard to total dust and bio aerosols should be focused on waste loaders and the truck cabins. Also, we observed mean summer temperatures higher than 33Cinmost waste management areas and workers complained of headaches, sunburn, heat stress, excessive sweating, dehydration, and difficulties in concentration in assigned tasks. Consequently our study argues that in tropical countries it is better to perform summer waste collection services in early morning hours or at night when temperatures are cooler. Our study concludes that municipal solid waste workers are exposed to diverse toxic, mechanical and infectious.

**“Beginning of the end” (2010), Economic and Political Weekly, 45 (47)**, This editorial section recognizes manual scavenging as the worst form of un touchability under which specific communities are forced to carry excreta, clean dry latrines and sewers. It highlights Indian railways

as one of the larger employers of manual scavenger. It points out that often, it is incorrectly argued that economic development itself accelerates modernization which would lead to eradicate the practice of manual scavenging.

### METHODOLOGY

The methodology adopted for the present investigation including selection of the sanitary workers and objectives of the study together with source of data, sample, selection, period of study, scope and significance of the study and statistical tools used for data analysis. The research work depends, mainly on primary data collected through survey, personal interviews and questionnaire. The use of secondary data to a limited extent is made wherever necessary. Primary data is collected through questionnaire, observation and discussions. The sample consisted of 150 sanitary workers selected systematically 100 respondents from permanent workers 50 respondents from temporary workers the geographic areas in Lions Town area. The data was collected by personal interview using structured questionnaire.

### ANALYSIS OF DATA

**Table:1 Gender wise Classification of Sanitary Workers**

S. No.	Gender	Permanent Workers	Temporary Workers	Total	Percentage%
1.	Male	57	29	86	57%
2.	Female	43	21	64	43%
	<b>Total</b>	100	50	150	100

**Source: Primary data**

The above table explains Gender of the respondents. 57% of the respondents are male.43% of the respondents are female.

**Table:2 Educational Qualification Wise Classification of Sanitary Workers**

S.No.	Educational qualification	Permanent worker	Temporary workers	Total	Percentage%
1	Illiterate	41	24	65	43
2	Primary Education	27	13	40	27

3	Middle school	14	9	23	15
4	High school	10	4	14	10
5	Higher secondary	8	-	8	5
	Total	100	50	150	100

**Source: Primary data**

It is clearly evident from the table 2 represents educational levels of the respondents. 43% of the respondents are illiterate, 27% of the respondents are primary education, 15% of the respondents are middle school, 10% of the respondents are high school and 5% of the respondents are Higher secondary.

**Table: 3 Community Wise Classification of Sanitary Workers**

S. No.	Community	Permanent workers	Temporary workers	Total	Percentage (%)
1	ST	47	26	73	49
2	SC	48	23	71	47
3	BC	5	1	6	4
4	MBC	-	-	-	-
	<b>Total</b>	100	50	150	100

**Source: Primary data**

The above table explains the community wise classification of the sanitary workers. 49% of the respondents are ST community, 47% of the sample respondents are SC and 4% of the sample respondents are BC community.

**Table: 4 Appointment of Sanitary Workers**

S. No.	Appointment of sanitary workers	Permanent workers	Temporary workers	Total	Percentage %
1	Municipality	100	–	100	67

2	Contractor	–	27	27	18
3	SHG/NGO	–	23	23	15
	<b>Total</b>	100	50	150	100

**Source: Primary data**

The above table explains about appointment of sanitary workers. 67% of the sample respondents are working in under municipality, 18% of the sample respondents are working in under contractor and 15% of respondents are working under the SHG/NGO.

**Table: 5 Number of Hours Work in a Day**

S. No.	Number of hours work in a day	Permanent workers	Temporary workers	Total	Percentage %
1	7 - 8 hours	47	28	75	50
2	9 – 10 hours	33	19	52	35
3	More than 10 hours	20	3	23	15
	<b>Total</b>	100	50	150	100

**Source: Primary data**

The above table explains working hours in a day. 50% of the sample respondents working in a day 7-8 hours, 35% of the sample respondents their working hour is 9-10 hours and 15% of the respondents working in a day above 10 hours.

**Table:6 Nature of Work Performed by Sanitary Workers**

S.No.	Kind of Work	Total Score	Average score	Rank
1.	Sewage Cleaning	16494	54.98	IV
2.	Street Sweeping	20081	66.94	I
3.	Waste Collection From door to door	16887	56.29	III
4.	Septic tank	14148	47.16	V

	cleaning			
5.	Sewage removal	11159	37.19	VI
6.	Disposal dead animals	18115	60.38	II

**Source: Primary data**

It is clear from the table 8 that majority of the permanent sanitary workers have given the I rank to street sweeping, the second rank was given in the Disposal dead animals, III rank was given in the waste collection from door to door, IV rank was given in the Sewage cleaning, V rank was given in the Septic tank cleaning and VI rank was given in the sewage removal.

**Table:8HealthProblem in Sanitary Workers after Completion of Work**

S.No.	Type of diseases	No of Respondents	Percentage %
1.	Headache	25	16.6
2.	Allergies	20	13.3
3.	Stomach Pain	15	10
4.	Asthma	20	13.3
5.	Cough& Cold	25	16.6
6.	Vomiting	20	13.3
7.	Fever	15	10
8.	Typhoid	5	3.3
9.	Malaria	5	3.3
	<b>Total</b>	<b>150</b>	<b>100</b>

**Source: Primary data**

The above table explains health problem affect the sanitary workers. 16.6% of the sample respondents are affected in the headache, 13.3% of the respondents are affected in allergies, 10% of the respondents are affected in stomach pain, 13.3% of the respondents are affected in cough & cold, 13.3% of the respondents are affected in vomiting, 10% of the respondents are affected in fever, 3.3% of the sample respondents are affected in typhoid and also 3.3% of the respondents are affected in

## FINDINGS, SUGGESTION AND CONCLUSION

### FINDINGS

- ❖ Majority 57% of the sample respondents are male,43% of the sample respondents are female.
- ❖ Most of the respondents are Illiterate, and 27% of the sample respondents are primary level.
- ❖ In the present study 49% of the respondents are ST, and 47% of the respondents are SC.
- ❖ Majority 67% of the sample respondent's appointed by municipality, 18% of the respondent's appointed by Contractor, 15% of the respondent's appointed by SHG/NGO.
- ❖ Majority 50% of the workers working in per day 7-8 hours, 35% of the workers working in per day 9-10 hours.
- ❖ Waste collection from door by door and sewage removal is the next important kind of work doing by the sanitary workers.
- ❖ Majority of the sanitary workers affected by headache and cough & cold, 13.3% of the respondents are affected by Allergies and vomiting.

### SUGGESTIONS

- ❖ Special medical assistance may be given to the sanitary workers which may be useful to improve their health condition.
- ❖ The sanitary workers should be aware of legal protection. For that they may be allowed to attend legal awareness camps.
- ❖ The government should provide loan with low rate of interest for meeting the family expenses which could be deducted from their salary because the private loans carry high rate of interest.
- ❖ Government may provide opportunities for their children to get admitted in the educational institutions for getting the higher education.
- ❖ Government must provide equipment and mechanical devices for removing the garbage and for cleaning the sewerages.
- ❖ The working conditions of the Sweepers and Scavengers, which constitute the most vulnerable section of people of Scheduled Castes, continue to remain poor.
- ❖ The practice of carrying head loads of night - soil though tried to remove but prevalent in some areas. This practice not only creates insanitation in the areas but is also one of the main reasons for continuation in the practice of untouchability.

### CONCLUSION

The findings reveal the nature of work done by the sanitary workers. The study also shows the

working conditions of the sanitary workers. The problems in work place can be solved by providing equal rights like other government employees. Discrimination and stigmatization in work place and society reveals the steps to be taken by the government to uplift the sanitary workers socially. Uplifting the under privileged in terms of education, rights, power and employment will improve the status of the sanitary workers.

Providing safety measures for sanitation workers, conducting regular medical camps, prevention of manual scavenging, creating awareness about government schemes will definitely improve the quality of life of the sanitary worker. According to their salary they felt they could not meet their basic needs. So the government should provide proper welfare facilities such as health insurance, travel allowance, uniform, concession rates for food in the canteen and rest room should be established and strengthened. And training programmes should be conducted at frequent intervals with respect to the precautionary measures to be taken to prevent infectious diseases. It concludes that every workers wants motivation and satisfaction in their work so the government should established counseling unit in their work place to provide the counseling to improve their job satisfaction. The findings revealed that sanitation workers undergo several problems both physically and mentally. The problems in work place can be solved by providing equal rights as other government employees.

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**PERSONAL SAFETY TIPS FOR WOMEN ON CAMPUS****Dr.G.AMUTHA RANJINI**

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**ABSTRACT**

Campus can begin to feel like its own little private world and live there every day. All women should take some type of self defense class that allows practicing defending and escaping an assailant. One in four female students is sexually assaulted on campus and nine out of ten victims knew their assaulter. A student must feel comfortable and safe at his or her college campus. All colleges do their best to keep campus housing a safe area, but there are still general safety tips that the child must remain aware of. Several factors and critical situations lead to safety and risk management within a diverse campus environment. The University Grants Commission (UGC) has stepped up its efforts to ensure security of girls and women on campuses across the country.

**INTRODUCTION**

Campus can begin to feel like its own little private world and live there every day. All women should take some type of self defense class that allows practicing defending and escaping an assailant. Remember to always walk in well-lit areas and if you feel like you are being followed, reroute to the closest public place. The campus includes the geographic confines of the university, including its land, institutional roads and buildings, its leased premises, common areas at least premises, the property, facilities and leased premises of organizations affiliated with the university, such as the Memorial Union, university housing, and university-recognized housing. University housing includes all types of university residence housing such as halls and apartments.

**CAMPUS SAFETY TIPS**

- A student must feel comfortable and safe at his or her college campus. If not, this will likely lead to poor academic performance and decreased social activity.
- Avoid walking alone around campus, especially at night. When walking alone, it's important to remain alert, walk in well-lit areas and keep your arms and hands free.
- Be wary of intruder when entering and exiting vehicles. When inside the car, always keep the doors locked and the windows rolled up. Stick to main, well-traveled roads and only park in lighted areas.
- All colleges do their best to keep campus housing a safe area, but there are still general safety tips that the child must remain aware of.
- Check to make sure that all campus housing areas are well lit. Never loan out or duplicate a room key or key card. Keep doors securely locked at all times. Always use caution when allowing strangers into the dorm or room.

**CAMPUS SAFETY TIPS FOR FEMALE STUDENTS**

Sexual assault on female students is a main issue of concern on college campuses across the nation. One in four female students is sexually assaulted on campus and nine out of ten victims knew their assaulter. To avoid being a victim of sexual assault, female students should:

- Remain aware of their surroundings and carry mace or pepper spray at all times. Even better, female students could take a self-defense class before starting college.
- Before spending time alone with a male friend, get to know him first and always let a friend know when you are going on a date.
- When going out to a party or other social event, always travel in groups.
- The issue of women's safety on campus was recently spotlighted to encourage all schools from elementary through college level to raise awareness of women's safety issues.
- New federal guidelines were issued specifically to help universities and schools "End the Cycle of Sexual Violence" on campuses.

**SAFER CAMPUSES FOR EVERYONE****Campus Safety Concerns**

Several factors and critical situations lead to safety and risk management within a diverse campus environment. These include:

**1. Isolation**

By reducing the number of isolated spots on a campus, people are less likely to fear being attacked or assaulted in deserted areas. This measure also reduces the opportunity for criminal or violent activity to occur without being seen, heard or interrupted by witnesses.

**2. Lighting**

Good lighting can be a deterrent for criminal activity. If the lighting of a space is adequate, people can survey their surroundings and take precautionary action, if necessary.

**3. Accessibility**

Accessible spaces enable people to move about freely and reduce their vulnerability to entrapment and violence. Accessible spaces are more inclusive and can remove barriers to participating in regular activities of work, recreation, community programs, and education, for children, seniors, and people with disabilities.

**4. Signage and Layout**

Surroundings with clearly visible signs and a simple, easy to follow layout, can reduce

confusion and disorientation. A person who knows her/his whereabouts is less conspicuous and less likely to feel and be more vulnerable to violence.

## 5. Sightlines

People who can see clearly what lies ahead and/or behind their path have a better chance of anticipating problems and taking evasive action. Unobstructed views can reduce fear of the unexpected. Objects such as pillars, walls, shrubs, sharp corners, fences, and landscaped hills can block sightlines and create fear by decreasing casual surveillance and increasing the potential for surprise.

## 6. Maintenance

Proper maintenance of security systems can increase the ability to prevent and deal with unsafe situations. Well-maintained spaces and lighting can increase opportunities for surveillance, and can reduce incidents of violence.

## 7. Attitudes and Behaviours

People's attitudes and behaviours can affect the comfort and safety of a space. Discriminatory actions such as homophobic slurs, name-calling and gay bashing can create feelings of fear for everyone. By having clear policies, interventions, and consequences for dealing with discriminatory attitudes and behaviours, institutions can set appropriate standards for members of the community that can result in more respectful and equitable environments

## 8. Practices and Policies

Safety is impacted by an area's rules or patterns of activity, such as when a place opens or closes and when lights are turned on and off. Practices and policies can benefit some while creating hardship for others. Practices and policies of an institution can create safer environments by fostering a sense of belonging, and by removing barriers to safety for vulnerable groups of people, even if those practices and policies may seem neutral on the surface.

### HAVE A PLAN TO SAFE INSIDE THE CAMPUS

Make sure you know where you're going and how to get there. A little planning can keep you out of harm's way so you can enjoy exploring the campus or heading into town.

**Walk with confidence** and avoid looking confused, even when you're trying to navigate a new location.

**Make arrangements to get home safely** if you're going to a party.

- **Don't use headphones** or bury your nose in your phone—especially if you're unsure about where you're going.

- **Download your campus map** and use GPS to find popular, highly trafficked routes to get to your destination.
- **Avoid walking along deserted paths.** When in doubt, stick to the routes you know best—even if they take a little longer.

### **UGC TO ENSURE WOMEN’S SAFETY ON CAMPUS**

The UGC has asked universities and institutions of higher education to review seriously the security arrangements for girls and women on campuses and ensure a safe working environment for women employees, writes G. KRISHNAKUMAR. The University Grants Commission (UGC) has stepped up its efforts to ensure security of girls and women on campuses across the country. The move is part of the initiatives being taken by the government and other monitoring agencies to provide security to women after the brutal gang-rape of a 23-year-old student in New Delhi, who died in a Singapore hospital subsequently.

UGC Chairman Ved Prakash said education played a crucial role in promoting the egalitarian commitments of equality and justice enshrined in the Constitution. It was integral to processes that engender and expand horizons of opportunity for all disadvantaged and marginalized groups, including women. In a recent order, the Chairman said the commission would strive to ensure zero tolerance of harassment, of any kind, of girls and women on campuses. With the help of the leaders of all educational institutions, the UGC would make concerted efforts to help institutions put in place a responsive mechanism focusing not only on careful supervision but also on educational interventions, counseling and quick redress.

Educational institutions have been directed to review seriously the security arrangements for girls and women on their campuses. The terms of reference of the task force constituted by the UGC include analyzing and assessing the extent to which the existing arrangements for safety of women, both students and employees in particular, and youth in general, are adequate on the campuses of the institutions and to identify shortcomings in the existing system and to suggest measures to put in place strong safeguards. The task force will evaluate a grievance redress-mechanism for gender-specific concerns and to suggest measures to strengthen them, besides suggesting academic measures and action programmes to bring about changes in practices and attitudes within society towards recognizing the fundamental right to gender equality. The commission has asked the task force to suggest how gender education and sensitization can be made an integral part of the university curriculum in all subject domains and to suggest how awareness of gender sensitive issues be made an essential eligibility criterion in the future recruitment of university staff, both teaching as well as non-

teaching. The task force will visit campuses to evaluate the safety arrangements for girls and women before submitting a report on possible improvements and gender sensitivity programmes. The report is expected to be ready by mid-March.

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**INDUSTRIAL POLLUTION AND HEALTH IMPACTS ON THE  
PEOPLE OF MUTHAIAHPURAM TOWN IN THOOTHUKUDI DISTRICT**

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Thoothukudi, Tamil Nadu, India.

## **INTRODUCTION**

Pollution is the introduction of contaminants into the natural environment that cause adverse change pollution can take the form of chemicals substance or energy, such as noise, heat or light. Pollutants, the components of pollution, can be either foreign substance energies or naturally occurring contaminants pollution is often classed as point source or nonpoint source pollution in 2015, pollution killed 9million people in the world. Thoothukudi is an industrial town located between latitude 8°15' to 9°0' N and longitudes 77°50' to 78°15' E in Gulf of Manner. This coast is sheltered by Sri Lanka. The population of Thoothukudi town is approximately 16 lakhs. A few major and minor industries are in and around its coast.

## **TYPES OF INDUSTRIAL POLLUTION**

Major forms of pollution include: Air pollution, light pollution, littering, noise pollution, plastic pollution, soil contamination, radioactive contamination, thermal pollution, water pollution, visual pollution.

### **Industrial pollution**

Industrial pollution is generally referred to the undesirable outcome when factories (or other industrial plants) emit harmful by-products and waste into the environment to air or water bodies (water pollution), deposition on landfills etc. (land pollution or emission of toxic chemicals into the atmosphere (air pollution). Many industrial manufacturing processes use to produce chemicals' that may people's health or the environment. Instance, paper pulp bleaching uses chlorine while power generation using coal creates acid rain. Although factory chimneys producing black smoke are rare in most industrial nations these days invisible pollutants may enter the air ground, or surface water. Even at low level, they cause harm particularly in the long term. Environmental law now enquires industry to take more responsibility for any emissions that could harm the environment. Outgoing independent monitoring of the air and water supply are necessary to check for any breaches of legislation cleaner technologies, including green chemistry, can reduce production pollution their source. However, there

is still a legacy of industrial pollution from the past with contamination sites that have residues of long-lasting chemicals such as polychlorinated or PCBs which were once very widely used. Pollution generally refers to a change that is harmful to the environment. A typical example might be discharge of chlorine-containing organic solvents from a factory pipe into a river. Industrial pollution on a large-scale began with the industrial revolution of the nineteenth century, when factories emitting dirty smoke were a sign of growing prosperity. Soot and acid rain deposition towns and cities were common, and few were aware of their impact on human health and environment.

### **CAUSES OF INDUSTRIAL POLLUTION**

Primary causes industrial pollution. Industrial pollution is the release of wastes and pollutants generated by industrial activities into the natural environments including air, water, and additionally, industrial pollution is linked to the degradation of the natural environment

#### **Air pollution**

Air pollution occurs when harmful or excessive quantities of substance including gases, particles, and biological molecules are introduced into earth's atmosphere. It may cause diseases, allergies and even death to humans, it may also cause harm to other living organisms such as animals and food crops and may damage the natural or built environment. Both human activity and natural processes can generate air pollution.

Indoor air pollution and poor urban air quality are listed as two of the world's worst toxic pollution problems in the 2008 blacksmith institute world's worst polluted places report. According to the 2014 world health organization report, air pollution in 2012 caused the deaths of around 7million people worldwide, an estimate roughly echoed by one from the international energy

The environmental awareness and activities have increased only after the Bhopal tragedy (1984), which made the pathway for the creating environmental Act in 1986, and the act was enshrined in the 42<sup>nd</sup> amendments to country constitution in 1976. The Ministry of Environment and Forest (MOEF) tasked with the overall responsibility for administering and enforcing laws and policy, by adopting integrated environmental strategies into any development plan for the country. As such, the reduction of industrial pollution has become the main responsibility of MOEF. Clean air is the foremost requirement to sustain healthy lives of humankind and those of the supporting ecosystems which in return affect the human wellbeing. Release of various gaseous emissions and particulate matter (PM) has been on the rise due to rampant industrialized growth Anthropogenic emissions of various kinds are being pumped into the atmosphere (called primary pollutants) and lead to the formation of new pollutants due to chemical reactions in the atmosphere (called secondary pollutants).

These are building up the concern of ambient air pollution (AAP) as a prominent global threat to human health in many ways. For instance, according to the Fifth Assessment Report of the IPCC ‘nearly all the non-CO<sub>2</sub> climate-altering pollutants are health damaging, either directly or by contributing to secondary pollutants in the atmosphere’.

The UN General Assembly's Open Working Group (OWG) on Sustainable Development Goals forwarded to the Assembly its proposal for a set of goals that consider economic, social and environmental dimensions to improve people's lives and protect the planet for future generations at the conclusion of the Group's thirteenth and final session at UN Headquarters on 19 July 2014. The proposal contains 17 goals with 169 targets covering a broad range of sustainable development issues, including ending poverty and hunger, improving health and education, making cities more sustainable, combating climate change, and protecting oceans and forests. The goal 3 “Ensure healthy lives and promote well-being for all at all ages” aims at securing a healthy life for all. There are 9 sub-goals to this goal and sub-goal 3.9 targets to substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination by 2030 It is essential that the hazardous impacts from environmental pollution are regularly reported and monitored. Of the various kinds of pollution, the air pollution has attracted high priority in respect of environmental regulation since the environmental damage due to such pollution mostly affects human well-being directly by way of adverse health effects on the population exposed to it.

Air quality has deteriorated in most large cities in India, a situation driven by population growth, industrialization and increased vehicle use. Integrated air quality management (AQM), which is an evaluation and monitoring tool, is a challenge to carry out in most developing countries because of the lack of information on sources of air pollution and insufficient ambient air monitoring data that is available in the public domain (TERI 2009). Urban air pollution is largely a result of combustion of fossil fuels that are used in transportation, power generation, industrial sector, and other economic activities. Household air pollution (HAP), also known as indoor air pollution (IAP), is a serious area of concern in rural spaces, as majority of this population continues to depend on traditional biomass for cooking and space heating and depend on kerosene or other liquid fuels for lighting, all of which are highly likely to lead to high levels of HAP. More than 70% of the population in India depends on traditional fuels (firewood, crop residue, cow dung, coal and lignite) for cooking and almost 32% depend on kerosene for lighting purposes. About 3 billion people in the world (more than 40% of the global population) rely on traditional biomass for the purpose of cooking and an estimated 500 million households rely on kerosene and similar for the purpose of lighting (WHO, 2015). In rural India, for

instance, only 11.4% of the households use LPG for cooking (Census 2011).

### **Air pollution in Thoothukudi**

The Central Pollution Control Board (CPCB) has put out an action plan to combat air pollution in Thoothukudi, the lone “non-attainment city” in the State under the National Clean Air Programmer.

### **Committee constituted**

A district-level monitoring committee has been formed which includes the District Collector, Municipal Commissioner, senior officers from Department of Environment and Forests, Urban development and Housing department, Transport department, Agricultural department, and Forest department and District administration. Officials at the Tamil Nadu Pollution Control Board said periodic reviews would be conducted to ensure the plan is followed.

### **ECONOMIC IMPACT OF AIR POLLUTION**

Framework of Analysis Industrial sector in Thoothukudi is one of the major productive and wealth creating. However, it remains as a major polluter, resulting in the degradation of the health of local population and reduction in property values. Pollution is defined as an undesirable state of the natural environment being contaminated with harmful substances because of hum all activities (Cognitive Science Laboratory: Princeton University 9). Air pollution is the contamination of the atmosphere by substances that, directly or indirectly, adversely affect human health or welfare. It results from human activities, both deliberate releases (as from smokestacks) and fugitive emissions (as dust blown from streets or fields), and from natural sources, alluding sea spray, volcanic emissions, pol/en, etc. (National Institute for the Environmental, Washington DC)

### **Air Pollution and Health: The Production Function Model**

Environmental pollution reduces people's wellbeing through the following way (1) Medical expenses associated with treating pollution-induced diseases including the opportunity cost of time spent for obtaining the treatment, (2) Lost wages (3) Defensive or averting expenditures associated with attempts to prevent pollution induced disease, (4) Changes in consumption pattern, (5) Disutility associated with the symptoms and lost opportunities due to diseases and (6) Changes in life expectancy or risk of pre-mature death. (Freeman, M, 1993). Therefore, the welfare los~ due to air pollution could be estimated in terms of increased morbid

### **Light Pollution**

Insects flying around night lights become too exhausted to feed and reproduce, causing their

populations to decline. Insects are primary food source for many predators (e.g., bats, birds, lizards, frogs). Altering the balances compromises the food chain. Bright lights disarm flying moths & other insects of their bat evasion system, tipping this evolutionary arms-race in favour of the predator. Bright lights confuse navigation along migratory routes. Declines in populations of moths, spiders, sparrows, and amphibians have been correlated with light pollution in the UK & elsewhere. Hatchlings of seed-eating as well as other birds need the protein from insects and spiders in their diet to survive. Insects are essential pollinators for many plants. Their decline leads to decline of many plant species – crops, shrubs and trees that provide habitat for many other species, ornamental plants, etc.

### **Noise pollution**

Noise pollution is unpleasant noise created by people or machines that can be annoying, distracting, intrusive, and/or physically painful. Noise pollution can come from outdoor sources, such as road traffic, jet planes, garbage trucks, construction equipment, manufacturing process, lawn mowers, leaf blowers, and indoor sources, including boom boxes, heating and air conditioning units, and metal chairs scraping on floors.

### **Soil contamination**

The soil belongs to the non-renewable sources in the scale of human lifetime. The soil degradation seems to be more and more serious problem for the future when the number of Earth inhabitants will increase sharply and will reach even up to 10 billions in 2050. OECD

Data presume that agricultural land must increase from current 40% on 50% of total land area to 2030, the inputs of nutrients into soils must be 3 times higher in 2050, the use of mineral fertilizers will be necessary and the fight against soil degradation must be more intensive (1). The food security depending on soil availability and fertility will be key factor for sustainable development of human society (2). The soil contamination belongs to one of the most serious degradation threats that are defined in European “Toward Thematic Strategy for Soil Protection” (3). The environmental contamination is problem actual worldwide; many contaminants were detected even in the ice of Antarctic area. Moreover, the soil is environment with “memory”, it means that contamination survives in the soil for many years

### **Thermal pollution**

The basic definition of water pollution is the deterioration of water quality as a result of any process that changes ambient water temperature. It is usually associated with the increase of water temperatures in a stream, lake, or ocean due to discharge of heated water from industrial process such as the generation of electricity from the thermal plants. However, this rise in the ambient water

temperature can also occur in stream where shading vegetation along the bank is removed or where sediments have made the water more turbid. Both effects allow more energy from the sun to be absorbed by the water thereby increase in temperature. Instance in which the effects of holder-than-normal water temperatures can be also observed.

### **Thermal pollution in Thoothukudi**

Activists and environmentalists fear that pollution which has been the scourge of Tuticorin city for decades may have taken a turn for the worse. Recently, Tuticorin stood 21st in a list of 94 polluted cities in the country identified by Central Pollution Control Board based on a five-year study ending in 2015. It was also the only city from the state on the list.

With heavy industries and thermal power stations mushrooming in the coastal city, many people working in the factories here prefer to reside in nearby Tirunelveli and spend hours shuttling to and from Tuticorin. Environmentalist M Krishnamurthy, who is among the prominent leaders spearheading the anti-Sterlite protests, expressed the need for a holistic study on the impact of environmental pollution in Tuticorin. “Most of the thermal power stations in the state are within a 14 km radius from the city centre. The extent of damage caused by industrialization is immeasurable,” he lamented. Krishnamurthy Observed that thermal power plants and industries in and around the city had caused immense damage to people’s health, natural resources, and environment and salt pans. “Polluting industries should be closed down or shifted at the earliest,” he said.

Activist Nithya and Jayaram suggested a three-stage approach to reduce the impact of air pollution. “Pollution becomes an issue when it is affecting the people. Industries should not be set up close to a place where there are residential localities or agriculture is taking place,” he said. Safety measures should be carried out after sighting the right place to reduce the impact of unavoidable effects. “It is no use carrying out safety measures after establishing a hazardous industry established in a thickly populated place,” he said. According to him next comes pollution control.

Stating that no industry could operate without polluting, he said that the problem worsened with the size of the factory. Controlling the chemical substances from being dispensed in the air and effectively converting them into usable by-products in another form (liquid or solid) was the next big step. “Pollution mitigation is the next stage. Despite all measures some particles will be discharged in the air. Industries should ensure that its effect is minimized. Shape of the chimney should be such that the suspended particles are dissolved and

become harmless when they reach the ground,” he said. He expressed the need for a thick green belt around the factory to filter them from affecting the common man.

The former District collector N Venkatesh said that the district administration was working on a project to improve the green cover to bring down the impact of air pollution. “Also, this year we have a target of 2.7 lakh trees to be planted across the district. Most of these saplings will be planted on government and waste land near industries and urban areas,” he added.

Government and private thermal power plants in the city accounted for a major share of its visible air pollution. Vishnu Mohan Rao, an expert on environment and power associated with a citizen consumer and civic action group said that the ministry of environment and forests had issued a notification to all thermal power plants to take measures to bring down emission to a large extent by 2022.

“One of the effective measures is installation of ‘flue gas desulphurisation’ in the plants. This method of absorbing sulphur and other chemical pollutants from getting discharged into the air is in implementation for close to 40 years. But not one thermal plant in India has it as it would cost Rs 300 crore to install it in a plant,” he said and added that the cost could go up based on the capacity of the plant.

He added that flue gas method also required a sizable share of energy generated by the plant to be operated. The expert also pressed for larger regional impact assessment to be conducted before establishing such plants as a futuristic solution. According to him, there was a need to monitor compliance by existing plants to check pollution as a solution to keep air pollution by thermal plants under check.

### **Water pollution**

Water is the most important chemical compound for the perpetuation of life on this planet. Water covers about 3/4th of the earth's surface, but only 3% of it is available for human use. Owing to the rapid industrialization on one side and exploding population on the other, seawater gets polluted. Seawater pollutant is a chemical substance present in it at the excessive levels capable of causing harm to living organisms. During the last few decades, several studies were carried out on the hydrology and biology of the coastal waters of Thoothukudi. Chaco et al. (1957) investigated the hydrographical parameters in relation to fisheries in Gulf of Manner 1. Freda et al. (1968) had undertaken the study on hydrograph and plankton logy of pearl banks. 2. Maracay et al. (1990) studied the hydro biological investigations with special reference to plankton production during the period of 1976-1985 in the

inshore waters of Thoothukudi. 3. Gamesman et al (1995) elaborated the iron and manganese concentrations in seawater, sediment and marine algae of this coast. The polluted seawater affects the ecological system. Though there are some reports available on hydrology and biology for the Thoothukudi coast, little attention has been paid to the status of physicochemical characteristics in the coastal waters of Thoothukudi. The present study covers details of impact of domestic sewage and industrial effluents on the physio-chemical characteristics of the Thoothukudi coastal seawater during July 2006 to July 2008.

Ground water in Vedanta Resources' Thoothukudi copper smelter contains heavy metals Exceeding limits for drinking water, the smelter was shut down in May under order of the Tamil Nadu government after 13 people died after coming under police fire during violent protests over alleged pollution. The Vedanta subsidiary that operates the Thoothukudi smelter did not immediately respond to an email seeking comment. Vedanta, owned by billionaire Anil Agarwal, has previously denied that the smelter is responsible for pollution and described the closure of the plant it had operated for more than 22 years as an "unfortunate development".

The analysis of ground water samples showed the presence of iron, lead, fluoride, Cadmium and nickel above the permissible limit for drinking water, Meghwal said, citing Information provided by the federal pollution regulator. Meghwal also said that a study by the Central Ground Water Board revealed that most ground water samples around the industrial area in Thoothukudi were contaminated. The study indicates that most of the ground water samples are contaminated with high TDS (totally dissolved solids) and heavy metals like lead, cadmium, chromium, manganese, iron and arsenic, which are beyond permissible limits,"

The groundwater in SIPCOT Industrial Area in Thoothukudi, which houses now-closed Sterlite Copper plant, is contaminated with high TDS and heavy metals like lead which are beyond permissible limits for drinking water, the Centre said on Monday.

In response to a question by Rajya Sabha MP from Tamil Nadu Shashikala Pushpa on whether steps have been taken to check the nature of groundwater in Thoothukudi in the Backdrop of anti-Sterlite agitation, the government said the Central Ground Water Board (CGWB) has carried out a study to ascertain the quality of groundwater in and around SIPCOT industrial area

The study indicates that most of the groundwater samples are contaminated with high TDS and heavy metals like Lead, Cadmium, Chromium, Manganese, Iron and Arsenic, which Are beyond permissible limits of BIS Standards for drinking water (IS:10500 of 2012) As per information received from the Central Pollution Control Board, the analysis of Groundwater samples, from the Sterlite

industrial unit, by the State Pollution Control Board, Shows the presence of Iron, Lead, Fluoride, Cadmium and Nickel.

The minister also said the Central & State Pollution Control Boards are controlling Industrial pollution under the provision of Water (Prevention and Control of Pollution), Act,1974. The statement by the minister assumes significance in the wake of assertions from Sterlite that it was in no way responsible for pollution in Thoothukudi. Sterlite Copper was closed in May following protests that turned violent resulting in the death of 13 people in police firing. Villagers in and around Sterlite have been demanding the closure of the plant alleging high levels of pollution and water contamination.

### **SCOPE OF THE STUDY**

Pollution is creating a large issue around the world; especially air pollution has its own impact on earth, because of its trans boundary. The increase of the industries, transportation, and urbanization are the major sources of air pollution. Now the situation is “zero pollution can be achieved only with zero production”. Therefore, it is very important to control the pollution from various sources, which can be done only through, the proper implementation of environmental protection act. Hence, the study confined only to the prevention and control of air pollution in industries in Thoothukudi.

### **OBJECTIVES OF THE STUDY**

- To study the socio-economic life of the respondents in Tuticorin town
- To evaluate, the implementation of healthcare services in Industries in Thoothukudi.
- To evaluate, prevention and control of air pollution in industries in muthiahpuram town in Thoothukudi.
- To analyse the problems of environment in the study area
- To study the respondents' behaviour on household sanitation and environmental hygiene practices in the study area.

### **STATEMENT OF THE PROBLEM**

The environment pollution is now assuming a dangerous proportion throughout the world and growing awareness is discernible to maintain economical balance for the future generations. Throughout the last quarter of this century, a global concern to protect environment witnessed to preserve our inalienable right to life. Environment pollution is the cause of modern technological development, rapid growth of industrialization and urbanization. Industries, automobiles, domestic wastages and indoor air pollution cause the pollution. Among the Sources, industries play a major role in polluting the air. Among the industries, chemical fertilizer, steel and cement industries are the major sources of air pollution. The control can be made only by each individual of the universe. In the

absence, the government has its own Responsibility to control pollution from various sources through proper implementation of environmental act. Hence, an attempt has been made to study the role of environment law and its implementation in preventing and controlling air pollution in industries in Thoothukudi.

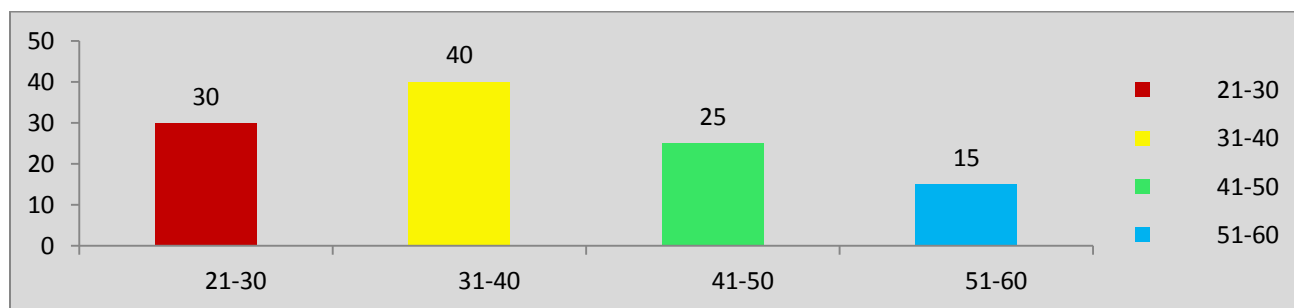
### ANALYSIS OF THE DATA

**Table: 1** Age Wise Classification of the Respondents

Age group	No.of. Respondents	Percentage
21-30	30	27
31-40	40	36
41-50	25	23
51-60	15	14
<b>Total</b>	<b>110</b>	<b>100</b>

**Sources:** primary data

The above table shows that 27% of the respondents are in the age group of 21-30 years, 36% of the respondents are in the age group of 31-40 years, 23 of the respondents are in the age group of 41-50 years, 14 of the respondents are in the age group 51-60 of years.



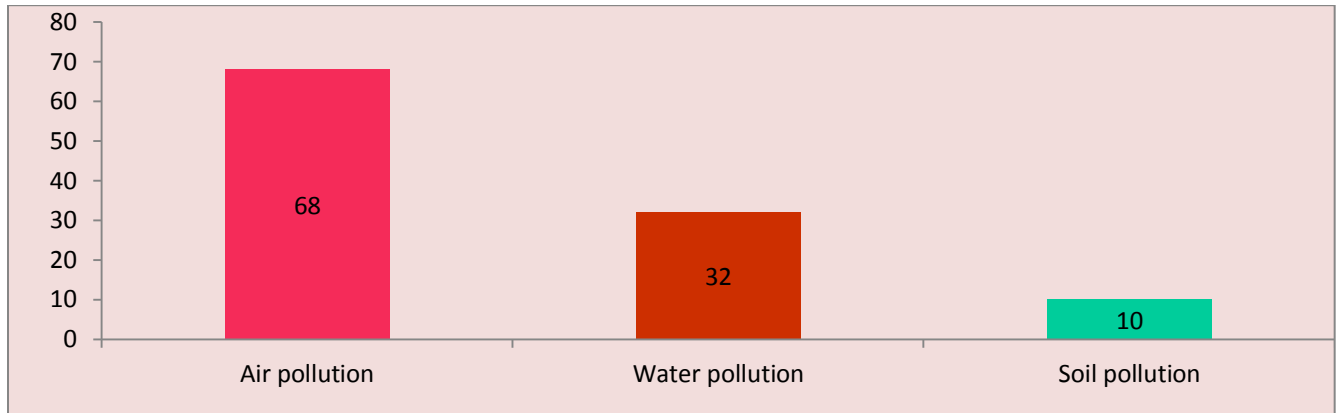
**Table: 2** Types of Pollution

Types of pollution	No.of. Respondents	Percentage
Air pollution	68	62
Water pollution	32	29
Soil pollution	10	9
<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

The above table shows that 62% of the respondents are air pollution and 29% respondents

are water pollution, 9% of the respondents are soil pollution.



**Table: 3Types of Sickness**

Types of sickness	No.of. Respondents	Percentage
Cancer	37	34
Asthmatics	24	21
Headache	12	11
Allergies	27	25
Stomach pain	10	9
<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

The above table shows that 34% of the respondents are cancer and 21% of the respondents are asthma, 11% of the respondents are headache, 25% of the respondents are allergies and 9% of the respondents are stomach pain.

**Table: 4 Medical Expenditure of the Respondent(in Rs)**

Medical expenditure	No.of. Respondents	Percentage
1000-2000	62	56
2000-3000	23	21
3000-4000	15	14
4000-5000	10	9
<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

The above table shows that 56% of the respondents are medical expenditure 1000-2000 and

21% of the respondents are 2000-3000 medical expenditure, 14% of the respondents are 3000-4000 medical expenditure, and 9% of the respondents are 4000-5000 medical expenditure.

## FINDINGS

- 1.The maximum numbers of the sample 36% of the respondents are in the age group of 31-40 years, and the minimum numbers of sample 14% of the respondents are in the age group 51-60.
- 2.The maximum numbers of the sample 62% of the respondents are air pollution, and the minimum numbers of sample 9% of the respondent's soil pollution.
3. The maximum numbers of the sample that 34% of the respondents are cancer, and the minimum numbers of the sample that 9% of the respondent's stomach pain.
4. The maximum numbers of the sample that 56% of the respondents are medical expenditure Rs 1000-2000 and the minimum numbers of the sample that 9% of the respondents are Rs 4000-5000 medical expenditure.

## SUGGESTIONS

- The prevention and control of industrial pollution are highly encouraged by governments worldwide. The U.S. government, for example, charges a carbon tax and subsidies alternative sources of energy, like solar power. Companies in certain industries are required to obtain pollution permits. Furthermore, organizations that decrease emissions below their specified rate earn emission reduction credits and other incentives.
- There are a couple of things every business can do to reduce its carbon footprint and protect the environment. If you own a small business, for example, you can purchase energy-efficient equipment for your organization and choose office supplies and other products made from recycled materials.
- Encourage the staff to use public transport or bicycles for their daily commute. Another option is to arrange for a bus to pick them up, so they don't have to drive to work and back home.
- Consider joining voluntary programs, such as the Environmental Protection Agency's Smart Way, to learn about the most effective industrial pollution control practices and how to implement them in your organization. Companies that enrolled in the EPA'S Smart Way saved 215.4 million barrels of oil and \$29.7 billion on fuel costs since 2004.
- Particular matter in the air can be reduced by fitting smokestacks to factories with electrostatic precipitators, fabric filters, scrubbers and inertial separators.
- Smoke can be reduced by using oil or gas instead of coal in factories.

- Machinery and equipment can be used, and generators should be fitted with silencers.
- Pollution check certificates should be made compulsory.
- Machineries used in the industries can be redesigned to increase energy efficiency and reduce noise. Noise absorbing material may also be used.
- Washing of animal cloths in the river should be banned.
- Solid waste such as plastic bags normally should not be thrown into the river.
- Industry should go for devices like wet scrubbers to reduce flash nuisance.
- Process industry can make use of fuel gases for neutralization of alkaline effluent.
- Industry should have increased the chimney heights.
- Solar heaters should be used for obtaining hot water.
- Avoid traffic jamming.
- Diverting of some traffic on outside roads.
- Proper maintenances of machines.

## CONCLUSION

This chapter summarizes the study and draws some major conclusions. The study provides several interesting findings which should be taken into consideration by academicians and policy makers. An important finding indicates that policy makers should note that the total pollution coefficients should be considered as alternative environmental management strategies and not just direct pollution coefficient. Water pollution abatement activities will have a significant impact on the Indian economy, leading to the expansion of output and increasing prices. While the increase in output is beneficial to the economy, consumers will be affected severely due to the price increase. Moreover, the industries will likely lose their competitive advantage due to the price rise of the outputs from both buyers and sellers end.

The pollution content in the foreign trade of India also reveals significant result. For an emerging economy like India, trade sector plays an important role in generating GDP and employment. The current attempt signifies that as the Indian economy is more export oriented after 1991 policy reforms, the exporting industries such as cotton textiles are of serious concern because an emphasis on export growth of cotton textile will likely to create more water pollution. Another important finding from the estimates of EDP due to water pollution shows a significant reduction in NDP due to the degradation of water resources. This study strongly suggests that if other natural resources could be accounted, then NDP reduction would be greater. Several policy options based on

command and control and economic instruments have been evaluated critically.

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**Impact of Online Studies during Covid-19****C.Girija**

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**Abstract**

As colleges and universities have shuttered their physical campuses in the face of the spread of COVID-19, they have moved their courses to remote and online formats in rapid fashion. And that's prompted many to wonder what the ultimate impact this period of time may have on online learning in higher education. Based on the present situation, where individuals come to stand on online learning will depend on where they sit currently. That is, there will be both positive and negative impacts on the state of online learning in higher education.

**Introduction**

The arrival of Covid-19 created panic as it spread rapidly across the globe. Students unaware of the danger of the spreading virus were overjoyed when the government declared leave for schools and colleges. But the teachers nor the students anticipated that corona would continue for more than a year. As days increased and lockdown was implemented in various nations across the world with corona still freely reigning in, the government decided to approve of online classes preventing the pandemic to affect education. Implementing online classes had its own benefits and demerits. Let us see in detail about the pandemic and its effects on education.

**Online Classes and its effects**

Neither colleges nor students were prepared for prolonged campus closures. Both face a variety of challenges going forward. Due to subsequent corona virus outbreaks, some institutions have already been forced to close a second time. Across the board, college leaders say plans for the coming semesters are written in pencil.

College students — most of whom are under 29 years of age — are among the least vulnerable to COVID-19. The China Center for Disease Control found that the COVID-19 fatality rate for the 10-

39 age bracket was just 0.2%. The coronavirus poses the greatest threat to older faculty and staff, nontraditional students, and those with immunodeficiencies.

In addition to protecting high-risk campus members, campus closures aimed to protect the local community. Before any students tested positive for COVID-19, models showed that college campuses could be hotbeds for virus transmission.

Schools' diverse and active populations number in the thousands, all living in close proximity to one another. And as the surge in college disciplinary action suggests, social distancing measures can be difficult to enforce.

Data shows a looser correlation between open campuses and rising case numbers than predicted. Some areas experienced short-term spikes in case numbers after the local campus welcomed students back. But counties with college campuses actually logged fewer new COVID-19 cases per day than counties without campuses.

Most campus closures were enacted out of an abundance of caution rather than in response to confirmed cases. Now, many colleges have set a hard limit for how many positive cases their campuses can support before shutting down again.

College students, already a vulnerable group in regard to mental health, have been profoundly destabilized by the pandemic. Surveys show a massive surge in stress and anxiety among students. For many, pandemic concerns revolve less around getting sick and more around the loss of grade points, college credits, and income.

### **Covid-19 impact on College Students**

- Nearly two-thirds of colleges were fully or primarily online in the fall.
- Student loan payments and fees remain frozen through September 2021.
- Record levels of depression and anxiety are hitting college students hard.
- Undergraduate enrollment fell 2.5% for fall 2020.
- Forty-two percent of students said staying motivated to do well once courses moved online was a major problem for them.
- Low-income students without internet access fall in the widening digital gap.
- Back on campus, thousands of students have been punished for breaking COVID-19 social distancing rules.

### **Student Anxious about Internet Access and Housing**

With Corona at its peak and educational institutions shifting to online classes, students went frenzy in search of electronic gadgets with which they could attend virtually. Most of the students did not have access to smartphones and computers/laptops. The poor could not afford such gadgets and it resulted in some suicides which forced the government to offer free smartphones and data to students of the poverty line. Students in rural areas often do not have adequate access to information and communication technology. Economically disadvantaged people and people living in rural areas often have limited access to digital technologies. Steady access to digital technologies is a precondition for online education. Students with limited access to digital technologies and students who are less knowledgeable about those technologies are facing problems in adapting to online education.

Further, the students who depended on institutions for their stay struggled to find a safeplace as educational institutions shut down owing to the spread of the virus. Some students live in houses that are not enough spacious and face problem in attending online classes at their homes

### **The Shift to Online Education has been accelerated**

The coronavirus pandemic has spurred the adoption of distance learning at all education levels. Thousands of colleges and universities, as well as hundreds of thousands of K-12 institutions, closed nationwide. The mass transition will be a proving ground for online education.

Until this year, colleges' shift online had been steady but slow. While student enrollment in online education increases year over year, the newest Best Colleges Online Education Trends Report found that more than half of the colleges surveyed did not plan to raise their online education budgets.

With the pandemic, schools rushed to fill gaps in their online infrastructures. Finding the money and experts to make those upgrades presented a hurdle, though. According to Melissa Venable, an online education advisor for Best Colleges, "There aren't enough instructional designers and other learning support specialists to go around right now. These offices have not been a priority at all colleges and universities."

If ad hoc digital solutions don't work for students and teachers, the experience could stymie online education's future growth. "This quick and mandatory shift may reinforce the most challenging aspects, leading some instructors to be less likely to adopt online education in the future," Venable said.

Ramping up online education under present circumstances may not be ideal, but as Venable notes, "The focus is not about experimenting with technology, but an emergency response." The digital systems that colleges build to support students now will outlast the coronavirus and inform the

digital approach to higher education going forward. Successes could even galvanize colleges to expand online offerings.

### **How online classes affect the student's eyes**

Education that requires equipment, materials, etc cannot be done at home, especially in a lockdown environment and the challenges of group working continue.

It is not a good idea for students to remain engaged with a screen for more than a few hours a day. Preference is important for the key things in education.

So, the legacy of this pandemic might just be one of hybridisation. With most schools and institutes understanding the evident value of online learning, they might consider a blend of this with their traditional off-line, in-person education to yield greater results for their students.

### **How is the education sector responding to COVID-19?**

In response to significant demand, many online learning platforms are offering free access to their services, including platforms like BYJU'S, a Bangalore-based educational technology and online tutoring firm founded in 2011, which is now the world's most highly valued edtech company. Since announcing free live classes on its Think and Learn app, BYJU's has seen a 200% increase in the number of new students using its product, according to Mrinal Mohit, the company's Chief Operating Officer.

Tencent classroom, meanwhile, has been used extensively since mid-February after the Chinese government instructed a quarter of a billion full-time students to resume their studies through online platforms. This resulted in the largest "online movement" in the history of education with approximately 730,000, or 81% of K-12 students, attending classes via the Tencent K-12 Online School in Wuhan.

Other companies are bolstering capabilities to provide a one-stop shop for teachers and students. For example, Lark, a Singapore-based collaboration suite initially developed by ByteDance as an internal tool to meet its own exponential growth, began offering teachers and students unlimited video conferencing time, auto-translation capabilities, real-time co-editing of project work, and smart calendar scheduling, amongst other features. To do so quickly and in a time of crisis, Lark ramped up its global server infrastructure and engineering capabilities to ensure reliable connectivity.

Alibaba's distance learning solution, DingTalk, had to prepare for a similar influx: "To support large-scale remote work, the platform tapped Alibaba Cloud to deploy more than 100,000 new cloud servers in just two hours last month – setting a new record for rapid capacity expansion," according to DingTalk CEO, Chen Hang.

Some school districts are forming unique partnerships, like the one between The Los Angeles Unified School District and PBS SoCal/KCET to offer local educational broadcasts, with separate channels focused on different ages, and a range of digital options. Media organizations such as the BBC are also powering virtual learning; Bitesize Daily, launched on 20 April, is offering 14 weeks of curriculum-based learning for kids across the UK with celebrities like Manchester City footballer Sergio Aguero teaching some of the content.

### **Factors driving India E-Learning Market**

1. Improvement in internet connectivity due to the low cost of 4G data.
2. Growth in smartphone penetration.
3. Online education cost is comparatively small compared to traditional programmes.
4. Favourable e-learning government policies such as e-Basta, SWAYAM and Digital India
5. Rising demand among working professionals due to the flexibility of time.

### **Traditional Learning vs Online Learning**

Without a doubt, one of the things that have always been labeled against online education is that the 'personal' touch or the classroom experience cannot be replicated. And this remains by and large true.

The online platform has driven students to be more switched on and attentive, as initially, a paradigm was broken and behaviours in class did not necessarily transfer to this new environment.

Classes could be interactive and didn't have to be one-way, as many people expected - with faculty using the different facilities like screen-share, chat, whiteboard, etc. to engage and entice students to converse between themselves and with the faculty to bring out enhanced learning experience.

In addition, the online space could allow students to further reach out to faculty individually with separate video calls and messages to clear doubt and clarify points.

### **Conclusion**

So, the legacy of this pandemic might just be one of hybridisation. With most schools and institutes understanding the evident value of online learning, they might consider a blend of this with their traditional off-line, in-person education to yield greater results for their students. Students get the best of both worlds with the internet helping connect them to resources from across the world and brings in many methods of learning which they can use at their convenience and also allows then the

off-line, human contact way to approach their professors and teachers to be able to have those heart-to-heart conversations that education should be made up of.

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## PERSONAL AND PSYCHOLOGICAL PROBLEMS OF COLLEGE STUDENTS Vs. TYPE OF FAMILY – A DESCRIPTIVE ANALYSIS

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### INTRODUCTION

Indian society is collectivistic and promotes social cohesion and interdependence. The traditional Indian joint family, which follows the same principles of collectivism, has proved itself to be an excellent resource for the care of the mentally ill. However, the society is changing with one of the most significant alterations being the disintegration of the joint family and the rise of nuclear and extended family system (Rakesh K. Chadda and Koushik Sinha Deb, 2013). Home is the most important informal agency of education. It is an agency which is responsible for imparting early education and laying down the basis of further education. In the words of Ballard, "Family is the original social institution, from which all other institutions have developed". A home has earlier been defined as a place of residence or refuge when it refers to a building. It is usually a place in which an individual or a family can live and store personal property (Magnuson, 2007).

The home environment means the family background of the students; this includes all the human and material resources present at the home that affects the student's education and living, such as the parent's level of education, their occupation, socio-economic status and socializing facilities available in the house. But today the family structure, the nuclear and joint family changed the attitude of college going students. Its nature and responsibilities affects the students psychologically and personally. So this is the need of the hour to identify the role family structure in the personal and psychological development of college going students.

### SIGNIFICANCE OF THE STUDY

The home environment for many young people represents a place of instability and emotional upheaval where security, caring, and nurturing are depleted or non-existent. Separation, divorce, death, or abandonment removes one or both parents from the family. The lack of attention and affection that may accompany such change adversely impacts children. Subsequent emotional and financial difficulties of a single parent household further strain the family dynamic. At an alarming rate, young people enter higher education with dysfunctional family backgrounds that evoke stress and trepidation in students.

Thus the family environment or family structure may affect the college going students personally and psychologically. Hence it is necessary to study role of family structure in the personal and psychological problems of the college students. The present study may answer the question Does the type of family create personal and psychological problems among the college students?.

### OBJECTIVES OF THE STUDY

- To find out whether there is any significant difference between the college students in personal problems of with respect to type of family.
- To find out whether there is any significant difference between the college students in psychological problems of with respect to type of family.

**NULL HYPOTHESES**

- There is no significant difference between the college students in personal problems of with respect to type of family.
- There is no significant difference between the college students in psychological problems of with respect to type of family.

**METHODOLOGY**

The investigator used descriptive method employing survey as a technique to study the personal and psychological problems of college students. The population selected for the survey was college students of the southern districts of Tamilnadu such as Kanyakumari, Tirunelveli, and Tuticorin. The investigators had drawn a sample of 1055 college students. Personal Problems Scale and Psychological Problems Scale developed and validated by A. JeyaSudha and S. Francisca (2015) was used for collecting data. The investigator had used ‘t’- test, for analysing the data.

**Null Hypothesis 1**

There is no significant difference between the college students in personal problems of with respect to type of family.

**TABLE:1  
DIFFERENCE BETWEEN THE COLLEGE STUDENTS IN PERSONAL PROBLEMS WITH RESPECT TO TYPE OF FAMILY**

Personal problems	Type of family	Count	Mean	S.D	t-Value	R
Financial problems	Nuclear	793	94.43	25.820	2.317	S  level of
	Joint	262	96.37	25.013		
Home related problems	Nuclear	793	70.21	23.814	4.199	
	Joint	262	75.74	22.995		
Society related problems	Nuclear	793	83.25	21.616	2.106	
	Joint	262	87.30	19.045		
Personal problems in total	Nuclear	793	282.82	57.710	2.634	
	Joint	262	293.87	62.199		

significance the table value of ‘t’ is 1.96)

From the above table it is evident that the calculated ‘t’ values for financial problems, home related problems, society related problems and the personal problems in total of college students are greater than the table value. Therefore the college students are significantly differ in financial problems, home related problems, society related problems and personal problems in total. Comparing the mean scores the students from joint families face greater personal problems than the students from nuclear families.

**Null Hypothesis 2**

There is no significant difference between the college students in psychological problems with respect to type of family.

**TABLE:2**  
**DIFFERENCE BETWEEN COLLEGE STUDENTS IN PSYCHOLOGICAL PROBLEMS**  
**WITH RESPECT TO TYPE OF FAMILY**

Psychological problems	Type of family	Count	Mean	S.D	t-Value	R
Anxiety	Nuclear	793	74.68	17.559	0.935	NS
	Joint	262	77.11	17.273		
Adjustment problems	Nuclear	793	87.09	19.638	0.469	
	Joint	262	89.95	20.767		
Stress	Nuclear	793	121.06	31.868	1.828	
	Joint	262	126.81	33.522		
Psychological problems in total	Nuclear	793	247.89	60.115	2.721	S
	Joint	262	259.41	57.232		

(at 5% level of significance the table value of 't' is 1.96)

It is evident from the above table that the calculated 't' value for psychological problems in total is greater than the table value. Therefore there is significant difference between the college students in psychological problems in total. Comparing the mean scores the students from joint family face greater personal problem than their counterparts.

The calculated 't' values for anxiety, adjustment problem and stress are lesser than the table value, therefore there is no significant difference between the college students in psychological problems with respect to type of family.

#### **INTERPRETATION**

The present study revealed that there is significant difference between the college students in personal problems with respect to type of family. Comparing the mean scores the students from joint families face greater personal problems than their counterparts. The present study drawn support from study of **Vaghela (2015)** states that adolescent girl students from nuclear families possess better social adjustment than the students of joint families.

Regarding the psychological problems there is significant difference between the college students in psychological problems in total with respect to type of family. Comparing the mean scores the students from joint families face greater psychological problems in total than their counterparts. In the 21st century life style of this generation has changed drastically. They seek virtual companionship rather than the support of family, friends and relatives. Thus they face lot of adjustment problems with previous and yester year generation in the joint family system. Also generation gaps may be the reason for personal and psychological problems in joint families than the nuclear families. The study of **Prabhu & Mohan (2014)** contradicted the present study reveals that the students living in nuclear families encounter moderate level of anxiety while majority of those living in a joint family set up seem to face low level of anxiety. At the same time it supports that, students from joint family experiencing moderate and high level of stress.

#### **CONCLUSION**

From the above results we can conclude that the type of family create personal and psychological

problems among the college students. Participants indicated that how the type of family creates personal and psychological problems among them. It is evident from the present study that overall family support is necessary not only for better educational outcomes, but also for the personal and psychological wellbeing of the college going students. The present study will provide decision makers and higher education managers with information about the role of type of family in the personal and psychological problems of college students. It will help them to enhance the college climate to get rid of personal and psychological problems. It is helpful to the parents to know about their college going children's problems and take possible steps for their better future.

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**INFLUENCE OF ACADEMIC ACHIEVEMENT BASED ON SOCIAL MEDIA, SOCIAL SKILLS AND HEALTH AWARENESS****Mrs. JULIET CAROLYN**

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**Abstract**

This study aims to investigate the Influence of Academic Achievement based on Social Media, Social Skills and Health Awareness among high school pupils and determine the relationships between certain population variables. A questionnaire contains a Social Media scale, Social Skills scale and Health Awareness scale were administered and given to the sample group of 150 high school pupils based on their Academic Achievement. The collected data were used to provide a descriptive analysis. The result of the analysis indicated that the Academic Achievement is in itself an Social Media, Social Skills and Health Awareness sources among high school pupils; however, it is the situations in which learners have to use the Internet that provoke Internet Social Media, Social Skills and Health Awareness. Furthermore, it was observed that factors such as gender, locality, studying class and information level on significantly differed with the level of variables. In the light of the findings of this study, some recommendations were noted.

*Keywords:* Academic Achievement, Social Media, Social Skills, Health Awareness, high school pupils.

**Introduction**

Now-a-days, social media usage is a major factor for people in shaping the new global environment and producing rapid change in society. Within the past decade, the new social applications have fundamentally changed the way people communicate and do their business. They have produced significant communication in education, industry, medicine, engineering, agriculture and other fields. In particularly, the social tools implement the remote teaching-learning process in education and make effective learning gives for students. The Social Media directly depends on the emotional state in which one perceive danger, feels powerless and experiences tension in preparation for an expected danger. The Social Skills is generally positive or negative views of a people place thing or event-this is often referred to as the Social Skills object people can also have conflict or

ambivalent toward an object, meaning that they and negative Social Skills towards the items in questions. The Health Awareness is an internal model of humans which comprises self-assessment or self-awareness of Academic Achievement methods. Features assessed include but are not limited to: abilities, skills and Personality, occupations and hobbies, etc. The Social Media creates the uneasiness feelings and worries of the people when they feel fear to use it. The Social Skills is the intensity of positive or negative effect as against to use its applications. The Health Awareness is a collection of beliefs about oneself.

### **Objectives of the study**

1. To study the level of significant difference in Social Media, Social Skills and Health Awareness among male and female high school pupils Academic Achievement.
2. To study the level of significant difference in Social Media, Social Skills and Health Awareness among rural and urban high school pupils Academic Achievement.
3. To study the level of significant difference in Social Media, Social Skills and Health Awareness among IX standard and X standard high school pupils Academic Achievement.

### **Null Hypotheses of the study**

1. There is no significant difference in Social Media, Social Skills and Health Awareness among male and female high school pupils Academic Achievement.
2. There is no significant difference in Social Media, Social Skills and Health Awareness among rural and urban high school pupils Academic Achievement.
3. There is no significant difference in Social Media, Social Skills and Health Awareness among IX standard and X standard high school pupils Academic Achievement.

### **Methodology of the study**

The sample for the present study consisted of 250 high school pupils (125 IX standard and 125 X standard) from five schools. The required data for the present study was collected by using the Social Media scale, Social Skills scale and Health Awareness scale developed by the investigator and K.C. Bindhu (2017)

In order to collect the data the investigator approached to the respondents in the schools through the headmasters of high schools in Vellore district. The investigator administered the inventory to 250 high school pupils (125 IX standard and 125 X standard) to assess their Academic Achievement based on Social Media, Social Skills and Health Awareness.

The collected data was subjected to the following statistical techniques as, Mean, Standard

Deviation and 't' test was used to find the significant difference between gender, locality and class of study for Academic Achievement based on Social Media, Social Skills and Health Awareness of high school pupils.

### Analysis and Interpretation of data

H<sub>0</sub> - 1: There is no significant difference in Social Media, Social Skills and Health Awareness among male and female high school pupils Academic Achievement.

**Table – 1.1**

**Showing the mean value, standard deviation and 't' value of Social Media, Social Skills and Health Awareness among male and female high school pupils Academic Achievement**

Usage of Internet	Male (N=110)		Female (N=140)		Calculated 't' value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Social Media	54.84	7.530	55.78	8.198	1.977	S
Social Skills	70.29	10.789	70.37	10.637	0.126	NS
Health Awareness	110.17	9.073	109.17	9.868	1.779	NS

Table value of 't' is 1.972 for df 148. NS – Not Significant, S - Significant

The above table (1.1) shows the mean comparison of male and female high school pupils Academic Achievement on the Social Media, Social Skills and Health Awareness. The calculated 't' value of Social Media which is (1.977) greater than the tabulated 't' value at 0.05 level of significance. Which indicates that there is significant difference in Social Media among male and female high school pupils Academic Achievement and there is no significant difference in Social Skills and Health Awareness among male and female high school pupils Academic Achievement.

H<sub>0</sub> - 2: There is no significant difference in Social Media, Social Skills and Health Awareness among IX standard and X standard high school pupils Academic Achievement.

**Table – 1.2**

**Showing the mean value, standard deviation and 't' value of Social Media, Social Skills and Health Awareness among IX standard and X standard high school pupils Academic Achievement**

Usage of Internet	XI standard (N=125)		XII standard (N=125)		Calculated 't' value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Social Media	55.66	7.845	54.80	7.784	1.857	NS
Social Skills	69.96	10.323	70.71	11.052	1.974	S

Health Awareness	109.14	9.555	110.02	9.546	1.553	NS
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Table value of 't' is 1.972 for df 148. NS – Not Significant, S - Significant

The above table (1.2) shows the mean comparison of male and female high school pupils Academic Achievement on the Social Media, Social Skills and Health Awareness. The calculated 't' value of Social Skills which is (1.974) greater than the tabulated 't' value at 0.05 level of significance. Which indicates that there is significant difference in Social Skills among IX standard and X standard high school pupils Academic Achievement and there is no significant difference in Social Media and Health Awareness among IX standard and X standard high school pupils Academic Achievement.

H<sub>0</sub> - 3: There is no significant difference in Social Media, Social Skills and Health Awareness among rural and urban high school pupils Academic Achievement.

**Table – 1.3**

**Showing the mean value, standard deviation and 't' value of Social Media, Social Skills and Health Awareness among rural and urban high school pupils Academic Achievement**

Usage of Internet	Rural (N=95)		Urban (N=155)		Calculated 't' value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Social Media	54.79	7.901	55.50	7.768	-1.482	NS
Social Skills	70.55	10.653	70.20	10.727	0.541	NS
Health Awareness	109.35	8.739	109.72	10.027	-0.666	NS

Table value of 't' is 1.972 for df 148. NS – Not Significant, S - Significant

The above table (1.3) shows the mean comparison of rural and urban high school pupils Academic Achievement on the Social Media, Social Skills and Health Awareness. The calculated 't' value of Social Media, Social Skills and Health Awareness which is less than the tabulated 't' value at 0.05 level of significance. Which indicates that there is no significant difference in Social Media, Social Skills and Health Awareness among rural and urban high school pupils Academic Achievement.

### Conclusion

1. It was found that there is significant difference in Social Media among male and female high school pupils Academic Achievement and there is no significant difference in Social Skills and Health Awareness among male and female high school pupils Academic Achievement. While comparing the mean score of Social Media, the female high school pupils have high Social Media to use the Internet application for their studies, playing, chatting and so on. While comparing the

- mean score of Social Skills, the male high school pupils have high Social Skills to use the Internet application for their necessity. While comparing the mean score of Health Awareness, the male high school pupils have high Health Awareness to use the Internet application for their education and other purpose.
2. It has been found that there is significant difference in Social Skills among IX standard and X standard high school pupils Academic Achievement and there is no significant difference in Social Media and Health Awareness among IX standard and X standard high school pupils Academic Achievement. While comparing the mean score of Social Media, the IX standard high school pupils have high Social Media to use the Internet application for their education and other purpose. While comparing the mean score of Social Skills, X standard high school pupils have high Social Skills to use the Internet application for their individual and group activity to improve their knowledge. While comparing the mean score of Health Awareness, the X standard high school pupils have high Health Awareness to use the Internet application for their development.
  3. It was also found that there is no significant difference in Social Media, Social Skills and Health Awareness among rural and urban high school pupils Academic Achievement. While comparing the mean score of Social Media, the urban high school pupils have high Social Media to use the Internet application. While comparing the mean score of Social Skills, rural high school pupils have high Social Skills to use the Internet application. While comparing the mean score of Health Awareness, the urban high school pupils have high Health Awareness to use the Internet application.

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**Abstract**

This study aims to investigate the professional development related to Information Technology among higher secondary school teachers and determine the relationships between certain population variables. A questionnaire, Professional development based on Information Technology scale was administered to a sample group of 150 higher secondary school teachers. The collected data were used to provide a descriptive and correlation analysis. The result of the analysis indicated that the Information Technology is in itself a professional development sources among highersecondary school teaches; however, it is the situations in which teaches have to use the technology that provoke professional development. Furthermore, it was observed that factors such as gender, locality and nature of school on the Information Technology significantly correlated with the level of variables. In the light of the findings of this study were noted.

*Keywords:* Information Technology, Professional Development, higher secondaryschool, teachers.

**Introduction**

Teacher Professional development is an essential if information technology provided to schools is to be used effectively. Simply put, spending scarce resources on information technology hardware and software without financing teacher professional development as well is wasteful. Experience around the world in developing, industrialized, and information- based countries has shown that teacher training in the use and application of technology is the key determining factor for improved student performance (in terms of both knowledge acquisition and skills development enabled by technology). Educational technology is not, and never will be, transformative on its own- it requires teachers who can integrate technology into the curriculum and use it to improve student learning. In other words, computers cannot replace teachers-teachers are the key to whether the technology is used appropriately and effectively. That said, designing and implementing successful teacher professional

development programs in the application of technology is neither easy nor inexpensive. There are more cases of inadequate and ineffective training programs than there are success stories. Moreover, success stories are not automatically transferable to other situations, and the total body of experience and knowledge in this field is in its infancy. While some people may know more than others in this area, there are few if any true experts. This calls for humility, innovation, a willingness to fail, ongoing evaluation, sharing of both positive and negative experiences, and constant revision of teacher professional development programs related to technology.

While technology increases teachers' training and professional development needs, it also offers part of the solution. Information Technology can improve pre service teacher training by providing access to more and better educational resources, offering multimedia simulations of good teaching practice, catalyzing teacher-to-trainee collaboration, and increasing productivity of non instructional tasks. Informational Technology also can enable in-service teacher professional development at a distance, asynchronous learning and individualized training opportunities. Finally, Information Technology can overcome teachers' isolation, breaking down their class room walls and connecting them to colleagues, mentors, curriculum experts, and the global teacher community.

### **Operational Definitions**

Before Information Technology can be used for teachers' professional development, teachers need face-to-face professional development in the use of technology. Teachers can develop enough knowledge and skills to participate successfully in technology-based distance learning activities.

### **Null Hypotheses**

1. There is no significant difference in professional development among male and female higher secondary school teachers.
2. There is no significant difference in professional development among rural and urban higher secondary teachers.
3. There is no significant difference in professional development among Private and government school higher secondary teachers.

### **Methodology**

The sample for the present study consisted of 150 higher secondary teachers (75 private and 75 government) from higher secondary schools. The data for the present study was collected by using the Continuous Professional Development relation to Information Technology scale by R. Kalaivani and Dr.K.C. Bindhu (2020)

In order to collect the data the investigator approached to the respondents in their schools through the headmasters of higher secondary schools in Coimbatore district. The investigator administered the inventory to 150 teachers (75 private and 75 government) to assess their Professional development towards Information Technology.

The data collected was subjected to the following statistical techniques as, Mean, Standard Deviation and 't' test was used to find the significant difference between gender, locality and nature of school on professional development based on Information Technology.

### Analysis and Interpretation of Data

**Table 1: mean, SD and t-value of Professional Development among Male and Female Higher Secondary School Teachers**

Information Technology	Male (N=60)		Female (N=90)		Calculated 't' value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Professional Development	55.78	8.198	54.84	7.530	1.977	Significant

Table value of 't' is 1.972 for df 148.

Table -1 shows that the mean comparison of male and female higher secondary school teachers professional development based on Information Technology. The calculated 't' value of professional development is 1.977 which is greater than the table value at 0.05 level of significance. This indicates that there is significant difference in professional development among male and female higher secondary school teachers.

**Table 2: mean, SD and t-value of Professional Development among Private and Government Higher Secondary School Teachers**

Information Technology	Private School (N=75)		Government School (N=75)		Calculated 't' value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Professional Development	55.66	7.845	54.80	7.784	1.857	Not Significant

Table value of 't' is 1.972 for df 148.

Table -2 shows that the mean comparison of private and government higher secondary school

teachers' professional development based on Information Technology. The calculated 't' value of professional development is 1.857 which is less than the table value at 0.05 level of significance. This indicates that there is no significant difference in professional development among rural and urban higher secondary teachers.

**Table 3: mean, SD and t-value of Professional Development among rural and urban Higher Secondary School Teachers**

Information Technology	Rural (N=95)		Urban (N=55)		Calculated 't' value	Remarks at 5% level
	Mean	S.D	Mean	S.D		
Professional Development	54.79	7.901	55.50	7.768	-1.482	Not Significant

Table value of 't' is 1.972 for df 148

Table -3 shows that the mean comparison of rural and urban higher secondary school teachers' professional development based on Information Technology. The calculated 't' value of professional development is -1.482, which is less than the table value at 0.05 level of significance. This indicates that there is no significant difference in professional development among Private and government school higher secondary teachers.

## CONCLUSION

- It was found that there is significant difference in professional development among male and female higher secondary school teachers. While comparing the mean score of professional development based on Information Technology, the male higher secondary school teachers have high Information Technology used for their professional development.
- It has been found that there is no significant difference in professional development among rural and urban higher secondary teachers. While comparing the mean score of professional development on Information Technology, private school teachers have high Information Technology for their education and other purpose with their professional development.
- It was also found that there is no significant difference in professional development among Private and government school higher secondary teachers. While comparing the mean score the urban school teachers have high professional development based on Information Technology.

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## A STUDY ON INFLUENCE OF EMI PAYMENTS ON SALES OF SATHYA AGENCIES IN SUBBIAH MUTHALIYAR PURAM OF THOOTHUKUDI DISTRICT

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### **Abstract**

An equated monthly installment (EMI) is a fixed payment amount made by a borrower to a lender at a specified date each calendar month. Equated monthly installments are used to pay off both interest and principal each month so that over a specified number of years, the loan is paid off in full. With most common types of loans, such as real estate mortgages, the borrower makes fixed periodic payments to the lender over the course of several years with the goal of retiring the loan.

**Keywords:** EMI,HDFC , PAN Card, Credit Card ,Aadhar Card , Installment

### **INTRODUCTION**

An equated monthly installment (EMI) is a method of paying the total amount in small installments which are called as equated monthly installments are used to pay both interest and principal each month over several years; the loan is paid off in full. A consumer durable loan is a finance option for the purchase of household appliances, electronic goods, automobiles, furniture, jewellery, and sporting goods. Lenders check your annual income and credit history of the individual and lend the loan. Since consumer durable loans are unsecured loans, lenders particularly look at your repayment history and CIBIL Score (Credit Information Bureau India Limited). It is advisable to check your CIBIL Score on a regular basis and make sure there are no errors and the overall report looks positive to the lender. Documents that are required to seek a consumer durable loan vary from lender to lender. Generally, the list of documents includes: Identity proofs such as PAN Card, Voter's ID, Aadhar Card etc and Address proof such as Passport, Driver's License, and Electricity Bill. Consumer durable loans generally have flexible period for paying back ranging from 8 to 36 months. Bajaj electronics is a platform that offers home appliances and electronic gadgets of various companies for sale. Customers can buy on cash basis and financing facility is available inside the store for giving consumer durable loan offered by four companies. They are – Bajaj finserv, Capital first, Tata capital, HDFC.

### **REVIEW OF LITERATURE**

**The world report 2004**, 70% of the total cars sold in the country were through the channels of finance companies. According to him, the car finance market has increased at a CAGR of 20% over the last four years to over 25,000 crores in 2003-04. The percentage in respect of 2-wheelers was 40-45% in the year 2004 through finance companies. The 2-wheelers sales grew at a CAGR of over 30% in the last four years, in the year 2003-04, nearly 5 million 2-wheelers were sold.

**Karlapudi Ramesh Babu (2018)**, According to the study conducted on the topic Indian Banking Development – Challenges & Prospects by the Karlapudi Ramesh Babu explains us the competition among the banks in India is strong, with the situation where it is dominated by government banks. Market entry for the new banks at the country level is very tough for new players due to the highly moderately consolidated nature of the industry and extremely high competition.

### **Features of the following companies**

Sathya agencies (data taken from the company website) Loans up to Rs. 4 lakhs get a loan up to Rs. 4 lakhs to buy the latest electronics on easy EMIs only on the EMI Network. It provides flexible EMI period. When you buy something on the EMI Network, you can choose a repayment tenor that fits your budget the best, up to a maximum of 24 months. EMI Card the Bajaj Finserv EMI Card helps you buy the latest electronics on easy EMIs with a simple swipe. Instant approval waiting for days to get an approval is a thing of the past. Fill an online form or talking in-store with representatives for instant loan approval. Nil foreclosure charges if you choose to foreclose your loan any time after the first EMI is paid, you can do so without any additional charges. Minimal documents required. The documents required to buy electronics on the EMI Network are minimal. They include an address proof, a photo ID, a photograph, and a cancelled cheque. Access to an online account for customers everything about your loan, from the amount due, payment schedule, interest certificates, is easily available online.

Features of capital first (data taken from the company website)

- Instant online approval in 2 minutes
- Maximum tenures of up to 36 months
- Get approval online, walk in to the store and walk out with the product
- 0% Interest Charges and Minimal Documentation Features of Tata capital first (data taken from the company website)
- On-spot approvals • 0% interest and minimal documentation • Enhanced loan limit up to Rs 5 lacs and tenure up to 36 months
- No hidden charges, NIL foreclosure charges

- Enhanced approved limits for applicants desirous of availing finance of Credit Life Insurance / Extra Warranty.

### **FEATURES OF HDFC (data taken from the company website)**

- Maximum possible finance
- Low interest rate
- Low processing fee
- Wide range of products is available for purchase. People can purchase products that they cannot afford to buy on cash basis. So, EMI purchase is the best option for the problem of the financial hurdle faced by customers.

### **The impact of part payments on EMI**

Part payments reduce the outstanding loan amount, which in turn reduces the interest amount due. Without changing the EMI post part payment, the contribution of EMI towards principal repayment increases. Thus the loan gets repaid faster.

### **How is the borrowed amount and interest due paid through EMIs?**

Each EMI repays a part of principal i.e. the borrowed amount and the interest due on the borrowed amount. The proportion of each EMI utilised for repayment of principal and interest, however, varies over time. Banks and financial institutions, in general, calculate EMI through a common mathematical formula. Thus, for a given loan amount, tenure and interest rate, the EMI calculated and the amortization schedule offered by banks and Non-Banking Financial Companies (NBFCs) will typically be similar. This means that pattern of reduction of principal amount through payment of each EMI will typically follow similar trend across all financial institutions.

It is a well-known fact that the initial EMIs contribute more towards payment of interest due as compared to the principal amount. However, during the tenure of the loan, subsequent EMIs contribute more towards repayment of principal amount as compared to previous EMIs

### **OBJECTIVES OF STUDY**

1. To find factors those motivate customers to buy in EMI method.
2. To find the impact of EMI documentation on customers of Sathya agencies.
3. To know the customer perception on the EMI purchasing method.

### **Understanding Equated Monthly Installments (EMI)**

EMIs differ from variable payment plans, in which the borrower is able to pay higher payment amounts at his discretion. In EMI plans, borrowers are usually only allowed one fixed payment amount each month. The benefit of an EMI for borrowers is that they know precisely how much

money they will need to pay toward their loan each month, which makes their personal budgeting process easier.

### Equated Monthly Installment Formulas

The EMI could be calculated using the flat rate method or the reducing balance method. The EMI flat rate formula is calculated by summing the principal loan amount and the interest on the principal. The sum is divided by the number of periods in months.

The EMI reducing balance method is calculated using the formula:

$$(P \times I) \times ((1 + r)^n) / (t \times ((1 + r)^n) - 1)$$

In which

- P** - is equal to the principal amount borrowed,
- I**- is the annual interest rate,
- r** -is periodic monthly interest rate,
- n**-is the total number of monthly payments and
- t** -is the number of months in a year.

Generally, EMI Banking is stands for Equated Monthly Installment, a fixed amount of money that a person has to pay to Bank or NBFC every month at a particular date in order to return loan, the person has taken at the time of purchase of any product either online or offline.

Credit card companies make money by earning interest on late payments that you make. EMI on credit cards work much like a home loan or a personal loan – you pay the principal and interest each month and clear off your debt over a period of time. Put it simply, that is how EMIs on credit cards work.

$$EMI = [P \times R \times (1+R)^N] / [(1+R)^N - 1],$$

- P** stands for the loan amount or principal,
- R** is the interest rate per month. If the interest rate per annum is 11%, then the rate of interest per month will be 11% divided by 12 = (11/100)/12.
- N** is the number of monthly installments.

### CREDIT CARD EMI

EMI or equated monthly installment is the amount the borrower needs to pay every month to the lender of the loan. In most cases, an EMI would be the sum of principal amount and the interest divided by the tenure of the loan. However, the interest calculation varies from case to case.

### INTEREST RATE

The interest rate is the amount a lender charges for the use of assets expressed as a percentage of the principal. The interest rate is typically noted on an annual basis known as the annual percentage rate (APR). The assets borrowed could include cash, consumer goods, or large assets such as a vehicle or building.

### **ADVANTAGES OF EMI**

- Freedom to Buy Expensive Utilities:
- EMI gives a chance to consumers to buy expensive utilities which they won't be able to buy otherwise.
- Be it expensive household items, a vehicle, gifts and jewellery for wedding or a house itself, EMI helps you buy anything and everything.
- As consumers get a chance to divide the amount in monthly installments and pay it off easily, they make the purchase and enjoy the benefits.
- This gives an advantage to not only buyers of such expensive utilities but also to the traders and sellers.
- EMIs are like a wishing bone for common man.

### **EASY ON WALLETS**

The borrower can pay the loan in monthly installments by opting EMI scheme. The amount is determined on the basis of principal loan amount, tenure, interest rate and the borrower's ability of repayment. This makes it easier for the borrowers to pay off the said amount in small chunks every month. Thus they don't have to pinch their monthly expenses to afford various expensive utilities.

### **FLEXIBLE EMI OPTIONS BY BANKS**

Many banks, now-a-days offer flexible EMI options to the borrowers. The EMIs are adjusted and decided as per the borrower's needs. The installment and tenure is decided by the borrower as per his or her convenience.

### **PRODUCTS AND SERVICES OFFERED AT SATHYA AGENCIES PVT LTD**

When visiting Sathya Agencies Pvt Ltd at Tuticorin HO, customers will be awe-struck by the entire range of products that are available here. Customers at this store have a wide range of options to choose from in terms of the best of brands that are available under one roof. Right from the latest mobile phones and cameras to laptops, television and audio sets, kitchen appliances and home appliances, every single electronic product can be found here. One can find the best of products from the most reliable brands which include the likes of Sony, LG, Apple, Samsung, Dell, Lenovo, Toshiba, Whirlpool, Panasonic, Videocon and various others. One can compare the features and prices of

products available across brands and make an informed decision with suggestions from the staff, who have in-depth knowledge of the products and offer complete assistance to customers. The store is open from 09:00 - 22:00 on all days of the week.

### **Strength of Sathya Agencies**

#### **Promoter's experience in the retail trade of consumer durables**

The company is managed by experienced promoter and management who are in the consumer durables retail segment for nearly three decades. Sathya commenced operations in 1987 as a retailer for household appliances and consumer electronics and has been adding stores every year, primarily in the South Indian retail market. Operating in the market for more than three decades has helped the company in establishing a healthy brand presence in Tamil Nadu; and has strong relationship with the manufacturers such as LG, Samsung, Sony, Whirlpool, Godrej, Haier, Panasonic, Voltas Limited, IFB among others which lends stability to its business risk profile and for store expansion. This has helped in reporting a healthy revenue growth at a compound annual growth rate (CAGR) of about 38 percent over three years through FY2018. Acuité believes that more than three decades of established brand presence in Tamil Nadu, long standing operational track record and extensive experience of promoters would continue to aid in improving the business risk profile of the Sathya over the medium term.

#### **Robust revenue growth and improving EBITDA margins**

Sathya's revenue has shown multi-fold growth over the last 3 years ending March, 2018 from Rs.478.40 crores in FY16 to Rs.913.38 crores in FY18; reflecting a CAGR of about 38 percent for over three years through FY2018. For six months through September 2018, Sathya has booked revenues of Rs.504.65 crores. The revenue growth is driven by continuous store addition, established brand presence and deeper penetration in new markets. Sathya has added 10 new stores in the current year, and plans to add at least five – ten stores per annum over the medium term. EBITDA margins have improved from 1.96 percent in FY16 to 2.78 percent in FY18, though thin due to its strong procurement linkages with its vendor for last two-three decades, and improving product mix with high margin revenue products and economies of scale of operations. Acuité believes that revenue would continue to grow in positive traction on the back of launch of new stores and higher revenues from existing stores, better economies of scale are expected to drive the revenues and profitability.

### **ANALYSIS OF DATA**

#### **Table:1 Age wise analysis of Respondents**

S.No.	Age	No.of Respondents	Percentage (%)
1	20-30	68	61.8
2	30-40	20	18.2
3	40-50	16	14.5
4	50-60	6	5.5
	<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

This table shows the age composition of the respondents. Out of 110 respondents 61.8% of them belong to the age group 20-30years,18.2% of them belong to the age group 30-40 years,14.5% of them belong to the age group 40-50 years,5.5% of them belong to the age group of up to 50-60 years.

**Table: 2 Occupation of the Respondents**

S.No.	Occupation	No. of the Respondents	Percentage (%)
1	Government employee	12	10.9
2	Private employee	32	29.5
3	Business	28	25.5
4	Others	38	34.5
	<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

This table shows the Occupation of the respondents. Up to 110 respondents. 10.9% of respondents are Government employee and 29.5% of the respondents are private employee, 25.5% of the respondents are business, and 34.5% of the respondents are others.

**Table: 3 Monthly Income of the Respondents**

S.No.	Income	No. of the respondents	Percentage (%)
1	5000-9000	36	32.7
2	9000-12000	28	25.5

3	12000-15000	32	29.1
4	Above-15000	14	12.7
	<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

From the table, 32.7% of the respondent's family earn income between 5000-9000, 25.5% of the respondent's family earn income between 9000-12000, 29.1% of the respondent's family earn income between 12000-15000 12.7% of the respondent's monthly income above 15000 respectively.

**Table: 4Purchase to EMI Method of the respondents**

S.No.	Purchase to EMI Method	No.of Respondents	Percentage (%)
1	Zero Interest	42	38.2
2	Low down payments	28	25.5
3	Easy to manage money	30	27.3
4	Other reasons	10	9
	<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

This table shows that 38.2% and 25.5% of the respondents are Zero Interest and low down payments of the purchase to EMI Method. 27.3% and 9% of the respondents are Easy to manage money and other reasons of the purchase to EMI Method.

**Table: 5Convenient to use for purchase of the respondents**

S.No.	Convenient to use for purchase	No.of the Respondents	Percentage (%)
1	Credit Card	28	25.5
2	EMI Card	82	74.5
	<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

The above table explains that the respondents Convenient to use for purchase of the respondents. 25.5% of the respondents are use for Credit Card purchase and 74.5% of the respondents

are use for EMI Card purchase.

**Table:6 Types of the purchase of the respondents**

S.No.	Types of Purchase	No.of the Respondents	Percentage (%)
1	Cash Purchase	38	34.5
2	EMI Purchase	72	65.5
	<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

This table shows that 34.5% of the respondents are Cash Purchase and 65.5% of the respondents are EMI Purchase.

**Table: 7 Convenient to pay of the respondents**

S.No.	Convenient to pay	No.of the Respondents	Percentage (%)
1	3 months	15	13.6
2	6 months	12	10.9
3	12 months	67	60.9
4	18 months	10	9.1
5	24 months	6	5.5
	<b>Total</b>	<b>110</b>	<b>100</b>

**Source:** Primary data

This table shows that 13.6% of the respondents are 3months, 10.9% of the respondents are 6 months, and 60.9% of the respondents are 12 months, 9.1% of the respondents are 18 months, 5.5% of the respondents are 24 months.

#### **FINDINGS SUGGESTIONS CONCLUSION FINDINGS**

- Majority of the respondents are (61.8%) between below 20-30 years.

- 34.5% of the respondents are others occupation.
- The maximum numbers of the respondent's 29.1% monthly income is Rs.12000-15000.
- 25.5% of the respondents are use for Credit Card purchase and 74.5% of the respondents are use for EMI Card purchase.
- 34.5% of the respondents are Cash Purchase and 65.5% of the respondents are EMI Purchase.
- The maximum numbers of the respondents convenient to pay for 60.9% of the respondents are 12 months.

### SUGGESTIONS

- Issuing more EMI cards can encourage customers for EMI purchases.
- If the existing EMI card users are not using EMI card regularly then the card will be blocked by the company. This is stopping the customer from purchasing. If this card blocks are stopped, then there is a scope for increasing the EMI sales.
  - The documentation process is time consuming for the new customers for getting a loan. Decreasing of this process time can bring a positive attitude among the customers regarding the consumer durable loan.
  - Most of customers are not getting loans because of less CIBIL score. There are some cases where loans are not approved where customers won't get loans just because of 1 or 2 less points. If the companies can approve loans for those cases who have low CIBIL score 1 by just 1 or 2 points, then EMI sales can be improved.
  - Bringing more awareness in the rural areas and towns regarding the consumer durable loans can improve the sales by EMI.

### CONCLUSION

By this study I have observed that the main motivational factors that are influencing customers in the Sathya agencies are 0% interest rate on the consumer durable loan. Customers prefer to buy on EMI basis because they are getting high cost products just by very low-down payment and even zero down payment on specific products which is a delightful feeling. Some customers are happy in taking products on EMI basis because the amount deducted every month is very small amount which is easy and better than paying the whole amount at a time. EMI documentation is done by taking few documents then loan is approved in period of 15-20 minutes and the payment is done according to the

scheme approved to the customer. Out of 110 people as sample 72 Customers like purchasing through EMI and 38 persons are using cash Purchase on their shopping. Existing customers have a positive perception towards the EMI method are likely to suggest others regarding EMI purchasing, but there are major problems addressed by customers are found in this study which are mostly card block issues and low limit issues. Reducing this problem of the customers can boost the EMI sales.

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**Physical Activity intervention on Locomotor Skills among school children – Pre and post randomised controlled study.**

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**Abstract**

The study aimed to find the 12 weeks of Physical Activity (PA) interventions on Locomotor skills among 6-7 years school children - Pre and post randomised controlled study. The 60 participants (age range, 6-7) were recruited from among the total of 200 school children from Sri Sarada Matriculation School, Ariyakulam, Tirunelveli, Tamil Nadu, India by random sampling method. Selected participants further randomly divided into two groups each 30 participants. The Test of Gross Motor Development-Second Edition (TGMD-2) was used to test the Locomotor skill. pre and post randomised control design. Randomised control Group (i.e experimental and control group) will be randomised to divide the group by random sampling method. In this study we used Probability sampling technique were used. Based on that Parametric Statistics were selected such as Descriptive statistics used to find the nature of the data, paired sample t test used to find the improvement between pre and post test and Univariate Analysis of Covariance (ANCOVA) used to find the difference among the groups. Statistical significance was established as  $P < 0.05$ . According to the findings of the present study PA intervention had influenced to develop the children motor skill ability such as Locomotor skills (run, gallop, hop, leap, horizontal jump and slide).

**Key words:** Physical activity, Locomotor skill, School children and TGMD-2

**Introduction**

Over the past two decades, PA among children and adolescents has been decreasing at an alarming rate (Bos, 2003; Bonvin, Barral, Kakebeeke, Kriemler, Longchamp, Schindler, & Puder, 2013). PA can positively influence children growth and development (Hills, King, & Armstrong, 2007; Gallotta, Baldari, & Guidetti, 2018). PA contributing to the balanced development of physical,

cognitive, emotional, and social skills (Bailey, 2006; Gallotta, Baldari, & Guidetti, 2018; Janssen, & LeBlanc, 2010). Relationships between PA and motor skills are bidirectional and both PA and motor skills represent essential components for developmental processes of children and influence motor, cognitive or emotional aspects of children's health (Stodden, Goodway, Langendorfer, Robertson, Rudisill, Garcia, & Garcia, 2008; Bonvin, Barral, Kakebeeke, Kriemler, Longchamp, Schindler, & Puder, 2013).

Fundamental movement skill (FMS) are measured the building blocks for Human movement (Gallahue, Ozmun, & Goodway, 2006). FMS ability, including locomotor (motor skills that move the body posture from one place to another, e.g., running, jumping) and Manipulative skills (motor skills that use hands, feet, or body parts to manipulate or control an object, e.g., dribbling with hands, catching, throwing), has been identified as a key mediator for the changes in children's PA (Cohen, Morgan, Plotnikoff, Barnett, & Lubans, 2015; Chan, Ha, & Ng, 2016; Stodden, Goodway, Langendorfer, Robertson, Rudisill, Garcia, & Garcia, 2008).

Thus, increasing PA provides more opportunities to promote neuromotor development (Fisher, Reilly, Kelly, Montgomery, Williamson, Paton, & Grant, 2005; Wrotniak, Epstein, Dorn, Jones, & Kondilis, 2006; Bonvin, Barral, Kakebeeke, Kriemler, Longchamp, Schindler, & Puder, 2013). Moreover, children who habitually play a part in PA have reduced symptoms of anxiety and depression, and improved self-esteem and confidence (Janssen, & LeBlanc, 2010; Cohen, Morgan, Plotnikoff, Callister, & Lubans, 2014). An increasing amount of evidence suggests that the growth of motor skill ability is an significant underlying tool that promotes engagement in PA (Castelli, & Valley, 2007).

### **Purpose of the Study**

To find the effect of 12 weeks of PA intervention impact children Locomotor skills - Pre and post randomised controlled study.

### **Methodology**

#### **Participants**

The 60 participants (age range, 6-7) were recruited from among the total of 200 school children from Sri Sarada Matriculation School, Ariyakulam, Tirunelveli, Tamil Nadu, India by random sampling method. Selected participants further randomly divided into two groups each 30 participants. All participants are required to return a signed informed consent letter from their parents prior to

their participation in this trial.

## Measures

TGMD-2 was used to test the Locomotor skill among school children aged 6-7 years. The TGMD-2 demonstrates appropriate reliability, in excess of 0.80, with respect to demographics and stability measuring the performance of children over time, and has a test-retest reliability correlation coefficient of 0.98. Adequate test-retest reliability has additionally been established for locomotion ( $r = 0.88; \alpha = 0.85$ ). This instrument is also appropriately valid across five constructs including age differentiation, group differentiation, item validity, subtest correlations, and factor analysis (Ulrich 2000).

The TGMD-2 is composed of two subtests for gross motor development—locomotor and object control. Both of these subtests are comprised of six different gross motor skills. For each of these six skills, there are between 3 and 5 assessment criteria. For this intervention select Locomotor skills only. The locomotor subset measures run (four criteria), gallop (four criteria), hop (Five criteria), leap (Three criteria), horizontal jump (four criteria) and slide (four criteria). For analysis part the sum of Locomotor skill raw score were used.

## Procedures

Initially Pre-test were conducted for experimental and control groups on Locomotor skills. After that experimental group underwent the PA intervention. This study was completed Three days per week over 12 weeks for a total of 36 individual sessions with 60-90 min of each session. All PA for this intervention were selected based on the following Locomotor skills such as run, gallop, hop, leap, horizontal jump and slide. The Certified Motor Skill Learning Coach (Dr. S. Sethu, Mr. Ramakrishnan and Ms. M. Ganeshwari from Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu, India) certified by Motor Skill Learning academy, Switzerland were used to Monitor the entire intervention programme.

## Intervention

Participants in the experimental group performed the PA intervention for 60-90 min per day, 3 days per week for 12 weeks (36 sessions). The PA interventions were done as follows: Start with warm up' Dynamic Warm-Up, Snatch the Flag, Hopping Tag, Rotating the Body and Body Parts, Landing on Feet, Hula Hoop Igloos, Partner Rounders, Straddle Jumps, Rhythmic Jumping, Feel the Spring and Warm down.

**Design and Statistical Analysis**

The designed school-based intervention will be evaluated using a pre and post randomised control design. Randomised control Group (i.e experimental and control group) will be randomised to divide the group by random sampling method. In this study we used Probability sampling technique were used. Based on that Parametric Statistics were selected such as Descriptive statistics used to find the nature of the data, paired sample t test used to find the improvement between pre and post test and Univariate Analysis of Covariance (ANCOVA) used to find the difference among the groups. Statistical significance was established as  $P < 0.05$ .

**Analysis of Data**

Table 1 Descriptive Statistics

Group	Test	Mean	N	SD
Experimental Group	Pre test	32.67	30	1.65
	Post test	35.20	30	5.25
Control Group	Pre test	32.70	30	1.64
	Post test	32.77	30	1.65

Table 2 Paired t test comparing between pre and post-test in each group

Variable	Group	t test statistics	df	P value
Locomotor Skills	Experimental Group	2.64	29	0.01
	Control Group	1.00	29	0.33

Table 3 Univariate ANCOVA Comparing two groups

Variable	Adjusted Post-test Mean		Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Locomotor Skills	Experimental Group	Control Group	90.628	1	90.628	6.513	0.013	0.103
	35.212	32.754	793.106	57	13.914			

**Results**

The Shapiro–Wilk test was used to study the normal distribution of data. As the results showed the normal distribution ( $P > 0.05$ ), parametric statistical methods were used to analyze the data.

Descriptive statistics of experimental and control groups is shown in Table 1 shows the Mean and SD of Experimental group are pre test  $32.67 \pm 1.65$  & post test  $35.20 \pm 5.25$  and control group are pre test  $32.70 \pm 1.64$  & post test  $32.77 \pm 1.65$  respectively.

Paired sample t test value of experimental group is  $p=0.01$  which is less than the  $p=0.05$ . it shows there is a significance improvement on locomotor skill due to 12 weeks of PA intervention. Also control group is  $p=0.33$  which is greater than the  $p=0.05$ . it shows control group did not had improvement on locomotor skills.

Before computing univariate ANCOVA assumption test were conducted. In that, Levene's test (The assumption of equality of variance) are  $p=0.110 > 0.05$ . Also The linear relationship between the covariates values are  $p=0.021 < 0.05$ . After determining the assumptions for computing Univariate ANCOVA have been met with the pre data analysis, the univariate ANCOVA value  $p=0.013 < 0.05$ . The result indicates there is a significance difference between experimental and control groups on locomotor skills.

## Discussion

In this present study, we evaluated 12 weeks of PA intervention on Locomotor skill among school children ages 6-7 years. The results shows that 12 weeks of PA intervention significance improvement on locomotor among school children 6-7 years age. Also the results shows significance difference exists among the group on locomotor skills. Our results are consistent with Kosari, Hemayat-Talab, Arab-Ameri, & Keyhani, (2013), Ericsson, & Karlsson, (2011), Ericsson, (2008), Ericsson, (2011) & Jones, Okely, Hinkley, Batterham, & Burke, (2016) study highlights the potential of educator-led physical activity interventions and supports the need for further translational trials within the early childhood sector. The Motor Development as a Basis for Learning could be used to improve children's motor skills in practice. Motor Development as a Basis for Learning program can be useful as a pedagogic model for detecting and improving motor skills in school.

## Conclusion

According to the findings of the present study PA intervention had influenced to develop the children motor skill ability such as Locomotor skills (run, gallop, hop, leap, horizontal jump and slide). Hence we recommend Physical educators and Parents to provide PA for better motor skills development. Also PA indirectly develop the cognitive too.

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**EFFECTS OF GLOBAL WARMING IN THE ENVIRONMENT****C.Girija**

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**ABSTRACT**

**Global warming** is defined as an increase in the average temperature of the Earth's atmosphere, especially a sustained increase significant enough to cause changes in the global climate. The term global warming is synonymous with an enhanced greenhouse effect, implying an increase in the amount of greenhouse gases in the earth's atmosphere, leading to entrapment of more and more solar radiations, and thus increasing the overall temperature of the earth. Deforestation is one of the most causes of it. Melting ice, floats, droughts are some effects of global warming in India. 2018 is one of the hottest years in the world. Prevention is the most necessary in this scenario.

**KEY WORDS: Global warming, Greenhouse effect, Greenhouse gases, Climate change, Floats, Deforestation.**

**INTRODUCTION**

Global warming is the long-term warming of the planet's overall temperature. Though this warming trend has been going on for a long time, its pace has significantly increased in the last hundred years due to the burning of fossil fuels. As the human population has increased, so has the volume of fossil fuels burned. Fossil fuels include coal, oil, and natural gas, and burning them causes what is known as the "greenhouse effect" in Earth's atmosphere. In this article, the author gives the cause and effect of global warming, impact of global warming in India and solutions of global warming.

**GLOBAL WARMING**

Global warming refers to the steady temperature rise on our planet. The globe is heating up. Both land and oceans are warmer now than they were when record keeping began, in 1880, and temperatures are still ticking upward. This rise in heat is global warming, in a nutshell.

According to the National Oceanic and Atmospheric Administration (NOAA), between 1880

and 1980, the global annual temperature increased at a rate of 0.13 degrees Fahrenheit (0.07 degrees Celsius) per decade, on average. Since 1981, the rate of increase has sped up, to 0.32 degrees F (0.18 degrees C) per decade. This has led to an overall 3.6 degrees F (2 degrees C) increase in global average temperature today compared to the preindustrial era. In 2019, the average global temperature over land and ocean was 1.75 degrees F (0.95 degrees C) above the 20th-century average. That made 2019 the second hottest year on record, trailing only 2016.

This rise in heat is caused by humans. The burning of fossil fuels has released greenhouse gases into the atmosphere, which trap warmth from the sun and drive up surface and air temperatures.

## GREENHOUSE EFFECT

The main driver of today's warming is the combustion of fossil fuels. These hydrocarbons heat up the planet via the greenhouse effect, which is caused by the interaction between Earth's atmosphere and incoming radiation from the sun.

"The basic physics of the greenhouse effect were figured out more than a hundred years ago by a smart guy using only pencil and paper," Josef Werne, a professor of geology and environmental science at the University of Pittsburgh, told Live Science.

## GREENHOUSE GASES WARM THE PLANET

Certain gases in the atmosphere block heat from escaping. Long-lived gases that remain semi-permanently in the atmosphere and do not respond physically or chemically to changes in temperature are described as "forcing" climate change. Gases, such as water vapor, which respond physically or chemically to changes in temperature, are seen as "feedbacks."

Gases that contribute to the greenhouse effect include:

- **Water vapor:** The most abundant greenhouse gas, but importantly, it acts as a feedback to the climate. Water vapor increases as the Earth's atmosphere warms, but so does the possibility of clouds and precipitation, making these some of the most important feedback mechanisms to the greenhouse effect.
- **Carbon dioxide (CO<sub>2</sub>):** A minor but very important component of the atmosphere, carbon dioxide is released through natural processes such as respiration and volcano eruptions and through human activities such as deforestation, land use changes, and burning fossil fuels. Humans have increased atmospheric CO<sub>2</sub> concentration by 47% since the Industrial Revolution began. This is the most important long-lived "forcing" of climate change.

- **Methane:** A hydrocarbon gas produced both through natural sources and human activities, including the decomposition of wastes in landfills, agriculture, and especially rice cultivation, as well as ruminant digestion and manure management associated with domestic livestock. On a molecule-for-molecule basis, methane is a far more active greenhouse gas than carbon dioxide, but also one which is much less abundant in the atmosphere.
- **Nitrous oxide:** A powerful greenhouse gas produced by soil cultivation practices, especially the use of commercial and organic fertilizers, fossil fuel combustion, nitric acid production, and biomass burning.
- **Chlorofluorocarbons (CFCs):** Synthetic compounds entirely of industrial origin used in a number of applications, but now largely regulated in production and release to the atmosphere by international agreement for their ability to contribute to destruction of the ozone layer. They are also greenhouse gases.

**Not enough greenhouse effect:** The planet Mars has a very thin atmosphere, nearly all carbon dioxide. Because of the low atmospheric pressure, and with little to no methane or water vapor to reinforce the weak greenhouse effect, Mars has a largely frozen surface that shows no evidence of life.

**Too much greenhouse effect:** The atmosphere of Venus, like Mars, is nearly all carbon dioxide. But Venus has about 154,000 times as much carbon dioxide in its atmosphere as Earth (and about 19,000 times as much as Mars does), producing a runaway greenhouse effect and a surface temperature hot enough to melt lead.

On Earth, human activities are changing the natural greenhouse. Over the last century the burning of fossil fuels like coal and oil has increased the concentration of atmospheric carbon dioxide (CO<sub>2</sub>). This happens because the coal or oil burning process combines carbon with oxygen in the air to make CO<sub>2</sub>. To a lesser extent, the clearing of land for agriculture, industry, and other human activities has increased concentrations of greenhouse gases.

The consequences of changing the natural atmospheric greenhouse are difficult to predict, but some effects seem likely:

- On average, Earth will become warmer. Some regions may welcome warmer temperatures, but others may not.

- Warmer conditions will probably lead to more evaporation and precipitation overall, but individual regions will vary, some becoming wetter and others dryer.
- A stronger greenhouse effect will warm the ocean and partially melt glaciers and ice sheets, increasing sea level. Ocean water also will expand if it warms, contributing further to sea level rise.
- Outside of a greenhouse, higher atmospheric carbon dioxide (CO<sub>2</sub>) levels can have both positive and negative effects on crop yields. Some laboratory experiments suggest that elevated CO<sub>2</sub> levels can increase plant growth. However, other factors, such as changing temperatures, ozone, and water and nutrient constraints, may more than counteract any potential increase in yield. If optimal temperature ranges for some crops are exceeded, earlier possible gains in yield may be reduced or reversed altogether.

Climate extremes, such as droughts, floods and extreme temperatures, can lead to crop losses and threaten the livelihoods of agricultural producers and the food security of communities worldwide. Depending on the crop and ecosystem, weeds, pests, and fungi can also thrive under warmer temperatures, wetter climates, and increased CO<sub>2</sub> levels, and climate change will likely increase weeds and pests.

## **DEFORESTATION**

Deforestation is also a large contributor to excess CO<sub>2</sub> in the atmosphere. In fact, deforestation is the second largest anthropogenic (human-made) source of carbon dioxide, according to research published by Duke University. After trees die, they release the carbon they have stored during photosynthesis. According to the 2010 Global Forest Resources Assessment, deforestation releases nearly a billion tons of carbon into the atmosphere per year.

## **EFFECTS OF GLOBAL WARMING**

Global warming doesn't just mean warming, which is why "climate change" has become the favored term among researchers and policymakers. While the globe is becoming hotter on average, this temperature increase can have paradoxical effects, such as more frequent and severe snowstorms. Climate change can and will affect the globe in several big ways: by melting ice, by drying out already-arid areas, by causing weather extremes and by disrupting the delicate balance of the oceans.

### **Melting ice**

Perhaps the most visible effect of climate change so far is the melting of glaciers and sea ice. The ice sheets have been retreating since the end of the last ice age, about 11,700 years ago, but the

last century's warming has hastened their demise. A 2016 study found that there is a 99% chance that global warming has caused the recent retreat of glaciers; in fact, the research showed, these rivers of ice retreated 10 to 15 times the distance they would have if the climate had stayed stable. Glacier National Park in Montana had 150 glaciers in the late 1800s. Today, it is 26. The loss of glaciers can cause the loss of human life, when icy dams holding back glacier lakes destabilize and burst or when avalanches caused by unstable ice bury villages.

In the Antarctic, the picture has been a little less clear. The Western Antarctic Peninsula is warming faster than anywhere else besides some parts of the Arctic, according to the Antarctic and Southern Ocean Coalition. The peninsula is where the Larsen C ice shelf just broke in July 2017, spawning an iceberg the size of Delaware. Now, scientists say that a quarter of West Antarctica's ice is in danger of collapse and the enormous Thwaites and Pine Island glaciers are flowing five times faster than they did in 1992.

### **Heating up**

Global warming will change things between the poles, too. Many already-dry areas are expected to get even drier as the world warms. The southwest and central plains of the United States, for example, are expected to experience decades-long "megadroughts" harsher than anything else in human memory.

"The future of drought in western North America is likely to be worse than anybody has experienced in the history of the United States," Benjamin Cook, a climate scientist at NASA's Goddard Institute for Space Studies in New York City who published research in 2015 projecting these droughts, told Live Science. "These are droughts that are so far beyond our contemporary experience that they are almost impossible to even think about."

The study predicted an 85% chance of droughts lasting at least 35 years in the region by 2100. The main driver, the researchers found, is the increasing evaporation of water from hotter and hotter soil. Much of the precipitation that does fall in these arid regions will be lost.

### **Extreme weather**

Another impact of global warming: extreme weather. Hurricanes and typhoons are expected to become more intense as the planet warms. Hotter oceans evaporate more moisture, which is the engine that drives these storms. Paradoxically, climate change may also cause more frequent extreme snowstorms. According to the National Centers for Environmental Information, extreme snowstorms

in the eastern United States have become twice as common as they were in the early 1900s. Here again, this change comes because warming ocean temperatures lead to increased evaporation of moisture into the atmosphere. This moisture powers storms that hit the continental United States.

### **Ocean disruption**

Some of the most immediate impacts of global warming are beneath the waves. Oceans act as carbon sinks, which means they absorb dissolved carbon dioxide. That's not a bad thing for the atmosphere, but it isn't great for the marine ecosystem. When carbon dioxide reacts with seawater, the pH of the water declines (that is, it becomes more acidic), a process known as ocean acidification. This increased acidity eats away at the calcium carbonate shells and skeletons that many ocean organisms depend on for survival. These creatures include shellfish, pteropods and corals, according to NOAA.

### **IMPACTS OF GLOBAL WARMING ON CLIMATE OF INDIA**

The effect of global warming on the climate of India has led to climate disasters as per some experts. India is a disaster prone area, with the statistics of 27 out of 35 states being disaster prone, with floods being the most frequent disasters. The process of global warming has led to an increase in the frequency and intensity of these climatic disasters.

According to surveys, in the year 2007-2008, India ranked the third highest in the world regarding the number of significant disasters, with 18 such events in one year, resulting in the death of 1103 people due to these catastrophes.

The anticipated increase in precipitation, the melting of glaciers and expanding seas have the power to influence the Indian climate negatively, with an increase in incidence of floods, hurricanes, and storms.

Global warming may also pose a significant threat to the food security situation in India.

According to the The Indira Gandhi Institute of Development Research, if the process of global warming continues to increase, resulting climatic disasters would cause a decrease in India's GDP to decline by about 9%, with a decrease by 40% of the production of the major crops. A temperature increase of 2° C in India is projected to displace seven million people, with a submersion of the major cities of India like Mumbai and Chennai.

### **SOLUTIONS OF GLOBAL WARMING**

All these solutions exist today, and many of them hinge on humans changing the way we

behave, shifting the way we make and consume energy. The required changes span technologies, behaviors, and policies that encourage less waste and smarter use of our resources.

Some of solutions of global warming are the improvements to energy efficiency and vehicle fuel economy, increases in wind and solar power, bio-fuels from organic waste, setting a price on carbon, and protecting forests are all potent ways to reduce the amount of carbon dioxide and other gases trapping heat on the planet.

Scientists are also working on ways to sustainably produce hydrogen, most of which is currently derived from natural gas, to feed zero-emission fuel cells for transportation and electricity. Other efforts are aimed at building better batteries to store renewable energy; engineering a smarter electric grid; and capturing carbon dioxide from power plants and other sources with the goal of storing it underground or turning it into valuable products such as gasoline. Some people argue that nuclear power—despite concerns over safety, water use, and toxic waste—should also be part of the solution, because nuclear plants don't contribute any direct air pollution while operating.

While halting new greenhouse gas emissions is critical, scientists have also emphasized that we need to extract existing carbon dioxide from the atmosphere. More fanciful ideas for cooling the planet—so-called “geo-engineering” schemes such as spraying sunlight-reflecting aerosols into the air or blocking the sun with a giant space mirror—have largely been dismissed because they may pose more environmental risks than proven benefits.

But planting trees, restoring sea-grasses, and boosting the use of agricultural cover crops could help clean up significant amounts of carbon dioxide. Restoring forests already chopped down in Brazil, for example, could draw about 1.5 billion metric tons of CO<sub>2</sub> out of the air, and a recent study published by the National Academies of Science estimates the world's forests and farms could store 2.5 gigatons. Those are relatively modest numbers given historic carbon emissions of 2.2 trillion metric tons, but every contribution is needed to curtail the world's current trajectory.

## CONCLUSION

Global warming is the long-term heating of Earth's climate system observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere.

One Indian proverb says that “Only when the last tree has died and the last river has been poisoned and the last fish has been caught will we realize we cannot eat money.”

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## AM I A CLIMATE OF CLIMATE? - PERSONAL MOTIVATION THROUGH CLIMATE LITERACY

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### **Introduction:**

Climate variation has a great influence on the Earth's biotic and organic systems. These changes have led to the advent of environmental threats to human health as it causes extreme weather conditions, ozone depletion, increased danger of forest fires, loss of biodiversity, stresses to ecosystem and the global spread of infectious diseases.

Global climate change impacts on human and natural systems are predicted to be severe in future. Policy makers, government, industry, commerce and society together, play indispensable roles in preventing hazardous climate changes but the most important role is that of the individuals. We have to explore possibilities to bring about behavioral changes so that we don't destroy nature and bring about harmful change in the climate. Motivation for voluntary mitigation is needed to perceive the threats and severity of climate change or climate variability impacts and to prevent them. Thus, a initiative of self-analysis about our vice from a healthy perspective will motivate behaviour change through climate literacy.

### **Climate Literacy:**

Climate Literacy or Climate Science Literacy refers to the understanding of human influences on climate and the impacts of climate on human life. A clear knowledge, understanding and application of the do's and don'ts of conserving the climate must be imbibed at an early age. Taking care of the environment should become habitual. This could be brought about only if this literacy starts from primary level and be a part of education till higher studies. An individual who is climate literate will have the following characteristics:

- knows the principles of climate system and climatic changes
- could assess scientifically reliable info about climate
- analyses, reflects and communicates to the society, about climate and climatic changes
- will bear responsibility and be able to make accountable decisions with regard to one's behaviour that may affect climate.
- would care for the globe and have sense to leave a supportive and safe environment for the next generation.

The objective of climate literacy is to educate the causes and effects of human-induced climate change. The 2014 National Climate Assessment states that Global climate is altering and this is apparent across a wide range of studies. The global warming of the past 50 years is primarily due to human activities. This is an undeniable fact and before taking effort to make the world perfect we have to look into ourselves and make ourselves perfect.

### **Am I a Clymate?**

An exponential rise in population and increased fuel consumption have been the main causes for ruining the nature's routine. Humans are the primary force of spoiling or preventing nature. We are capable to make or break the symphony with nature. Of course, this is a composite issue with political, socio-economic, scientific and emotional dimensions, but individual realization and responsibility is the most important criteria in the present scenario.

Human actions, chiefly the combustion of fossil fuels, are varying the climate system. Human-driven vagaries in land use such as deforestation due to urbanization and shifts in livelihood patterns also alter the climate. Emissions from burning forests, heat effects caused by industrialization and changes in the natural cycles have set an alarm to look into the problem with utmost sincerity. As the prime problems of global climate change is human, the answers are also within the human realm. Transparency about the reasons for climate changes permits effective solutions to be established and employed.

Unintentionally, contemporary life-style has made us a CLY of the climate to steal or seize its wellness. In an open forum we talk much about the hazards of depleting natural resources but in reality, we won't recognize ourselves as a partner of this theft of nature happening at every moment. A critical self-analysis is needed and we have to revise and reflect upon our behaviour and identify where we go wrong and correct it. As in a scientific study we need not frame an inventory and respond to it, instead we could set ourselves an surveillance to list out our own faults.

Here is a list of a few easy things we can do right now to help fight climate change. Changes in the way we live our life whether big and small could help us diminish our personal carbon footprint and also inspire policy makers to act for the good of the planet. This could be a lead point for a great leap.

- Do your bit to accelerate the move to renewable sources and green power.
- Consuming organic foods are not only healthier but growing them also protects the environment and the climate.
- Avoid plastic wherever you can.

- Sharing is caring. Sharing reduces production in the name of wide consumption.
- Avoid purchasing electronic devices that you don't need and thereby shrink your carbon footprint.
- Don't be a source or cause of emission into the atmosphere.
- Consider social, ethical and ecological aspects in any investment you make.
- Adapt yourselves to the environment and don't bend the environment for your comfort. For example, when it comes to protecting the climate, the humble pedal-powered bicycle could be your choice.
- Protect our forests and plant more trees. Gift your child a sapling on their special occasions.
- Promote the rights of indigenous people and be a social activist to raise your voice whenever there arises a calamity to climate.
- Be committed to climate protection. Make well-versed choices as a consumer and as a citizen.
- Like the "Fridays for Future" movement, get into action as we have to do more than the very little that has been done.

There is urgency of taking punitive measures now if we are to stand for halting the most distressing consequences of climate change. The issue of climate change is not too vast for individual actions to really make a difference. It is never late to start our changes within.

### **Incorporation in Curriculum:**

The target people who have to be made aware of the fact that humans are altering the climate, are the student community. They are the most powerful group who could form and reform the whole world. The best ground to educate them is incorporating environmental education in the curriculum at all possible levels, primary to secondary and also in higher education.

This concept may be painful to students due to feelings of guilt or genuine lack of scientific understanding. Moreover, prognoses of the effects of climate change on our society can frighten, overwhelm or discourage young minds. This can result in resistance to learning. Henceforth, educators should introduce the concept with substantial scaffolding that establishes the foundations of the process of science, the underlying principles of climate changes and a reliance on the strong scientific research that enhances this education.

Climate and energy-related scientific facts may be complicated or technically challenging and

at times, sensitive. When individuals begin to understand nature and scale the problems associated with climate and our life, they want to know "What can I do?". With genuine options and opportunities to address the challenges, learners of all ages can seize being a cly-mate of climate.

### **Personal Motivation:**

In what way we act to make others become saviours of climate or nature, it will not be a life-long endeavour unless they are intrinsically motivated to do so. Motivation is the kick that will keep one moving forward, make us feel that we are living a wholesome life and it is the driving force that will push us to achieve our goal in life.

Familiarize primary kids to climatic conditions. Middle school students will be familiar with climate changes known from the media, family or at school. Develop their understanding of how human activities cause climate changes. High school educators can help their students understand the connections between human activities and the climate system in a historical or sociological perspective. The undergraduate level students can be provided with opportunities to apply their understanding in a social context through self-designed activities.

Students pursuing Higher Education could examine datasets and illustrate the anthropogenic contributions to climate change. By having students work directly with the data and models, students can discover their own conclusions about the linkages. Introduction to research could be made a part and parcel of their life and education and thus they are personally motivated to identify whether the themselves are robbing the climate.

### **Conclusion:**

Life affects the climate system and in turn, the climate dictates life. Climatic conditions help to shape several ecosystems and habitats around the world. A specific climate can be a boon to one species and a bane to another. As the climate changes, ecosystem is devastated. Gradual shifts in the climate happens and it is harmful and an injustice to life to bring about an abrupt drift due to the mishaps caused by us due to our selfish motive. So, it is our responsibility to be accountable for the activities of humankind. We ourselves must not be areason to ruin nature and climate. Personal motivation has to bloom within every individual to save the nature for a prosperous future.

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**INFLUENCE OF CIRCADIAN RHYTHM ON ATHLETES****Dr. S. Josephine,**Director of Physical Education,  
St. Ignatius College of Education,  
Palayamkottai.**ABSTRACT**

The purpose of the study was to determine the variations in selected physical variables resulting from circadian rhythm. For this study, the following variables such as speed, flexibility, resting heart rate and skin temperature were selected. Fifteen inter college athletes were selected as one of the independent variables and four different times of the day such as 06:00, 10:00, 14:00 and 18:00 hours as other independent variable. The collected data were statistically analysed for significance using one way repeated measure analysis of variance (ANOVA). Whenever the 'F' ratio was found to be significant Scheffe's test was used as post hoc test. In all the cases .05 level was fixed as the level of confidence. It was concluded that the changes in speed, flexibility, resting heart rate and skin temperature showed significant variation in inter college athletes at different times of the day.

**Key Words:** Circadian Rhythm, Speed, Flexibility, Resting Heart Rate and Skin Temperature

**Introduction**

All living beings – plants, animals, and human beings – are regulated by biological cycles, or, in other words, biological events that repeat themselves at regular intervals. The rhythm of these cycles is called circadian, when it spans about 24 hours. In humans, the sleep-wake cycle obeys a circadian rhythm. Circadian rhythms are classed as exogenous and endogenous, depending on the extent to which they can be influenced by changes in environmental factors. The exogenous rhythms are the more labile and can be altered in phase or amplitude by manipulating variables extraneous to the individual. The main environmental factors which provide time cues for the body's clocks are light, temperature, physical and social activity. Rhythms that are endogenous are more resistant to changes in the environment.

**Significance**

Generally, circadian rhythms affect performance and the coach must take this into account. Therefore, the findings of this study will be of significance in the following way. The findings of the study will add to the existing knowledge with regard to the circadian variation on the selected bio-motor components, physiological variables among athletes. The results of the study may provide guideline, which will help the physical educators and coaches in preparing the training schedules for their athletes. The purpose of the study was to determine the variations in selected physical and physiological variables among athletes resulting from circadian rhythm.

**Methodology**

To achieve the purpose of the study fifteen intercollegiate male athletes were selected as

subjects from affiliated colleges of Manonmaniam Sundaranar University who had participated in the intercollegiate athletic meet and their age ranged from 20 to 25 years. Intercollegiate athletes were selected as one of the independent variables and four different times of the day such as 06:00, 10:00, 14:00 and 18:00 hours were selected as another independent variable. Speed, flexibility, resting heart rate and skin temperature were selected as dependent variables and were measured by 50 m run, sit and reach test, by using bio monitor and temperature of bio monitor respectively.

### Analysis of Data

The experimental design for the study was the single group repeated measure design. If he obtained F ratio for different times of the day were significant, the Scheffe's test was used as post hoc test to find out the paired mean differences. All the hypotheses were tested for significance at .05 level of confidence. The data were analysed and is presented in the following tables:

The mean and standard deviation of the dependent variables of intercollegiate athletes at four different times of the day is presented in Table I.

**TABLE I**  
**MEAN AND SD OF THE DEPENDENT VARIABLES ON**  
**ATHLETES AT DIFFERENT TIMES OF THE DAY**

Dependent Variables	Mean ± Standard Deviation			
	06:00	10:00	14:00	18:00
Speed	6.96±0.16	6.94±0.11	7.06±0.10	6.84±0.11
Flexibility	45.8±4.12	44.8±4.61	43.2±4.88	46.8±4.31
Resting Heart Rate	67.7±1.33	68.0±1.90	69.2±2.17	68.3±1.75
Skin Temperature	96.9±.6	97.6±0.63	98.0±0.87	98.7±1.06

The data of the dependent variables have been analyzed by one way ANOVA with repeated measures and the obtained results are presented in Table II.

**TABLE II: RESULTS OF ONE WAY ANOVA WITH REPEATED MEASURE**

Dependent Variables	Source	SS	Df	MS	F	P
Speed	Treatment (between groups)	0.3685	3	0.1228	16.16*	< .0001
	Error	0.319	42	0.0076		
Flexibility	Treatment (between groups)	107.4	3	35.8	4.17*	< .011
	Error	360.6	42	8.5857		
Resting Heart Rate	Treatment (between	17.7333	3	5.9111	4.02*	< .013

	groups)					
	Error	61.7667	42	1.4706		
Skin Temperature	Treatment (between groups)	25.804	3	8.6013	<b>43.91*</b>	<b>&lt; .0001</b>
	Error	8.226	42	0.1959		

\* Significant at .05 level of confidence.

From the table II, the obtained F-ratio for speed, flexibility, resting heart rate and skin temperature are 16.16, 4.17, 4.02 and 43.91 respectively which are higher than the table value of 2.83 with df 3 and 42 required for significance at .05 level of confidence. The results of the study show that there is a significant difference exists at different times of the day and to determine which of the paired means of the dependent variables had significant difference, the scheffe's test was applied as post hoc test and the results are presented in Table III.

**TABLE III**

**SCHEFFE'S TEST FOR DIFFERENCE BETWEEN THE PAIRED MEANS  
OF DEPENDENT VARIABLES ON ATHLETES IN FOUR DIFFERENT  
TIMES OF THE DAY**

	Speed						Flexibility					
<b>06:00</b>	6.96	6.96	6.96				45.8	45.8	45.8			
<b>10:00</b>	6.94			6.94	6.94		44.8			44.8	44.8	
<b>14:00</b>		7.06		7.06		7.06		43.2		43.2		43.2
<b>18:00</b>			6.84		6.84	6.84			46.8		46.8	46.8
<b>Mean Difference</b>	<b>0.03</b>	<b>0.10*</b>	<b>0.12*</b>	<b>0.13*</b>	<b>0.09*</b>	<b>0.22*</b>	<b>1.07</b>	<b>2.67*</b>	<b>0.93</b>	<b>1.60</b>	<b>2.00</b>	<b>3.60*</b>
	Resting Heart Rate						Skin Temperature					
<b>06:00</b>	67.7	67.7	67.7				96.9	96.9	96.9			
<b>10:00</b>	68.0			68.0	68.0		97.6			97.6	97.6	
<b>14:00</b>		69.2		69.2		69.2		98.0		98.0		98.0
<b>18:00</b>			68.3		68.3	68.3			98.7		98.7	98.7
<b>Mean Difference</b>	<b>0.33</b>	<b>1.47*</b>	<b>0.60</b>	<b>1.13*</b>	<b>0.27</b>	<b>0.87</b>	<b>0.69*</b>	<b>1.11*</b>	<b>1.81*</b>	<b>0.42*</b>	<b>1.12*</b>	<b>0.70*</b>

\* Significant at .05 level. CI for speed, flexibility, resting heart rate and skin temperature were 0.08, 2.57, 1.05 and 0.38 respectively.

Table III shows that the paired mean difference on speed were found to be significant in all paired means except between 06:00 and 10:00 hours of the day. The results of the study also show that the speed at 18:00 hours was better than 06:00, 10:00 and 14:00 hours of the day.

Table III shows that the paired mean difference on flexibility were found to be significant in 06:00 and

14:00 hours and 18:00 hours of the day. However, insignificant variations in flexibility was noted in the paired means between 06:00 and 10:00 hrs, 06:00 and 18:00 hrs, 10:00 and 14:00 hrs and 10:00 and 18:00 hrs of the day. The results of the study also show that the flexibility at 18:00 hours was better than 06:00, 10:00 and 14:00 hours of the day.

Table III shows that the paired mean difference on resting heart rate were found to be significant in 06:00 and 14:00 hours and 10:00 and 14:00 hours of the day. However, insignificant variations in resting heart rate was noted in the paired means between 06:00 and 10:00 hrs, 06:00 and 18:00 hrs, 10:00 and 18:00 hrs and 14:00 and 18:00 hrs of the day. The results of the study also show that the resting heart rate at 06:00 hours was better than 10:00, 14:00 and 18:00 hours of the day.

Table III also shows that the paired mean difference on skin temperature were found to be significant in six paired means out of the compared six paired means. The results of the study also show that the skin temperature at 18:00 hours was better than 06:00, 10:00 and 14:00 hours of the day.

## Conclusions

The following conclusions were drawn from the results of the study. There was a significant difference in speed, flexibility, resting heart rate and skin temperature among intercollegiate athletes at different times of the day. The results of the study show that the speed at 18:00 hours was better than 06:00, 10:00 and 14:00 hours of the day, flexibility at 18:00 hours was better than 06:00, 10:00 and 14:00 hours of the day, resting heart rate at 06:00 hours was better than 10:00, 14:00 and 18:00 hours of the day and skin temperature at 18:00 hours was better than 06:00, 10:00 and 14:00 hours of the day. It is also concluded that there was a significant difference in speed, flexibility, resting heart rate and skin temperature of athletes at different times of the day.

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**IMPACT OF SOCIAL MEDIA AND ACADEMIC ACHIEVEMENT AMONG HIGH SCHOOL PUPILS****Mrs. R.Mehala**

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**ABSTRACT**

The present study deals with Impact of social media and academic achievement among high school pupils in Madurai District. The investigator has used the survey method for the present study. The investigators developed a tool to measure the impact of social media among high school pupils. The sample consists of 300 High School Pupils from 10 schools. Different statistical techniques are used to analyze the data. The finding of the study reveals significant correlation between social media and academic achievement of female students.

**Key words:** *Social media, Academic Achievement, High school pupils.*

**INTRODUCTION**

The twenty-first century is the world of technology where most of the people do not imagine their life without technical usage through different social Medias. Global communication is implementing the Modern Technology through communication devices. It helps children's to be better leaning, free minded and keeping the information with global growths. Technology discloses humanity to a better way of doing things. Even our today's day starts with alarm in mobile phone and ends with facebook, whatsapp, etc., messages on the smart phone, this situation is prevailing even in most of the rural and urban areas. It can be interpreted that half of all youngsters who have Internet access are also the members of social networking sites, and use the web to make procedures and socialize with friends. Using technology in the classroom has two sides same as coins, both positive as well as negative. The excessive usage of the social media websites could have an addiction especially amongst the students, and it can cause problems in the academics (Akhtar, 2013). Most of the schools give more importance to computer education and in using of mobile learning app because of using this technology in today's classroom helps in pupils' engagement, active learning, working at the pace of the pupils need, getting feedback from an expert teacher. But some of the educational institutions do

not allow their pupils may become addiction to the technology and do less participate in face to face interaction with parents, teachers and their colleagues which play the crucial part in improvement in social skills. Spending time on social Networking Sites has many aspects , one aspect is that University students spend more than one hour on Facebook for nonacademic purposes and the academic use of Facebook is very limited Alhazmi and Rahman (2013). The social media have made it possible for likeminded individuals to disculss important topics, widen their personal knowledge and discover things they never knew before. Social media and networking sites have become the main way to communicate, share ideas, play games and find information directly or indirectly. These sites have become so popular that even the most intelligent pupils spend their free time that even the most intelligent pupils spend their free time without thinking about its negative impact.

### **SIGNIFICANCE OF THE STUDY**

Social media plays a important role in pupils life today. It is easier and convenient to access information and to provide information and communicate via social media. Online tools such as social media provides new opportunities for citizens and stakeholder groups to be informed, identify common interests, express and share opinions and demands, organize and coordinate interventions. Teaching learning practices are evolving day by day in higher education with emphasis being shifted to pupils' centric learning. Various efforts are being put into practice to use social media to harness effective learning. As younger generations are using such technology in the classrooms, they remark the educational landscape. For learning and teaching, social media is used in a variety of different contexts- language learning, writing development, after-class discussion, synchronous and asynchronous communication, community building and curricular tool. In the recent years academics have been expanding their social media usage to offer after-hours support for student, deliver and host lectures, disseminate information and engage in discussion. The use of social media has also demonstrated increased teacher-pupils and pupil-pupil interaction. With social media, pupils also become adept at the use of online technologies in learning environment. Use of social media in higher education has enhanced learning, increased participation and engagement, improved content dissemination and improved pedagogy and information sharing. So it becomes an important aspect to study the impact of social media and academic achievement of high school pupils.

### **STATEMENT OF THE PROBLEM**

“Impact of social media and academic achievement among high school pupils ”.

### **OBJECTIVES OF THE STUDY**

1. To find out whether there is any significant difference between male and female high school pupils in their social media.
2. To find out whether there is any significant difference between rural and urban high school pupils in their social media.
3. To find out whether there is any significant difference between male and female high school pupils in their academic achievement.
4. To find out whether there is any significant difference between rural and urban high school pupils in their academic achievement.
5. To find out whether there is any significant relationship between social media and academic achievement of female high school pupils.

### **HYPOTHESES OF THE STUDY**

1. There is no significant difference between male and female high school pupils in their social media.
2. There is no significant difference between rural and urban high school pupils in their social media.
3. There is no significant difference between male and female high school pupils in their academic achievement.
4. There is no significant difference between rural and urban high school pupils in their academic achievement.
5. There is no significant relationship between social media and academic achievement of female high school pupils.

### **METHODOLOGY**

The investigators have adopted the survey method.

### **POPULATION FOR THE STUDY**

The investigators for the present study consisted of IX standard and X standard students studying in the high schools of Madurai district.

### **SAMPLE FOR THE STUDY**

The investigators used stratified random sampling techniques. 10 schools were selected randomly and from each school, the students studying in IX and X standard were selected randomly. Totally the sample consisted of 146 IX standard students and 154 X standard students in Madurai District of TamilNadu.

### **TOOLS USED**

1. Social media scale constructed and validated by the investigators (2017).
2. Total marks obtained in the quarterly examination of high school pupils were considered as the academic achievement scores.

### STATISTICAL TECHNIQUES USED

Statistical techniques such as mean, standard deviation and correlation were used.

### ANALYSIS OF DATA

#### Null Hypothesis 1

There is no significant difference between male and female high school pupils in their social media.

**TABLE – 1**  
**DIFFERENCE BETWEEN MALE AND FEMALE HIGH SCHOOL PUPILS IN**  
**THEIR SOCIAL MEDIA**

Gender	N	Mean	S.D.	Calculated 't' value	Table value	Remarks at 5% level
Male	132	73.27	8.20	3.47	1.96	S
Female	168	76.30	6.95			

It is inferred from the above table 1 that the calculated 't' value (3.47) is greater than the table value (1.96) at 5% level of significance. Hence the null hypothesis is rejected. Therefore, it is concluded that there is a significant difference between male and female high school pupils in their social media. While comparing the mean scores of male (m=73.27) and female (m=76.30) high school pupils, female pupils are better than male pupils in their social media.

#### Null Hypothesis 2

There is no significant difference between rural and urban high school pupils in their social media.

**TABLE – 2**  
**DIFFERENCE BETWEEN RURAL AND URBAN HIGH SCHOOL PUPILS IN THEIR**  
**SOCIAL MEDIA**

Locality	N	Mean	S.D.	Calculated	Table	Remarks at
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				't' value	value	5% level
<b>Rural</b>	269	75.16	7.68	1.31	1.96	NS
<b>Urban</b>	31	73.26	7.42			

It is inferred from the above table 2 that the calculated 't' value (1.31) is greater than the table value (1.96) at 5% level of significance. Hence the null hypothesis is accepted. Therefore, it is concluded that there is no significant difference between rural and urban high school pupils in their social media.

### Null Hypothesis 3

There is no significant difference between male and female high school pupils in their academic achievement.

**TABLE – 3**

**DIFFERENCE BETWEEN MALE AND FEMALE HIGH SCHOOL PUPILS IN THEIR ACADEMIC ACHIEVEMENT**

Gender	N	Mean	S.D.	Calculated 't' value	Table value	Remarks at 5% level
<b>Male</b>	132	69.34	11.51	1.42	1.96	NS
<b>Female</b>	168	67.27	13.32			

It is inferred from the above table 3 that the calculated 't' value (1.42) is greater than the table value (1.96) at 5% level of significance. Hence the null hypothesis is accepted. Therefore, it is concluded that there is no significant difference between male and female high school pupils in their academic achievement.

### Null Hypothesis 4

There is no significant difference between rural and urban high school pupils in their academic achievement.

**TABLE – 4 DIFFERENCE BETWEEN RURAL AND URBAN HIGH SCHOOL PUPILS IN THEIR ACADEMIC ACHIEVEMENT**

Locality	N	Mean	S.D.	Calculated 't' value	Table value	Remarks at 5% level
Rural	269	67.75	12.84	2.02	1.96	S
Urban	31	71.87	9.45			

It is inferred from the above table 4 that the calculated 't' value (2.02) is greater than the table value (1.96) at 5% level of significance. Hence the null hypothesis is rejected. Therefore, it is concluded that there is significant difference between rural and urban high school pupils in their academic achievement.

While comparing the mean scores of urban school ( $m=71.87$ ) and rural school ( $m=67.75$ ) high school pupils, urban school pupils are better than rural school pupils in their academic achievement.

### Null Hypothesis 5

There is no significant relationship between social media and academic achievement of female high school pupils.

**TABLE – 5 RELATIONSHIP BETWEEN SOCIAL MEDIA AND ACADEMIC ACHIEVEMENT OF FEMALE HIGH SCHOOL PUPILS**

No.	$\Sigma x$	$\Sigma y$	$\Sigma x^2$	$\Sigma y^2$	$\Sigma xy$	Calculated 'r' value	Table value	Remarks at 5% level
168	12660	11071	963150	763763	837450	0.179	0.138	S

It is inferred from the above table 5 that the calculated 'r' value (0.179) is greater than the table value (0.138) for 166 df at 5% level of significance. Hence the null hypothesis is rejected. Therefore, it is concluded that there is a significant relationship between social media and academic achievement of female high school pupils.

### FINDINGS

1. There is a significant difference between male and female high school pupils in their social media. Female high school pupils are better than male pupils in their social media.

2. There is no significant difference between rural and urban high school pupils in their social media.
3. There is no significant difference between male and female high school pupils in their academic achievement.
4. There is significant difference between rural and urban high school pupils in their academic achievement. Urban school pupils are better than rural school pupils in their academic achievement.
5. There is a significant relationship between social media and academic achievement of female high school pupils.

## CONCLUSION

Social media has now become a very important part of our personal and profession life. The growth of social media over the years has transformed how most users experience the Internet. There have been diverse reactions experience the impact of social networks and how they affect academic performance. Hence, their academic performance must be managed well keeping in view all the factors that can be that can be positively or negatively affect their academic achievement.

The pupils who are using the Social Medias need to be monitored about their usage of these e-mails. The pupils who are using the social media need to be monitored about their usage of these websites. Despite the fact that the Universities are banning the surfing of these websites in their campuses still there is a need to ban the third part softwares which help students to access these websites.

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**LEADERSHIP BEHAVIOUR OF WOMEN TEACHERS IN MADURAI DISTRICT.****Mrs. T. Meena**

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**Abstract**

A teacher needs to possess the managing or leading skills to discharge all these responsibilities. Hence every member in the school community must possess leadership skills in areas where he/she is competent and skilled. Certainly effective teaching plays a role in the life of students as leadership is directly related to the success of an organization. Many of the students today are the future leaders of tomorrow. Regardless of the subjects the teachers are certainly effective leaders who shape the lives of their students. Thus for any educational system to ensure quality education, teachers must develop skills, and everyone can benefit from using them. Leadership behaviours cannot only contribute to the achievement of group goals but also help one to grow professionally leading to personal growth and satisfaction. Leaders make difference in the world around them. Teachers are the nation builders and the destiny of the nation is shaped in the classrooms. Therefore, teachers have much more responsibility and stewardship towards building the nation. It is possible only by moulding the character and instilling values in the young ones entrusted in the hands of the teachers. Hence the teachers are called to be the leaders who are enlightened and filled with a spirit of good citizenship.

**Key words: Teacher, Quality Education, Leadership Behaviour.****INTRODUCTION**

Education in its broadest sense refers to ways in which people learn skills and gain knowledge and understand about the world and about themselves. Education is an integral part of the developmental process of an individual. The aim of education endeavours is to help one to develop one's individuality, develop all the inborn potentialities and innate capabilities and above all develop both body and mind. At the social level the major concern of education is to enable man to become a

good and useful citizen and fulfill his rights and duties for the betterment of the nation.

In the words of V.K. Rao (2003) “Quality is similar in nature to goodness, beauty and truth; an ideal with which there can be compromise; the height standard which there cannot be surpassed”. When one speak of quality education it doesn’t mean mere achievement in terms of ranks only.

### **1.1 THE TEACHER**

In the words of B.N. Dash (2006) “The teacher is the pivot of any educational system for younger students, on him rests the failure or success of the educational system”. He is the dynamic force. The teachers are the nation builders. The word “Teach” is a derivation from Anglo-Saxon word ‘Taecon’ meaning to ‘impart’, ‘to instruct’, ‘to train’, ‘to make aware of’. In otherwords, when a person who has knowledge in any field tries to pass on his/her acquired and accumulated knowledge, the process can be termed as an act of teaching. Man has been teaching so many things to his offspring viz., to live a social life, earn livelihood, lead a family life, learning social, spiritual and moral values, etc. Man has continuously been preparing the youngsters to live in the society purposefully and cohesively and meet life situations.

### **1.2 THE LEADER**

A leader is one who guides, organizes, direct and co-ordinate society. Without a leader, society cannot achieve the common goal. The development of the society should be vested in the hands of a good leader. The leader guides the actions of others or groups to accomplish the tasks.

### **1.3 SIGNIFICANCE OF THE STUDY**

Many of the students today are the future leaders of tomorrow. Regardless of the subjects the teachers are certainly effective leaders who shape the lives of their students. Thus for any educational system to ensure quality education, teachers must develop skills, and everyone can benefit from using them. Leadership behaviours cannot only contribute to the achievement of group goals but also help one to grow professionally leading to personal growth and satisfaction. Leaders make difference in the world around them.

### **1.4 STATEMENT OF THE PROBLEM**

**LEADERSHIP BEHAVIOUR OF WOMEN TEACHERS IN MADURAI DISTRICT.**

## 1.5 OPERATIONAL DEFINITIONS

The investigator adapted the following definitions for the terms used in this title.

### Leadership

The personal influence and performance one makes in the life of the others which is praise worthy and can be followed by the youngsters. An integrated person of head and heart to bring about needed social changes, political unity, emotional integration, national and international unity reflected in the personality.

### Leadership Behaviour

Leadership behaviour means the behaviour of leaders' towards his followers. Persons in different leadership positions engage themselves in specific behaviour. By this term the investigator means the leadership behaviour of high school teachers.

## 1.6 OBJECTIVES

### 1.6.1 General Objectives

Following are the objectives of the present study

To findout the level of leadership behaviour of women high school teachers. **1.6.2 Specific Objectives**

### Leadership Behaviour

- 1.1 To find out the level of leadership behaviour of women high school teachers.
- 1.2 To find out the level of leadership behaviour of high school teachers with respect to marital status.
- 1.3 To find out the level of leadership behaviour of high school teachers with respect to subject teaching.

## 1.7 DELIMITATIONS OF THE STUDY

- The present study is limited to the women high school teachers in Madurai district.
- The study has been done only on high school teachers handling 9<sup>th</sup> and 10<sup>th</sup> standard only.
- No dimension wise variable analysis has been done in this study.

## 1.8 POPULATION OF THE STUDY

The population of the study was the high school teachers in Madurai district.

## 1.9 SAMPLE FOR THE STUDY

The investigator has used random sampling technique. The sample consists of 429 women high school teachers. The sample was selected on the basis of age and subject teaching.

## 1.10 DESCRIPTION OF THE LEADERSHIP BEHAVIOUR INVENTORY

To find the leadership behaviour, the investigator has used the tool constructed and validated by the investigator (2020).

The tool contains 36 statements whose response can be used to measure the individual behaviour as a teacher and a leader. Each statement has to be answered by choosing any one of the alternatives such as Strongly agree, Agree, Undecided, Disagree and Strongly disagree.

### **Establishing validity of the tool**

To establish the validity, the tool was given to experts in the field of education to get their valuable comments. They suggested certain modifications. The investigator with the help of guide pooled the information and suggestions accordingly. Thus the content validity was established.

### **Establishing reliability of the tool**

After getting the approval of the guide, the tool was administered to 50 high school teachers randomly. The teacher's responses were scored. The same tool was administered to the same set of teachers after 15 days. The correlation co-efficient value was found as 0.78. Hence the questionnaire was found to be apt and reliable.

### **Scoring procedure**

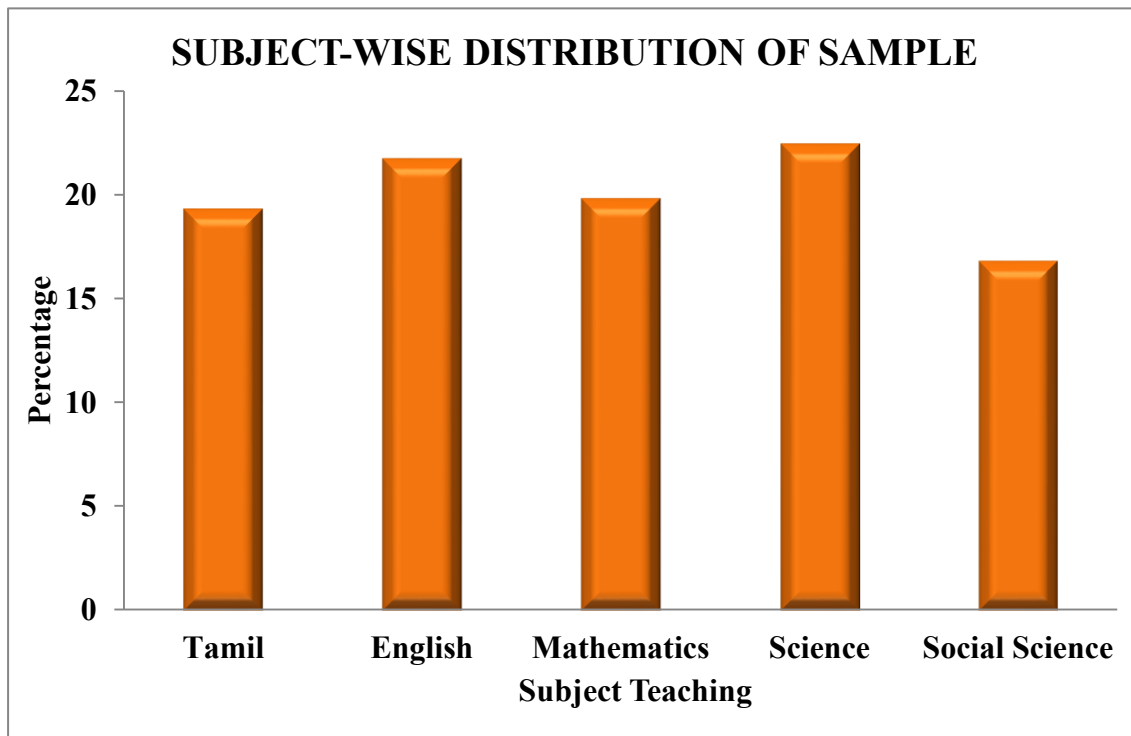
Leadership behaviour inventory is a five point scale ranging from Strongly agree, Agree, Undecided, Disagree and Strongly disagree. Since all items are positive, the scoring procedure is 5 for strongly agree, 4 for agree, 3 for undecided, 2 for disagree and 1 strongly disagree respectively.

**TABLE 1.1 SUBJECT-WISE DISTRIBUTION OF SAMPLE**

Sl.No	Subject Teaching	No. of teachers	Percentage
1	Tamil	83	19.3
2	English	93	21.7
3	Mathematics	85	19.8
4	Science	96	22.4
5	Social Science	72	16.8
<b>Total</b>		<b>429</b>	<b>100</b>

The table shows that the sample consists of 19.3% of Tamil, 21.7% of English, 19.8% of science, 22.4% of Science and 16.8% of social science high school teachers.

**FIGURE 1.1**



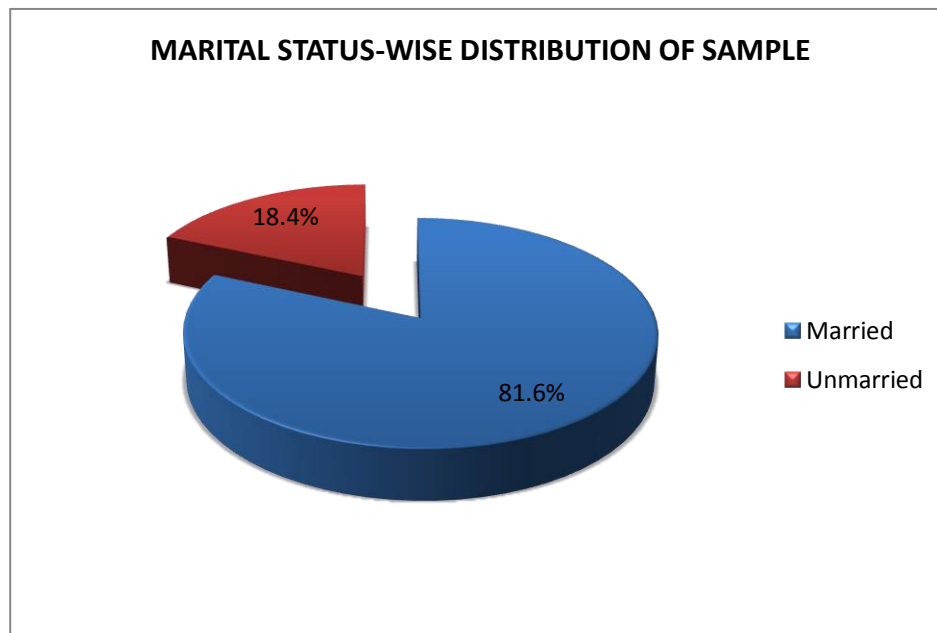
**TABLE 1.2**

**MARITAL STATUS-WISE DISTRIBUTION OF SAMPLE**

Sl.No	Marital status	No. of teachers	Percentage
1	Married	350	81.6
2	Unmarried	79	18.4
<b>Total</b>		<b>429</b>	<b>100</b>

The table shows that the sample consists of 81.6% of married and 18.4% of unmarried high school teachers.

**FIGURE 1.2**



**ANALYSIS OF THE STUDY**

**Objective 1**

To find out the level of leadership behaviour of high school teachers.

**TABLE 1.3****THE LEVEL OF LEADERSHIP BEHAVIOUR OF HIGH SCHOOL TEACHERS**

Variable	Low		Average		High	
	Count	%	Count	%	Count	%
Leadership Behaviour	107	24.9	225	54.4	97	22.6

It is inferred from the above table that 24.9% of high school teachers have low, 54.4% have average and 22.6% have high level of leadership behaviour.

**Objective 2**

To find out the level of leadership behaviour of high school teachers with respect to subject teaching.

**TABLE 1.4****THE LEVEL OF LEADERSHIP BEHAVIOUR OF HIGH SCHOOL TEACHERS WITH RESPECT TO SUBJECT TEACHING**

Subject Teaching	Low		Average		High	
	Count	%	Count	%	Count	%
English	23	24.7	52	55.9	18	19.4
Tamil	14	16.9	44	53.0	25	30.1
Mathematics	21	24.7	44	51.8	20	23.5
Science	27	28.1	50	52.1	19	19.8
Social Science	22	30.6	35	48.6	15	20.8

It is inferred from the above table that 24.7% of high school english teachers have low, 55.9% have average and 19.4% have high level of leadership behaviour.

Regarding tamil teachers 16.9% have low, 53.0% have average and 30.1% have high level of leadership behaviour.

Regarding mathematics teachers 24.7% have low, 51.8% have average and 23.5% have high level of leadership behaviour.

Regarding science teachers 28.1% have low, 52.1% have average and 19.8% have high level of leadership behaviour.

Regarding social science teachers 30.6% have low, 48.6% have average and 20.8% have high level of leadership behaviour.

### Objective 3

To find out the level of leadership behaviour of high school teachers with respect to marital status.

**TABLE 1.5 THE LEVEL OF LEADERSHIP BEHAVIOUR OF HIGH SCHOOL TEACHERS WITH RESPECT TO MARITAL STATUS**

Marital Status	Low		Average		High	
	Count	%	Count	%	Count	%
Married	85	24.3%	184	52.6%	81	23.1%
Unmarried	22	27.8%	41	51.9%	16	20.3%

It is inferred from the above table that 24.3% of married high school teachers have low, 52.6% have average and 23.1% have high level of leadership behaviour.

Regarding unmarried teachers 27.8% have low, 51.9% have average and 20.3% have high level of leadership behaviour.

**TABLE 1.6 DIFFERENCE BETWEEN MARRIED AND UNMARRIED HIGH SCHOOL TEACHERS IN THEIR LEADERSHIP BEHAVIOUR**

Marital Status	N	Mean	Standard Deviation	Calculated 't'- value	Remarks
Married	350	148.66	13.439	0.627	NS
Unmarried	79	147.59	13.631		

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between married and unmarried high school teachers in their leadership behaviour.

### Hypothesis 1

There is no significant association between subject teaching and leadership behaviour of high school teachers.

**TABLE 1.7 ASSOCIATION BETWEEN SUBJECT TEACHING AND LEADERSHIP BEHAVIOUR OF HIGH SCHOOL TEACHERS**

Subject Teaching	Calculated ' $\chi^2$ ' - value	Degrees of Freedom	Remarks
English	6.87	8	NS
Tamil			
Mathematics			
Science			
Social Science			

(At 5% level of significance the  $\chi^2$  - table value is 15.507)

It is inferred from the above table that there is no significant association between subject teaching and leadership behaviour of high school teachers.

## 5.1 FINDINGS BASED ON OBJECTIVES

### 5.1.1 Leadership Behaviour

- 1.1 19.4% of English, 30.1% of Tamil, 23.5% of mathematics, 19.8% of science and 20.8% social science high school teachers have high level of leadership behaviour.
- 1.2 23.1% of married and 20.3% of unmarried high school teachers have high level of leadership behaviour.

## 5.2 FINDINGS BASED ON HYPOTHESES

### 5.2.1 Leadership Behaviour

2.1 There is no significant difference between married and unmarried high school teachers in their leadership behaviour.

### 5.3 INTERPRETATIONS

The 'F' test reveals that there is significant difference among high school teachers who teach subject English, Tamil, mathematics, science and social science high school teachers in their decision making. While comparing the mean scores of the five groups tamil subject teachers (M=96.16) are better than English (M=91.74), mathematics (M=93.06), science (M=91.41) and social science (M=92.33) teachers. This may be due to the reason that most of the Tamil teachers are highly qualified. Most of them have completed PG with M.Phil and also some of them have Ph.D degree. So they have the high decision making capacity based on their education and experience.

### CONCLUSION]

The present study has provided comprehensive information about the leader ship behaviour of women teachers in Madurai district in the state of Tamil Nadu. A teacher needs to posses the managing or leading skills to discharge all these responsibilities. Hence every member in the school community must possess leadership skills in areas where he/she is competent and skilled. Certainly effective teaching plays a role in the life of students as leadership is directly related to the success of an organisation. As a result of the benefits of a systematic and joint approach to reducing stress there can be increased education standard, decrease in absenteeism, increased school's enrolment, reduced drop-out rate, improved teachers morale, decrease in compensation claim and reduction in workplace accidents. The study throws light on the fact that leadership behaviour is quite a personal matter and that the perception of the situation enables one to cope with it effectively.

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3. [www.springlelink.org](http://www.springlelink.org)

## INTERPERSONAL SKILLS AMONG COLLEGE STUDENTS IN TIRUNELVELI DISTRICT

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### Abstract

Soft skills play a vital role in the success of an individual's life. Interpersonal skill is one of the essential aspects of soft skills. Interpersonal skills are the level of mental and communicative algorithms applied during social communication and interaction to reach specific effects or results. It helps to understand and manage the own deep-rooted feelings and actions in social contacts. The purpose of this study to explore the interpersonal skills of college students in relation to certain personal variables. The study's main objective was to find out the interpersonal skills of college students in Tirunelveli district. Survey method was adopted in this study. The sample consisted of 300 college students selected from the Tirunelveli district for this study. Communicative Competence Scale developed by E.Michael Jeya Priya., & M.Gnana Kamali (2020) was administered to collect the data. The statistical technique used for the data analyzing were Mean, SD, 't'- test and  $\chi^2$ . The investigators found that i) there is a significant difference between male and female nuclear and joint families in their interpersonal skills among college students. ii) There is no significant difference between rural and urban social media users and social media non-users in their interpersonal skills.

**Keywords:** Soft skills, Interpersonal skill, Social communication, College students

### Introduction

Interpersonal skill is the ability to interact with people through effective listening and communication. (Ferris, Witt, & Hochwarter, 2001). Interpersonal Skills (IPS) are the life skills we use every day to communicate and interact with other people, both individually and in groups IPS (Rajesh, V.R., & Chandrasekaran, V.2014). Developing interpersonal skills is essential for students to learn better, express themselves to others, mature personality, and improve academics. Students who have good interpersonal skills have a successful career and personal life too. Here we discuss what student

interpersonal skills are and how it benefits them. The ability to communicate correctly has been one of life's basic social skills. Its significance in human life is to some extent that some of the experts attribute the human growth foundation owners of the leading personal injuries and progress to the human relationship (Hasan Siamian, Masoumeh Bagheri-Nesami, Roobabe Darvish Nia, Fereshteh Reza Nezhad, Hadise Akbari, Azita Balaghafari, Mohammad Vahdei, 2014). Students need to have interpersonal skills because it helps them to connect with others develop their personality. Generally, students learn interpersonal skills from their school life with the help of their teachers and classmates. However, still, some students lack interpersonal skills due to various reasons; mainly, their introverted nature is one of them. Social skills, social competence, people skills, soft skills, social self-efficacy, and social intelligence are just a few terms often used to describe IPS (Rajesh,V.R., & Chandrasekaran,V.2014). Today technology offers the young generation a means of expressing their views of connecting with the wide community and achieving hard skills.(Karthikeyan,S.,Malathi,S.,&Raja,V.2020). Since now a days students spend more time with their gadgets there is increasing demand for specific hard skills and mastery of specific skill sets with an emphasis on digital literacy. The aim of the present study was to know about the Interpersonal skills of college students in Tirunelveli District

### **Significance of the Present study:**

Interpersonal skills are the vital life skill which helps to interact with others effectively in a social and occupational setting. An increase in the virtual environment has hindered the growth of interpersonal skills since their face-to-face contact between peers, students, and teachers. The present 21st-century education gives more importance to the student's skills and innovative work. Students who work with high interpersonal skills can maintain their relationships, which is needed for mental and social wellbeing. **Building life skills are crucial for the students to avoid relapses and gain self-confidence.** It includes a wide variety of skills such as listening, questioning, and body language. Students with good interpersonal skills tend to work well in a team or group and with other people. Students with strong interpersonal skills are often more successful in both professional and personal skills.

### **Objectives of the Study :**

The study was designed to achieve the following objectives:

1. To find out the level of interpersonal skills among college students.
2. To find out whether there is any significant difference in college students Interpersonal Skills based on the following personal and demographic variables: (i) Gender, (ii)Medium

of Instruction, (iii) Residential Locality, and (v) Type of College

3. There is no significant association among college students in their Interpersonal Skills attitude with reference to the following background variable
- (i) Number of **birth order**.

### Hypotheses of the Study

To carry out the study the following null hypothesis are formed:

1. Interpersonal skills among college students are moderate.
2. There is no significant difference in college students Interpersonal Skills with respect to the following personal and demographic variables: : (i) Gender, (ii)Medium of Instruction, (iii) Residential Locality, (v) Type of College
3. There is no significant association among college students in their Interpersonal Skills attitude with reference to the following background variable.
  - (i) Number of **birth order**.

### Population and sample

The population includes college Students of Tirunelveli. The investigators used simple random sampling technique and randomly selected 300 college Students in Tirunelveli District.

### Statistical Techniques Used in the Present Study

Interpersonal Skill Scale was developed by Michael Jeya Priya,E., and Gnana Kamali,M.(2020). Mean, Standard deviation , ‘t’ and  $\chi^2$ ’ test were the statistical techniques used for carrying out the analysis and interpretation of the data collected. The collected data were subjected to statistical analysis. The mean and standard deviation for the variable Interpersonal Skills scores were computed for the entire sample

### Data Analysis and Interpretation

**Table.1. Showing the level of Interpersonal skills among college students**

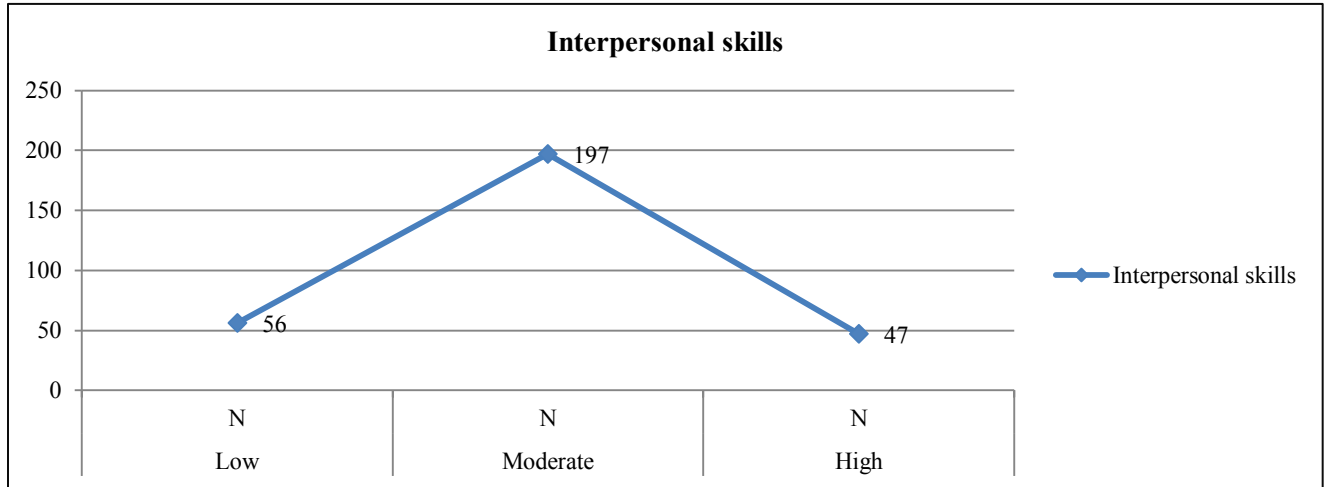
Variables	Low		Moderate		High	
	N	%	N	%	N	%
Interpersonal skills	56	37.9	197	140.0	47	40.1

### Interpretation of Table.1

The table 1 reveals that the levels Interpersonal skills among college students of Tirunelveli District range from low to high. Out of 300 college students ,56college students (40.1%) have low level of Interpersonal skills,197 college students (140.0%) have an Moderate level of Interpersonal skills, 47 college students(20.80 %) have high level of Interpersonal skills.it is

important note that a maximum number of college students 197- 140.0% )have moderate level of Interpersonal skills. Hence it is concluded that the college students of Tirunelveli district have moderate level of Interpersonal skills.

**Figure.1. Showing the level of Interpersonal skills among college students**

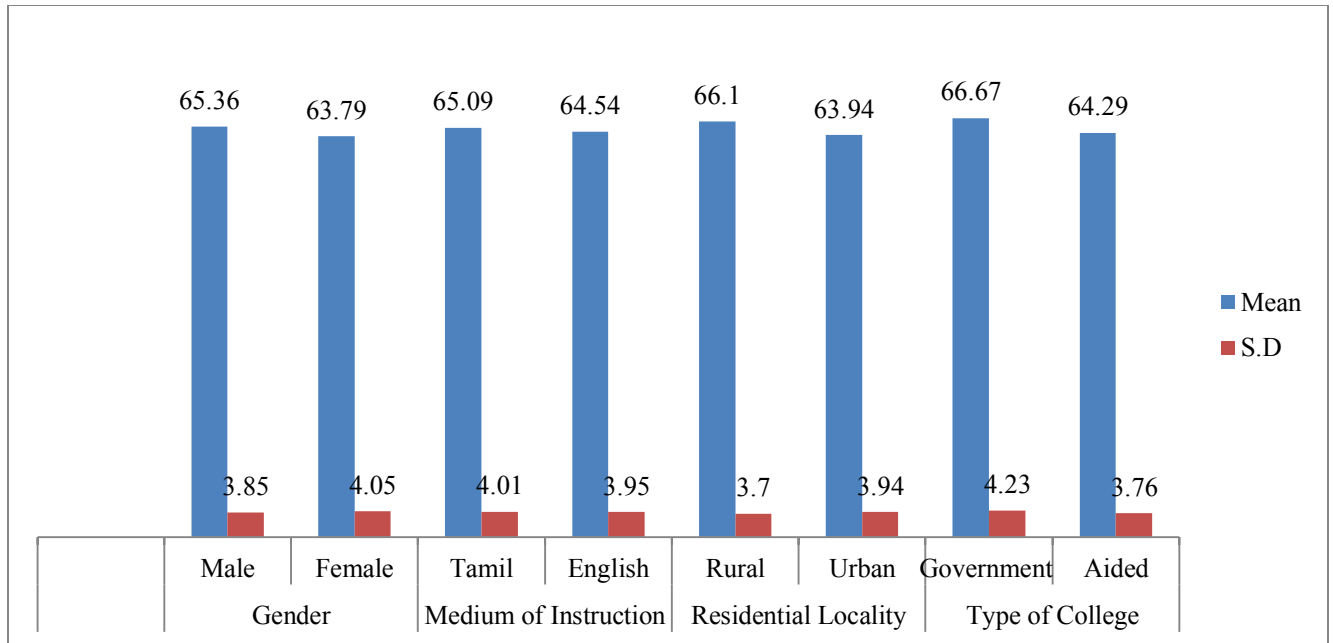


**Table.2. showing the distribution of number, mean, SD, 't' ratio and significance level of Interpersonal skills among college students**

Variables	Category	N	Mean	S.D	Calculated 't' value	Remark At 5% level
Gender	Male	195	65.36	3.85	3.27	S
	Female	105	63.79	4.05		
Medium of Instruction	Tamil	149	65.09	4.01	1.18	NS
	English	151	64.54	3.95		
Residential Locality	Rural	121	66.10	3.70	4.82	S
	Urban	179	63.94	3.94		
Type of College	Government	66	66.67	4.23	4.12	S
	Aided	234	64.29	3.76		

(at 5% level of significance the table value of 't' is 1.96)

**Figure.2. Showing the distribution of number, mean, SD, 't' ratio and significance level of Interpersonal skills among college students**



**Table.3. Showing the significant association between birth order and usage of interpersonal skills among college students**

Category	Low	Average	High	Calculated ‘ $\chi^2$ ’ Value	Remark at 5% level
First	27(25)	89(88)	33(36)	2.86	NS
Second	17(17)	61(60)	23(24)		
Third	4(6)	21(20)	11(9)		
Above Third	2(2)	7(8)	5(3)		

(At 5% level of significance, the table value for 6 df is 12.59)

**Interpretation of Table.3**

It is inferred from the above table that the calculated ‘ $\chi^2$ ’ value (2.86) is less than the table value for 6df. Hence the null hypothesis is accepted and there is no significant association between birth orders in interpersonal skills among college students

**Major Findings**

After analysis of tabulated data the investigators found out the following findings

1. There is significant difference in college students Interpersonal Skills with respect to Gender, Residential Locality and Type of College. Male students have more mean value than female students.

Rural students have more mean value than urban students. Government college students have more mean value than aided college students.

2. There is no significant difference in college students Interpersonal skills with respect to their Medium of Instruction.
3. There is no significant association between birth orders in interpersonal skills among college students.

### **Educational Implications**

1. Interpersonal skills help students in their career development, to build healthy relationship with their colleague, family relationship, job interview, social place, and social networking.
2. Students need to be taught the skills required to interact effectively in the society.
3. Stake holders-government, policy makers, educational institutions, should improve their interpersonal skills in perfect consonance.
4. Awareness about the interpersonal skills should be given to the students through various live sessions, seminars, symposium, workshop etc.
5. Students should be encouraged to participate in various debate and panel discussion to improve their skills.

### **Conclusion**

There is no single facet of our knowledge that these will not be of use, the talents that can transmute and transmit across the continuum of our life. Interpersonal skills of the students have a high impact on their life, such as socialization, college performance, and employment. Naturally, students develop their skills from their childhood, starting from their home environments. Family and peer groups place an essential role in increasing interpersonal skills among students. Since the foundation of many other skills are built-in strong interpersonal skills, the younger generation should be taught the skills required to lead their successful professional and personal lives.

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## A STUDY TOWARDS CYBER-CRIME- AWARENESS AMONG PROSPECTIVE TEACHERS

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### ABSTRACT

The main objective of the present study is to find out the cyber-crime awareness among prospective teacher in Tirunelveli district. Multi-stage sampling technique and simple random sampling technique is used for the selection of sample. The Sample consists of 400 prospective teachers in Tirunelveli district. The data was collected by Cyber Crime Awareness Scale (CCAS-RS) developed by investigators. Mean, SD, and 't' test and  $\gamma^2$  were the statistical techniques used for analyzing the data. The Present study revealed that, there was a significant difference among prospective Teachers in Tirunelveli district towards cyber crime awareness.

**Key words:** Cyber Crime, computer network, Internet

### Introduction

Cybercrime: "Any criminal offence committed against or with the help of a computer network is identified as cybercrime" (Council of Europe Convention on Cybercrime2001).

Proper cyber-crime awareness will reduce the negative impact of internet usage among the younger generation. Cybercrime incorporates anything from downloading illegal music files to stealing millions of rupees from online bank accounts. Among the numerous crimes in today's society cybercrime has become very common as well as very dangerous. The emergence of new technology has increased the number of perpetrators that take advantage of these resources to use them illegally for their own gain (Gjata 2007). Online fraud and hacking attacks are some examples of computer-related crimes that are committed on a large scale every day. As technology has become fully integrated into the lives of children, the negative effects of life online are becoming more clearly identified. Excessive time spent online can lead to increased loneliness and depression (Kraut et al., 1998; Nie & Ebring, 2000), and more the time spent in cyberspace, the more likely that children are to lose contact with their social environment (Nie & Ebring, 2002). Computers, today are being misused for unlawful activities like e-mail espionage, credit card fraud, spam, software piracy and spreading of viruses, which invade the privacy and offend the senses. Criminal activities associated with computers and internets are globally rising. Cybercrimes have risen so dramatically in recent years that they have replaced old fashioned, organized crimes (Consumer Report, 2011), Cybercrime is any criminal activity involving computers and networks, which can range from fraud to unsolicited emails (spam). It can include the distant theft of government or corporate secrets through criminal trespass into remote systems around the globe. Knowledge helps people to be more aware on

cybercrime (Levin et al., 2008). Li, (2006) stated that there are dissimilar perceptions and awareness between men and women.

**Objectives of Study in present study the objectives are as follow:-**

1. To find out the level of the Cyber crime awareness among Prospective Teachers
2. To find out the differences, if any, in the Cyber crime awareness among Prospective Teachers with respect to the following background variables
  - i) Gender, ii) Nature of Family, iii) Mode of stay iv) Location of residence v) Educational qualification
3. To find out whether there is any significant association among Prospective Teachers in their Cyber crime awareness with reference to the following background variables
  - (i) Fathers’ Educational qualification (ii) mothers’ Educational qualification.

**Hypotheses of the study**

1. Cyber crime awareness among Prospective Teachers are moderate.
2. There is no significant difference in the cyber crime awareness among prospective teachers with respect to the following background variables.
  - ii) Gender, ii) Nature of Family, iii) Mode of stay iv) Location of residence v) Educational qualification
3. There is no significant association among prospective teachers in their cyber crime awareness attitude with reference to the following background variables
  - i) Fathers’ Educational qualification (ii) mothers’ Educational qualification.

**Design of Study**

- ❖ **Methodology:** Descriptive survey method is used for study of the Cyber Crime Awareness among prospective teachers.
- ❖ **Population:** The population for the study includes all prospective teachers of Tirunelveli district.
- ❖ **Sample:** Multi-stage sampling technique and simple random sampling technique is used for the selection of sample. A sample of 400 prospective teachers is taken for the study.
- ❖ **Tool:** Cyber Crime Awareness among prospective teachers is measured by Cyber Crime Awareness Scale (CCAS-RS) developed by investigators.
- ❖ **Statistical Technique:** Mean, Standard Deviation and T-test is employed to measure Cyber Crime Awareness among prospective teachers.

**Data Analysis and Interpretation**

**Table.1. Showing the level of Cyber crime awareness among prospective teachers**

Variables	Low		Moderate		High	
	N	%	N	%	N	%

<b>Cyber crime awareness</b>	114	28.5	206	51.5	80	20.0
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### Interpretation of Table.1

The table 1 reveals that the levels Cyber crime awareness among prospective teachers of Tirunelveli District range from low to high. Out of 400 prospective teachers, (28.5%) have low level of Cyber crime awareness 206 prospective teachers (51.5%) have an Moderate level of Cyber crime awareness among 80 prospective teachers (20.0%) have high level of Cyber crime awareness . it is important note that a maximum number of prospective teachers 206-51.5%) have moderate level of Cyber crime awareness .

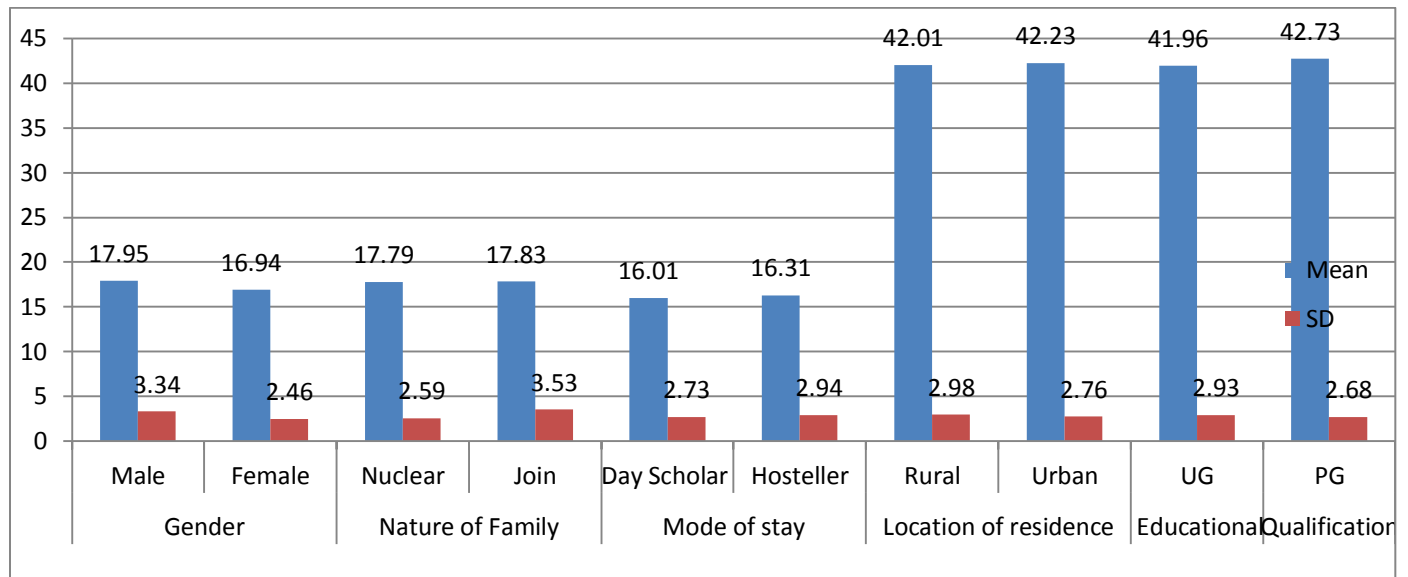
Hence it is concluded that the prospective teachers of Tirunelveli district have moderate level of Cyber crime awareness .

**Table.2. showing the distribution cyber-crime awareness among prospective teachers in Tirunelveli district**

Variables	Categories	N	Mean	SD	Calculated 't' values	Remarks
Gender	Male	53	17.95	3.34	2.09	S
	Female	347	16.94	2.46		
Nature of Family	Nuclear	127	17.79	2.59	0.11	NS
	Join	273	17.83	3.53		
Mode of stay	Day Scholar	291	16.01	2.73	0.96	NS
	Hosteller	109	16.31	2.94		
Location of residence	Rural	266	42.01	2.986	0.713	NS
	Urban	134	42.23	2.761		
Educational Qualification	UG	337	41.96	2.939	1.923	NS
	PG	63	42.73	2.689		

(at 5% level of significance the table value of 't' is 1.96)

**Figure.2. Showing the distribution of number, mean, SD, 't' ratio and significance level of cyber-crime awareness among prospective teachers**



There is significant difference between the male and female prospective teachers in their cyber crime awareness.

In the present study the mean value of male students (17.95) is greater than that of female students (16.94). This may be due to the fact that male students have high level of internet skills and internet literacy compared to female students. They utilize the social media and internet usage such as online game playing and online screening so they have protect themselves from hacking, phishing, spam, identity theft etc.

It is inferred from the table that, there is no significant difference between the nature of family, mode of stay, Location of residence and Educational qualification in their cyber crime awareness among prospective teachers.

**Table.2. Compare the association among Prospective Teachers in their cyber crime awareness.**

Variables	df	Calculated $\gamma^2$ Value	Table value	Remarks
Father's Education	6	6.287	12.592	NS
Mother's Education	6	12.023	12.592	NS

(At 5% level of significance, the table value for 6 df is 12.59)

It is inferred from the above table that the calculate'  $\gamma^2$  ' value (12.592)is less than the table value (6.287) for the df 6 at 5% level of significance. Hence the respective null

hypothesis is accepted. Thus the result shows that there is no significant association between father's educational qualification and cybercrime awareness of prospective teachers. It is inferred from the above table that the calculate'  $\gamma^2$  'value (12.592) is less than the table value (12.023) for the df 6 at 5% level of significance. Hence the respective null hypothesis is accepted. Thus the result shows that there is no significant association between mother's educational qualification and cybercrime awareness of prospective teachers.

### Conclusion

The teachers and teacher educators can inform the students about the harmful effects of using internet without sufficient preventive measures. the major stakeholders should create awareness among the students about safe internet browsing and protect themselves from harmful influence .It will result in decreasing the involvement of students in cyber crimes who do mistakes due to the lack of awareness towards cyber crime. Data are more valuable than money. Once spent, money is gone, but data can be used and reused to produce more money .So teachers and teacher educators should be fully aware regarding serious threat of cybercrime.

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**FAMILY MEDIA HABITS OF THE SECONDARY STUDENTS IN THOOTHUKUDI DISTRICT WITH RESPECT TO GENDER AND HOME ENVIRONMENT****E.Michael Jeya Priya**

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**Abstract**

Social Media usage is pervasive in young children and in parents. Family media habits can affect children's school performance. The various forms of electronic media such as including the use of television, movies, videos, computer and video games, the Internet, music, and print media plays an important role in today's life. The main objective of the present study was to find out the family media habits and academic achievement of secondary students in Thoothukudi district with respect to gender and home environment. Survey method was adopted in this study. The Sample consists of 300 XI standard students in Thoothukudi district. Family Media Habit Scale (FMHS) was developed by Michael JeyaPriya,E(2018) for collecting data. The dimensions used for the present study was 'media use', 'parental monitoring' 'consistency', 'media effects', media knowledge', and 'alternative activities'. Mean,SD, and 't' test were the statistical technique used for analyzing the data. The Present study revealed that, there was a significant difference in the family media habits of the secondary school students in the dimension 'parental monitoring' with respect to gender and there was a significant difference in the family media habits of the secondary school students in the dimension 'media use' with respect to home environment.

**Keywords:** Family media habits, Media use, Parental monitoring,Consistency, Media effects, Media knowledge, Alternative activities

**Introduction**

The New era of modern technology has a significant contribution to modern style education. The use of multimedia and graphics much more prevalent these days in every field of education (Bhavana,2016). Social media usage is more prevalent in higher education settings as instructors use technology to encourage students to take part and create thorough, detailed learning through communication, critical thinking, and collaboration (Almin,Z.,Mansoor,A.,Hussain,S.R., &Hashmat,,F.2016). The overuse of social media such as Facebook, Youtube, Twitter, and WhatsApp by the students may result in mass failure in academic achievement (David,2014). The family media habits can be categorized as media use, parental monitoring,consistency, media effects, media knowledge, and alternative activitiesStudents are more likely to be faced with temptation to surf the web, chat with friends, and visit various social media websites rather than focus on getting their school work done in time (Almin,Z.,Mansoor, A.,Hussain,S.R.,&Hashmat,F.2016). The media refers to both the printed and electronic media . Print media includes newspaper,magazine,journals, advertising, pamphlets etc. Media is considered as the part f everyday routine. Parents who influence as models to their children are on the decline as a direct or indirect result of technological advertisement and alternations in house hold economics. Aside from their busy schedules, families of todays seems to tagther around rarely becaue each member has easy access to his or her own television, telephone, computer, mobile, music players . etc. This setup would imply that children are more inclined to interact less with their parents and spend time on their own. The various forms of electronic media that we have developed during the 20th century are potent. They can benefit or harm children and communities, dependent on the usage of media. Wise use of media can help develop knowledge and

skills, as well as provide engaging entertainment. However, unwise use can be harmful. The Media Quotient research clearly shows how family media habits affect children in a variety of ways. Parents with more knowledge are better able to maximize the benefits and minimize the harm of these technologies. Media Quotient can provide that knowledge and, in addition, offer suggestions for creating a healthier media diet. Parental monitoring of media has protective effects on a wide variety of academic, social and physical outcomes (Gentile, D.A., Reimer, R.A., Nathanson, A.I., Walsh, D.A,2014).

### **Significance of the present study**

Media are also increasingly used as a means of communication and as a way to connect with others. Social networking sites, text messages, e-mails, and Internet instant messaging all facilitate communication and increase family members' sense of connectedness (Pettigrew, 2009). Students who spent much time in watching television has been linked with a lower likelihood of eating fruits and vegetables and a highly likelihood of eating junk foods (Bhavana.2016). The higher levels of screen time are associated with less sleep, more attention problems and lower academic performance and involvement (Gentile, D.A., Reimer, R.A., Nathanson, A.I., Walsh, D.A. 2014). Kubey (1990) found family conversations decreased by 40% when watching TV as compared to all other non-television activities. Dempsey (2005) also reported that families interact more when engaged in activities other than watching TV, and that for every 1 hour increase in TV viewing, adolescents spend 6 minutes less in conversation with their parents. The impact media have on family communication and connection may therefore be an important factor in understanding the relationship between media and the family. Continuous media usage by the students affect the family meal time and academic growth. Decrease in screen time will influence in sleep time, school performance, prosocial and aggressive behavior of the students. So the present study focus on the family media habits of secondary students.

### **Objectives of the study**

4. To find out the level of family media habits among secondary students.
5. To find out the differences, if any, in the family media habits of the secondary students with respect to gender in total and in different dimensions.
6. To find out the differences, if any, in the family media habits of the secondary students with respect to home environment in total and in different dimensions

### **Hypotheses of the study**

4. Family media habits of the secondary students are moderate.
5. There is no significant difference in the family media habits of the secondary students with respect to gender in total and in different dimensions.
6. There is no significant difference in the family media habits of the secondary students with respect to home environment in total and in different dimensions.

### **Population and sample**

The population for the present study was identifies as the secondary students in Thoothukudi district among the population, 300 students were selected as the sample. Simple random sampling was adopted by the investigator.

### **Statistical Techniques used in the present study**

Family Media Habit Scale (FMHS) was developed and validated by Michael JeyaPriya, E(2018) .The dimension used for the present study was media use, parental monitoring, consistency, media effects, media knowledge, alternative activities. Mean, SD, and 't' were the statistical technique used for carrying out the analysis of data.

**Data Analysis and Interpretation**

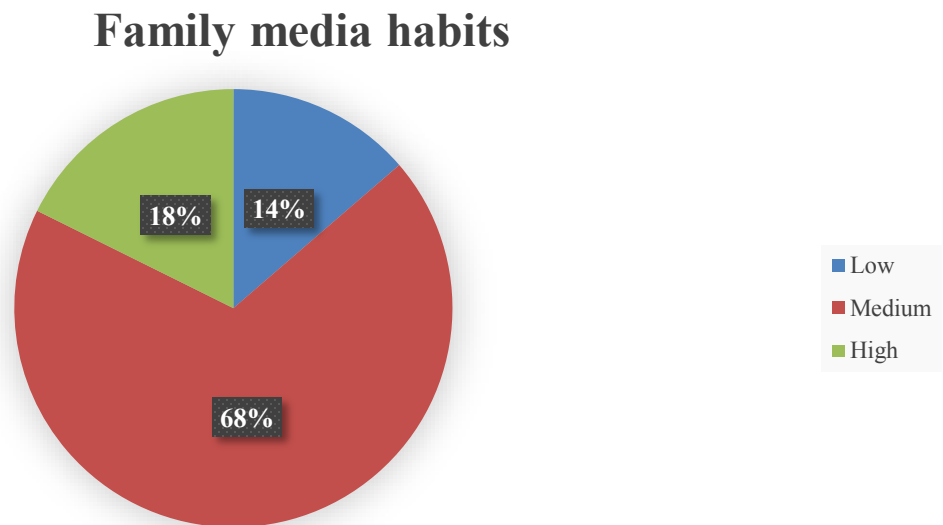
**Table -1. Showing the percentage level of family media habits of the secondary students**

Variable	Number	Low		Medium		High	
		No	%	No	%	No	%
Family Media Habits	300	41	13.67	206	68.66	53	17.67

**Interpretation of table.2.**

From the above table it is inferred that 68.66% of the secondary students have medium family media habits and 17.67% and 13.67% of the secondary students have high and low level of family media habits respectively.

**Figure.1. Showing percentage level of family media habits of the secondary students**



**Table-2. T-test showing the mean difference in Family media habits of the secondary students in different dimensions with respect to Gender**

Dimensions	Category	Number	Mean	SD	CR Value	Table Value	Remarks 0.05 level
Media use	Male	152	26.25	4.906	1.941	1.96	NS
	Female	148	27.30	4.497			
Parental Monitoring	Male	152	20.75	4.105	2.242		S
	Female	148	21.74	3.555			
Consistency	Male	152	23.89	4.095	1.373		NS
	Female	148	23.27	3.777			
Media effects	Male	152	24.16	4.751	0.460		NS
	Female	148	24.41	4.573			

Media Knowledge	Male	152	15.34	3.527	0.404		NS
	Female	148	15.17	3.617			
Alternative Effects	Male	152	25.80	5.610	0.637		NS
	Female	148	25.41	4.994			
Total	Male	152	20.75	15.437	0.651		NS
	Female	148	21.74	14.125			

**Interpretation of table.2.** It is inferred from the above table that there is no significant difference in the family media habits of the Secondary students in total and in the dimensions such as ‘media use’, ‘consistency’, ‘media effects’, media knowledge’, and ‘alternative activities’ with respect to the variable gender. But it is found that the calculated value is higher than the table value (1.96) in the dimension ‘parental monitoring’. So it is inferred that there is a significant difference in the family media habits of the secondary school students in the dimension ‘parental monitoring’ with respect to gender. The mean of the female students(21.74) are better than the male students(20.75) in the dimension ‘parental monitoring’.

Figure.2. showing the mean difference in family media habits of the secondary students in different dimensions with respect to gender.

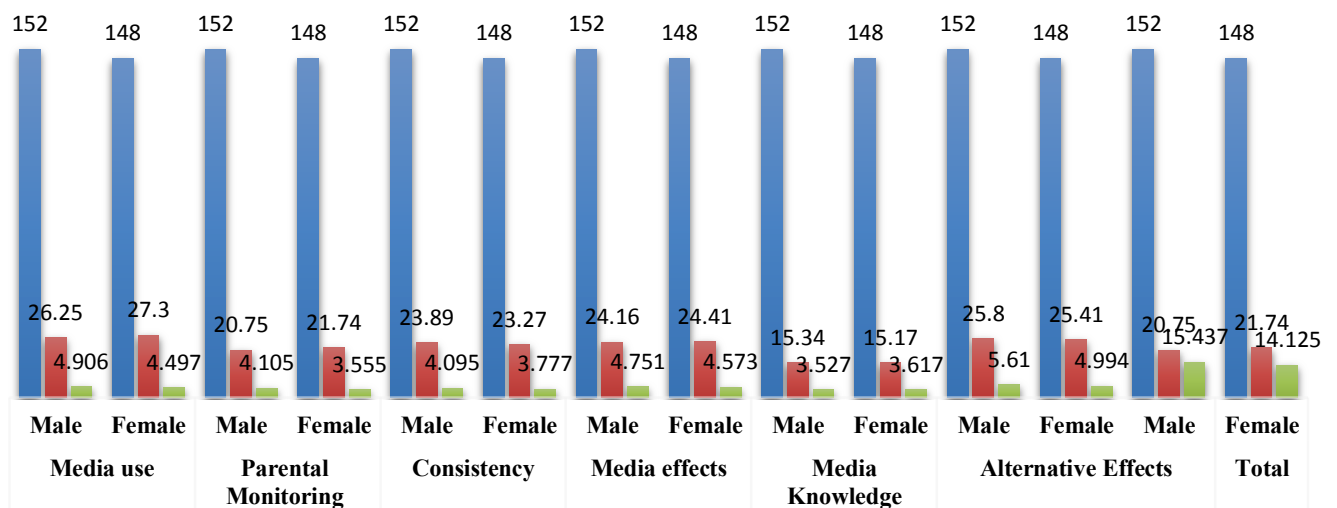


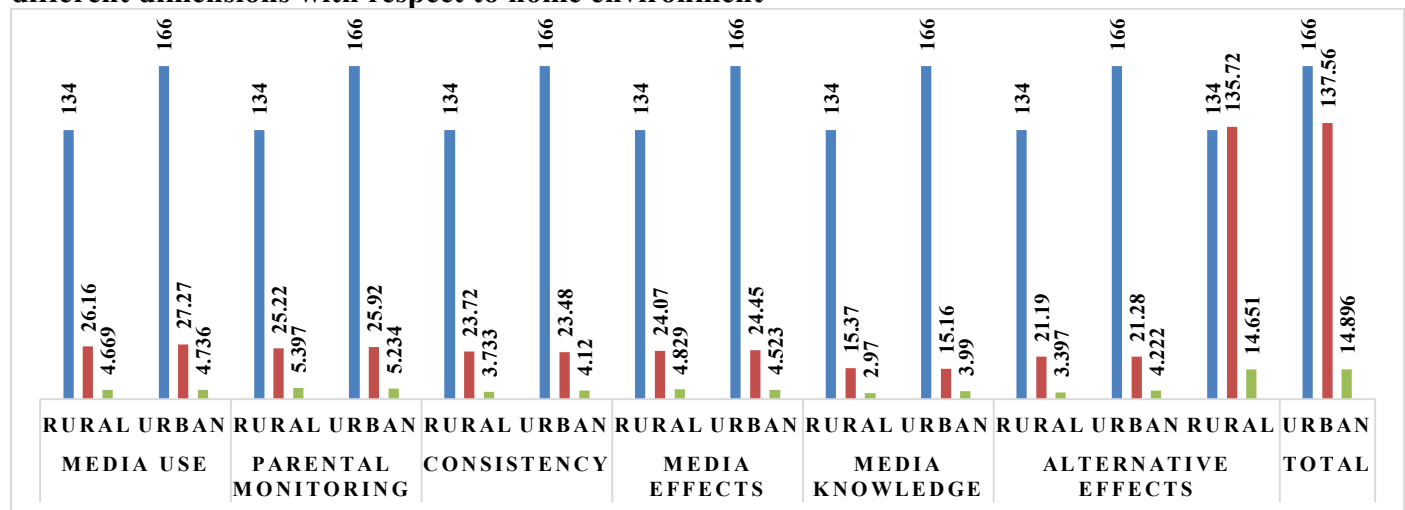
Table-2. T-test showing the mean difference in Family media habits of the secondary students in different dimensions with respect to Home environ

Dimensions	Category	Number	Mean	SD	CR Value	Table Value	Remarks 0.05 level

Media use	Rural	134	26.16	4.669	2.031	1.96	S
	Urban	166	27.27	4.736			
Parental Monitoring	Rural	134	25.22	5.397	1.129		NS
	Urban	166	25.92	5.234			
Consistency	Rural	134	23.72	3.733	0.516		NS
	Urban	166	23.48	4.120			
Media effects	Rural	134	24.07	4.829	0.681		NS
	Urban	166	24.45	4.523			
Media Knowledge	Rural	134	15.37	2.970	0.505	NS	
	Urban	166	15.16	3.990			
Alternative Effects	Rural	134	21.19	3.397	0.220	NS	
	Urban	166	21.28	4.222			
<b>Total</b>	Rural	134	<b>135.72</b>	<b>14.651</b>	<b>1.071</b>	<b>NS</b>	
	Urban	166	<b>137.56</b>	<b>14.896</b>			

**Interpretation of table.3.**It is inferred from the above table that there is no significant difference in the family media habits of the Secondary students in total and in the dimensions such as, ‘parental monitoring’, ‘consistency’, ‘media effects’, media knowledge’, and ‘alternative activities’ with respect to the variable home environment. But it is found that the calculated value is higher than the table value (1.96) in the dimension ‘media use’. So it is inferred that there is a significant difference in the family media habits of the secondary school students in the dimension ‘media use’ with respect to home environment. The mean of the urban students (27.27) are better than the rural students (26.16) in the dimension ‘media use’.

**Figure.3. showing the mean difference in family media habits of the secondary students in different dimensions with respect to home environment**



**Major findings of the present study**

1. Family media habits of the secondary students are moderate.
2. There is no significant difference in the family media habits of the Secondary students in total and in the dimensions such as 'media use', 'consistency', 'media effects', 'media knowledge', and 'alternative activities' with respect to the variable gender.
3. There is no significant difference in the family media habits of the Secondary students in total and in the dimensions such as, 'parental monitoring', 'consistency', 'media effects', 'media knowledge', and 'alternative activities' with respect to the variable home environment.
4. There is a significant difference in the family media habits of the secondary school students in the dimension 'media use' with respect to home environment.
5. There is a significant difference in the family media habits of the secondary school students in the dimension 'parental monitoring' with respect to gender.

**Conclusion**

Social media, which is an essential product of Computer and Internet Technologies, has a growing usage level day by day. Family media habits involve the media use, 'parental monitoring', 'consistency', 'media effects', 'media knowledge', and 'alternative activities'. The increase in sophistication reflects a change in the student's mind, interest, and understanding. Nowadays, students are more active in social media; proper monitoring will help to guide the students in the appropriate media usage. Proper media habits should be trained even from the early stage of school life itself, which allows them to think about the pros and cons of the media. High levels of Internet users have been associated with lowered time spent with other human beings, lower communication, and increased depression and loneliness. So student's soft skills should be improved to increase their self-confidence to face the society. So proper healthy media diet will help the students to focus on their studies without any distraction, aggressive attitudes, and fear.

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## IMPACT OF SOCIAL MEDIA ON EMOTIONAL WELLNESS

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### ABSTRACT

Social media is a catch-all term for a variety of internet applications that allow users to create content and interact with each other. People who are emotionally healthy are in control of their thoughts, feelings, and behaviors. They are able to cope with life's challenges. It helps them to interact with other people and contribute productive work to society. **Social media interactions can help decrease negative emotions and boost emotional well-being.** But using social media has its risks. Hence this paper focuses on overview of social media and emotional wellness, its effectiveness, impact and emotional benefits of using social media

Key Words: Social media, effectiveness, interaction, relaxation, self-care, inner strength

### INTRODUCTION

Social media has gotten a bad rap lately: it's been blamed for growing feelings of low self-esteem, loneliness, and bouts of depression. Still, people rally behind their beloved Instagram's, Face book's, and Snap chat's or they at least keep signing on. They insist that they've either adapted healthier user habits or that social media doesn't have a negative impact on them at all, instead it's a positive influence on their everyday lives, they say. Social media allows to stay connected with distant friends and relatives and it can be used to promote positive and productive ideas; it can serve as a creative outlet.

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### EMOTIONAL WELLNESS:

Emotional wellness inspires self-care, relaxation, stress reduction and the development of inner strength. It is important to be attentive to both positive and negative feelings and be able to understand how to handle these emotions. Emotional wellness also includes the ability to learn and grow from experiences. Emotional well-being encourages autonomy and proper decision making skills. It is an important part of overall wellness.

### SOCIAL MEDIA

Social media is the collective of online communications channels dedicated to community-based input, interaction, content-sharing and collaboration. Websites and applications dedicated to forums, micro blogging, social networking, social bookmarking, social curation, and wikis are among the different

types of social media. Social media is becoming an integral part of life online as social websites and applications proliferate.

## EMOTIONAL BENEFITS OF USING SOCIAL MEDIA

Social media interactions can help decrease negative emotions and boost emotional well-being. The researchers found that people who feel nervous during one-on-one conversations find refuge in social media especially during trying times. “When people feel badly, they have a need to reach out to others because this can help reduce negative emotions and restore a sense of well-being. But talking to someone face-to-face or on the phone might feel daunting because people may worry that they are bothering them,” explained **Eva Buechel**, a professor at the University of South Carolina. **Buechel** explains social media can be beneficial especially for the socially apprehensive: “There is a lot of research showing that sharing online is less ideal than having communication in person, but these social networks could be an important communication channel for certain individuals who would otherwise stay isolated.”

## SOCIAL MEDIA CAN BE DETRIMENTAL TO EMOTIONAL HEALTH

Some of the undesirable effects of social media on emotional health are:

- **Depression:** The young adults spend longer time on social media, the more likely they are to be depressed because of the false lives they create and curate online.
- **Loss of Focus:** The feeling of people get from likes and comments on their posts is addictive, and this Pavlovian-like conditioning makes them go back again and again to ring that proverbial bell. Over time, people lose focus, changing the way their brain works so they can't give full concentration to longer form task
- **Prevalence of Eating Disorders:** The young adults who spent the most time on highly visual social media had over two times the risk of eating and body image concerns.
- **Bye to Memories:** peoples are losing their memories when they trust digital devices to store information and remember things for them.

## EFFECT OF SOCIAL MEDIA ON EMOTIONAL HEALTH

- **Relieve social isolation and loneliness by opening up new communication pathways.** Social media offers the chance to connect with others, and offers enough anonymity to allow people with **emotional illness** to express themselves without revealing their identities. In other words, it allows self-expression without the danger of **stigma**.
- **Inspire healthy lifestyle changes.** Social media can be used as a motivational tool to achieve healthy lifestyle goals such as quitting smoking or attending the gym on a regular basis.

Announcing a goal via social media and regularly posting about it promotes accountability to others, creating positive reinforcement from friends and stimulating an online “social support system” which may lead the aspirant to form or join other communities dedicated to similar pursuits. This is a classic case of “positive emotional contagion.”

- **Make social support and interventions possible.** An increasing number of websites are now offering support through social media channels. These sites often provide anonymous forums for people to connect, share personal experiences, and many even allows them to sign up for an SMS service to receive daily advice, motivational messages, and information useful for seeking or promoting recovery.
- **Build community by Joining Local Meetups.** Meetup is one of the most popular and widely used. Meetup is not the only place to connect with local organizations, groups, and clubs, or to network with people having similar interests. Twitter has a feature called Tweetups, which are face-to-face meetups that are organized online involving people with similar interests. These may range from people who share a love of playing bridge to groups of recovering addicts.
- **Strengthen existing relationships.** Social media can help manage relationships, especially with those who live far away from each other, thus breaking down geographical barriers. Far from increasing isolation, social media can provide alternative means of finding support, even helping to lift depression, and as Tweetups have shown, provide a healthy excuse to go outside rather than stay cooped up indoors or hunched over a computer.
- **Provide teens with opportunities to develop technical and other skills needed to function in society.** More and more young people are turning to the internet for health advice, including topics such as contraception, acne treatments, etc. Many teens will post online what they are reluctant to share with their parents. For troubled youth, this makes early intervention by concerned friends and peers more possible. For others, it provides a rich opportunity to experiment with different modes of creative self-expression, which is in itself therapeutic. While it is impossible to deny the dangers of social media, parents may choose to focus on the positive uses of online media in order to promote better online habits in their children.

### **IMPACT OF SOCIAL MEDIA ON EMOTIONAL WELLNESS**

Social media can have positive and negative impact on emotional wellness:

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- **Negative Impacts:** Most people who use social media want to put their best foot forward. Often, this means they are presenting a skewed view of their life that is all about happiness and achievements. This can lead their friends to compare their own lives to this "perfect" scenario which can have a negative impact on their emotional well-being.
- **Positive Impacts:** Social media could be used to spread happiness. Posting happy, encouraging, and uplifting posts may lead others to do the same. The original goal of social media sites was to create an easy way for people to connect to others. This is a good tool for friends or family who don't live nearby to keep up with what is happening.  
Another positive impact could be the ability to help identify certain emotional illnesses. One in particular is social anhedonia which is the inability to enjoy normally enjoyable activities.

**CONCLUSION**

From the above, it is concluded that emotionally healthy does not mean they are happy all the time. It means they are aware of their emotions. They know how to manage their negative feelings. Social media may help improve emotional health by boosting self-esteem and providing a source of emotional support.

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## **The Impact of Stress and the ways to Manage it effectively**

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### **Introduction:**

Stress is our body's response to pressure. Many different situations or life events can cause stress. It is often triggered when we experience something new, unexpected or that threatens our sense of self, or when we feel we have little control over a situation. There are circumstances in which stress can be good, and it can also have negative consequences on the body. Stress, in everyday terms, is a feeling that people have when they are overloaded and struggling to cope with demands. These demands can be related to finances, work, relationships, and other situations, but anything that poses a real or perceived challenge or threat to a person's well-being can cause stress. Stress can be a motivator. It can be essential to survival. The "fight-or-flight" mechanism can tell us when and how to respond to danger. However, if this mechanism is triggered too easily, or when there are too many stressors at one time, it can undermine a person's mental and physical health and become harmful. Short-term stress can be helpful, but long-term stress is linked to various health conditions.

### **What is Stress?**

Stress means pressure or strain. Life constantly subjects us to pressures. In people, stress can be physical (e.g., disease), emotional (e.g., grief), or psychological (e.g., fear). Stress is the body's natural defense against predators and danger. It flushes the body with hormones to prepare systems to evade or confront danger. This is known as the "fight-or-flight" mechanism.

When we are faced with a challenge, part of our response is physical. The body activates resources to protect us by preparing us either to stay and fight or to get away as fast as possible. The body produces larger quantities of the chemicals such as cortisol, adrenaline, and noradrenaline. These trigger an increased heart rate, heightened muscle preparedness, sweating, and alertness. All these factors improve the ability to respond to a hazardous or challenging situation. Factors of the environment that trigger this reaction are called stressors. Examples include noises, aggressive behaviour, a speeding car, scary moments in movies, or even going out on a first date. The more stressors we experience, the more stressed we tend to feel. Individuals vary in their ability to cope with stress.

**Bodily changes due to Stress:** Stress slows normal bodily functions, such as the digestive and

immune systems. All resources can then be concentrated on rapid breathing, blood flow, alertness, and muscle use.

The body changes in the following ways during stress:

- blood pressure and pulse rate rise
- breathing is faster
- the digestive system slows down leading to stomach ache or diarrhea
- immune activity decreases
- Increase in appetite, which can lead to weigh gain.
- the muscles become tense
- Memory and decision-making are also affected
- a heightened state of alertness prevents sleep

How we react to a difficult situation will affect how stress affects us and our health. A person who feels they do not have enough resources to cope will be more likely to have a stronger reaction, and one that can trigger health problems. Stressors affect individuals in different ways. Some experiences that are generally considered positive can lead to stress, such as having a baby, going on a trip, moving to a nicer house, and being promoted. This is because they often involve a major change, extra effort, new responsibilities, and a need for adaptation. They are also stepping into the unknown. The person wonders if they will cope. A persistently negative response to challenges can have a detrimental effect on health and happiness. However, being aware of how you react to stressors can help reduce the negative feelings and effects of stress, and to manage it more effectively.

### **Types of Stress:**

**Acute stress:** This type of stress is short-term and is the most common way that stress occurs. Acute stress is often caused by thinking about the pressures of events that have recently occurred, or upcoming demands in the near future. For example, if you have recently been involved in an argument that has caused upset or have an upcoming deadline, you may feel stress about these triggers. However, the stress will be reduced or removed once these are resolved. Short-term effects include tension headaches and an upset stomach, as well as a moderate amount of distress. However, repeated instances of acute stress over a long period can become chronic and harmful.

**Episodic acute stress:** People who frequently experience acute stress, or whose lives present frequent triggers of stress, have episodic acute stress. A person with too many commitments and poor organization can find themselves displaying episodic stress symptoms. These include a tendency to be

irritable and tense, and this irritability can affect relationships. Individuals that worry too much on a constant basis can also find themselves facing this type of stress. This type of stress can also lead to high blood pressure and heart disease.

**Chronic stress:** This is the most harmful type of stress and grinds away over a long period. Ongoing poverty, a dysfunctional family, or an unhappy marriage can cause chronic stress. It occurs when a person never sees an escape from the cause of stress and stops seeking solutions. Sometimes, it can be caused by a traumatic experience early in life. Chronic stress can continue unnoticed, as people can become used to it, unlike acute stress that is new and often has an immediate solution. It can become part of an individual's personality, making them constantly prone to the effects of stress regardless of the scenarios they come up against. People with chronic stress are likely to have a final breakdown that can lead to suicide, violent actions, heart attacks, and strokes.

#### **Common causes of Stress:**

Some of the common reasons affecting most of us are worry and fear regarding:

- Career or business
- Finance
- Health of family members or self
- Relationships
- Prestige
- Fear of ignominy or failure

Other factors that can cause stress are:

- Suppressed anger
- Frustration
- Boredom
- Despair and hopelessness
- Loss of status

#### **Symptoms of Stress:**

Feelings commonly related with short-term stress are anxiousness, nervousness, distraction, worry, and pressure. If your stress level increases or lasts for a longer time, you might experience other physical or emotional effects:

- Constant fatigue, depression and general lack of energy.

- Chest pain or pressure, rapid heartbeat
- Dizziness, shakiness, difficulty breathing
- Menstrual cycle irregularities, erectile dysfunction (impotence), loss of libido (sex drive)

These symptoms may also lead to loss of appetite, overeating and poor sleep, all of which can have serious consequences for your health. Usually, these symptoms are minor and may be relieved through coping skills such as learning to relax, removing yourself for a time from the things that stress you out, and exercising. If the symptoms are severe, however, you may need to seek medical help to be able to identify the source of your stress and the best way to manage it.

### **How to manage stress?**

\*Exercise: Studies have shown that exercise can benefit a person's mental and physical state.

\*Reducing intake of alcohol, drugs, and caffeine: These substances will not help prevent stress, and they can make it worse. They should be cut out or reduced

\*Nutrition: A healthy, balanced diet with plenty of fruit and vegetables helps maintain the immune system at times of stress. A poor diet will lead to ill health and additional stress.

\*Prioritizing: Spend a little time organizing your to-do list to see what is most important. Then focus on what you have completed or accomplished for the day, rather than what you are yet to finish.

\*Time: Set aside some time each day just for yourself. Use it to organize your life, relax, and pursue your own interests.

\*Breathing and relaxation: Meditation, massage, and yoga can help. Breathing and relaxation techniques can slow down the system and help you relax. Breathing is also a central part of mindfulness meditation.

\*Talking: Talking to family, friends, work colleagues, and your boss about your thoughts and worries will help you "let off steam." You may be comforted to find that you are "not the only one." You may even find there is an easy solution that you had not thought of.

\*Acknowledging the signs: A person can be so anxious about the problem that is causing the stress that they do not notice the effects on their body.

\*Noticing symptoms is the first step to taking action: People who experience work stress due to long hours may need to "take a step back." It may be time to review their own working practice or to talk to a supervisor about reducing the load.

\*Find your own de-stressor: Most people have something that helps them relax, such as reading a

book, going for a walk, listening to music, or spending time with a friend or a pet. Joining a choir or a gym helps some people.

\* Happiness: Happiness is unique to human beings. It does not come from any outside source. It can come only from within you. A happy man will always retain control over his happiness by consciously keeping a positive outlook. Knowing that something good will come out.

\*Establishing support networks: The APA (American Psychological Association) encourage people to develop networks of social support, for example, by talking to neighbours and others in the local community, or joining a club, charity, or religious organization.

Even if you are not feeling stressed now, being part of a group can prevent stress from developing and provide support and practical help when hard times come. Online social networking can help, as long as it does not replace face-to-face contact. It can allow you to stay in touch with friends and family who are far away, and this can reduce anxiety. If the stress is affecting your daily life, you should seek professional help. A doctor or psychiatric specialist can often help, for example, through stress management training.

### **Stress Management Techniques:**

Stress management can help to:

- remove or change the source of stress
- alter the way you view a stressful event
- lower the impact that stress might have on your body
- learn alternative ways of coping

### **Conclusion:**

Stress is a central concept for understanding both life and evolution. Since stress is a vital force of our life system, inherited through millions of years of evolution, we need not make any effort to get rid of stress, because such an attempt would be futile. Till we are alive, there would always be a stress factor ingrained in our body system. In fact, it is essential for our life. What is required is that the stress should be positive, conducive to our survival. It should not be negative, which is harmful for us. No living person can be totally without stress. Stress would be there within us most of the time. However, it is very important to know when negative stress has gone too far and begun hurting instead of protecting us, and when this is known, we must act to control stress without fear of anything and seek the joy of life to the brighter side.

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## PHYSICAL ACTIVITY INTERVENTION ON MANIPULATIVE SKILLS AMONG SCHOOL CHILDREN AGED 8-12YEARS

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### Abstract

**Context:** physical education teachers often report that physical activity has an uplifting effect on their motor skills. **Objective:** To examine the physical activity intervention on manipulative skills among school children aged 8-12 years. **Design:** Young adults were randomly assigned to a physical activity intervention or wait-list control group. **Setting:** school campus, playground. **Participants:** Twenty healthy children ages 8 to 12 were selected from little flower public school, Tirunelveli, Tamilnadu, India. At intake, all participants were experiencing physical activity at every day in physical education period. **Intervention:** Subjects in the experimental group attended two 60mins of physical activity classes for 3day per each for 6 consecutive weeks. **Main Outcome Measures:** Manipulative skills such as a Throwing and Throwing & Catching is measured with MOBAK-3 Basic motor competencies in third grade. **Results& Conclusion:** Subjects who participated in the physical activity course demonstrated significant improvement on Throwing and Throwing & Catching. These effects emerged by the 6Weeks of physical activity intervention. Also mean value indicate experimental group are better than control group. These findings provide suggestive evidence of the utility of physical activity in improving manipulative skills.

**Keywords:** Manipulative Skill, MOBAK-3 Test manual, School Children.

### Introduction

Physical activity is essential to the early growth of each child and affects many aspects of a child's well-being (King, Lawm, King, Rosenbaum, Kertoy, & Young, 2003). Even though early childhood is a critical period to stimulate physical activity, the long-term health benefits of being physically active from early ages have yet to be confirmed (Timmons, LeBlanc, Carson, Connor Gorber, Dillman, Janssen, I., & Tremblay, 2012). It is advised that promoting physical activity in early childhood may help improve Fundamental Movement Skills (FMS) (Timmons, Naylor, & Pfeiffer, 2007).

FMS means terms are often used interchangeably. FMS (also termed Fundamental Motor Skill) are defined as basic learnt movement patterns that do not occur naturally and are suggested to be foundational for more complex physical and sporting activities. They can be classified into three distinct categories: locomotion (involving locomotion of the body e.g., running), object control (manipulative skills e.g., catching a ball) and stability skills such as balancing (Gallahue, Ozmun, & Goodway, 2012).

Manipulative skill is an important basic ability for children, because it will help them to give some basic ideas and abilities before they go and learn for the more complex skill in the specific sport (Al Ardha, Yang, Adhe, Putra, Khory, & Harianto, 2018).

Skill performance is essential for successful participation in game and sportplay (Rink, 1993), as well as for negotiating environments that need highly sophisticated movements (e.g., the military, theater acting, construction) (Rink, 1993; McKenzie, Alcaraz, Sallis, & Faucette, 1998).

Object control is a skill prerequisite in game and sport forms commonly available to children both at school and in the community (e.g., baseball, basketball, soccer, softball) (McKenzie, Alcaraz, Sallis, & Faucette, 1998). It has been shown that children must master object control before they can use specific manipulative skills successfully in game strategies (Turner, & Martinek, 1992)

A student's ability to manipulate scientific apparatus is an important issue. A study conducted in United Kingdom found that students not only lack appropriate manipulative skills but also lack confidence in conducting practical work due to a lack of practice (Fadzil, & Saat, 2014).

The present investigation focused on manipulative skills development through providing physical activity environment to the children. Children's ability to catch, throw, bounce and dribble a ball were assessed in the present study.

## METHODS

**Setting and School**

The investigation was conducted in a Little Flower Public School, Tirunelveli, Tamil Nadu, India. School Principal agreed to participate their school children in an experimental physical education program. Two condition (group) were randomly selected from the school. In the first condition The credentialed physical education Teacher given addition training in the intervention methods by the investigators and certified Motor Skill learning Coach were employed by Centre for Special and Movement Education, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu. In the Second Condition was Control or regular Physical Education Programme, no attempt was made to interfere with their ongoing Physical Education programme.

**Physical activity intervention**

Subjects in the physical activity group attended 60 mins of physical activity classes each week for 6 consecutive weeks. Classes were held in the regular Physical education period at a school campus. The classes emphasized with Specific Physical activity that improve the motor skills. Classes ended with relaxation exercise. All subjects were taught the same workouts. Subjects were not encouraged to practice at home.

**Control Group**

Investigator asked control group to continue with their regular physical education programme, which were commonly taught by classroom teachers. Also Investigator requested not to begin new physical education initiatives with participants during the study.

**Participants**

In the study participants were selected by stratified randomly sampling method. Twenty (N=20) participants were selected for this study. Their age range from 8 to 12 (mean age = 10.5, SD = 3.23). The subjects were taken equally girls (50%) and boys (50%). The participants were randomly divided into two groups namely experimental and control group each group consists of (n=10) participants. There is no breakdown during the training period. Participants were tested twice before and after the training period.

**Skill Testing**

Two manipulative Skill (Throwing and Throwing&catching) were tested by MOBAK-3 Basic motor competencies in third grade. (Herrmann, &Seelig, 2015)

**Throwing:**

Throwing ability was calculated based on children ability a target is placed at a 1.30 m height. A scratch line is placed 3.0 m away from the target at least two of the six trails.

**Throwing and catching:**

Two lines at a distance of 1.5 m are marked with ground markings, e.g. free-throw line and throw circle. The child throws a ball in the air behind the first line, follows the ball and catches it behind the second line.

**Scoring Procedure:**

Each child has six attempts at each test item (no trials). Each hit or passed attempt is recorded. 0–2 hits or passed attempts are assessed with 0 points, 3–4 hits or passed attempts with 1 point, and 5–6 hits or passed attempts with 2 points.

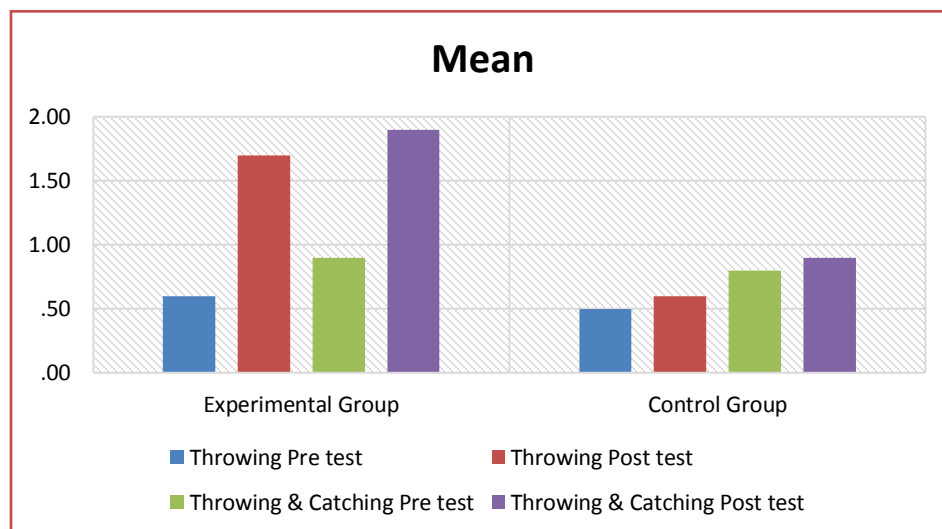
**Statistical Tools**

Descriptive and t test were used to find the significant improvement between pre and posttest. ANCOVA were used to find the significant difference between experimental and control group. Level of significance were fixed as 0.05 to test. SPSS 20.0 version were used to calculate the data.

**Analysis of the Data:** Table 1.1: Summary of Mean & Standard deviation value

Variable	Test	Experimental Group			Control group		
		Mean	N	SD	Mean	N	SD
Throwing	Pre test	0.60	10	0.52	0.50	10	0.71
	Post test	1.70	10	0.48	0.60	10	0.52
Throwing & Catching	Pre test	0.90	10	0.57	0.80	10	0.42
	Post test	1.90	10	0.32	0.90	10	0.32

Figure 1: Pre and posttest means of Experimental group and control group on Manipulative



skills

## 4.2 Paired sample t test comparing pre and posttest in each group

variables	Experimental Group			Control Group		
	t	df	P value	t	df	p value
Throwing	11.00*	9	0.000	0.56	9	0.59
Throwing & catching	6.71*	9	0.000	1.00	9	0.34

\*Significant of.05 level. Table value required for significant with df 9 is 2.262

**Experimental Group:** The paired sample t' test was computed on selected dependent variables. The results were presented in the above Table 4.2. The P value for Throwing = 0.000, and Throwing & Catching = 0.000 respectively. All the P values are less than the 0.05 level of Significant. The result of the study shows that experimental group significantly improved the abilities of all the selected dependent variables.

**Control Group:** The paired sample t' test was computed on selected dependent variables. The results were presented in the above Table 4.2. The P value for Throwing = 0.59 and Throwing & Catching = 0.34 respectively. All the P values are higher than the 0.05 level of Significant. The result of the study shows that control group had no significantly improvement the abilities of all the selected dependent variables.

## 4.3 Adjusted posttest mean value &amp; Analysis of covariance (ANCOVA) on selected dependent variable

Variable	Adjusted Post-test mean		Sum of Squares	df	Mean Square	F	P value
	Experimental Group	Control Group					
Throwing	1.67	0.63	5.42	1	5.42	38.28*	0.000
			2.41	17	0.14		
Throwing &	1.88	0.92	4.58	1	4.58	67.23*	0.000
			1.16	17	0.07		

\*Significant at .05 level. Table value required for significance at 0.05 level with df 1 and 17 was 4.45.

The obtained One way analysis of covariance (ANCOVA) was Throwing = 38.28 and Throwing & Catching = 67.23 respectively. The obtain P value for Throwing =  $0.000 < 0.05$  and Throwing and Catching =  $0.000 < 0.05$ . It indicates that the obtain p value is less than the 0.05 level. It shows that there is significant difference between experimental and control groups on selected dependent variables.

### **Discussions on findings**

The findings clearly show that improvement in the Manipulative skills of the children due to the effect of the physical activities on the various systems of their body. Physical activities are believed to bring about desirable changes in the human systems. Here the physical activities had helped the children for the betterment in the Manipulative areas.

McKenzie, Alcaraz, Sallis, &Faucette, (1998). Effects of a physical education program on children's manipulative skills. The results indicate that children's manipulative skills can be improved by quality physical education programs delivered by PE specialists and classroom teachers with substantial training.

Goodway, Crowe, & Ward, (2003). Effects of motor skill instruction on fundamental motor skill development. The intervention group performed significantly better than the comparison group from pre to posttest for both locomotor and object control skills. Additionally, this group had significantly higher posttest scores than the comparison group.

### **Conclusions:**

1. There is significant improvement between pre and posttest mean on Throwing, and Throwing & Catching due to 6 weeks of Physical activity training.
2. Also Control group had no improvement on all the selected dependent variables.
3. However there is significant difference between experimental and control group on selected dependent variables.

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**Crystalline, IR Spectral, Thermogravimetric Studies of  $\text{NH}_4\text{K}_2\text{Zn}(\text{SO}_4)_2$  Crystal****Dipunadas C.N<sup>1</sup>, D.Shiney Manoj<sup>1</sup>, Sajikumar A.C<sup>1</sup>, G.J.Shyju<sup>1</sup>,****Aswathy Sudhakar.S<sup>2</sup>, V. Bena Jothy<sup>3</sup>**<sup>1</sup> Department of Physics, Christian College, Kattakada<sup>2</sup> Department of Chemistry, Christian College, Kattakada,<sup>3</sup> Department of Physics and Research Centre, Women's Christian college, NagercoilEmail: [dipunaabynraj@gmail.com](mailto:dipunaabynraj@gmail.com)**ABSTRACT**

Crystal grown from mixing ammonium sulphate, potassium sulphate and zinc sulphate in distilled water was found to be a single crystal Ammonium potassium zinc sulphate hydrate  $\text{NH}_4\text{K}_2\text{Zn}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ . Evaluation of crystal composition was attained by powder crystal diffraction and the resolved structure was monoclinic. Cell parameters of the monoclinic unit cell have been determined from the powder diffraction patterns. Vibrational modes of different groups of the synthesized salt are confirmed using IR spectroscopy. Stability of the synthesized triple salt is evaluated by thermo gravimetric analysis.

**KEYWORDS:** Triple salt, XRD, Infrared, Thermo gravimetry,**1. INTRODUCTION**

Tutton salts are a class of salts with formula  $\text{MM}'(\text{SO}_4)_2(\text{H}_2\text{O})_6$  (sulfates) or  $\text{MM}'(\text{SeO}_4)_2(\text{H}_2\text{O})_6$  (selenates). These materials are double salts, which means that they contain two different cations,  $\text{M}^+$  and  $\text{M}'^{2+}$  crystallized in the same regular ionic lattice.[1]. Univalent cation can be potassium, rubidium, cesium, ammonium ( $\text{NH}_4$ ). Divalent cation can be magnesium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc or cadmium. Triple Salts are regarded as a molecular combination of three distinct salts rather than a coordination complex. Research sample  $(\text{NH}_4)_2\text{K}_2\text{Zn}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$  the family of triple salt [2,3] are the combination of metal salts – Zinc and potassium as well as Ammonium, the univalent radical generally form water-soluble compounds. The purpose of research work is to find out whether the research compound has an application either in electrical field, farmer's field or in pharmaceutical field. In this present work, we report the synthesis of Triple salts with formula  $(\text{NH}_4)_2\text{K}_2\text{Zn}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ . Several techniques of characterization of the compound have been used.

**2.1 Experimental Techniques**

**Preparation for Crystallization:** Title compound was synthesized using the reaction of 50ml each 1M solutions of Zinc sulphate, 25ml potassium sulphate, 25ml ammonium sulphate solutions were mixed well. Triple salts formed after few days as white colored crystal and were qualitatively tested for constituent cations and anions, which were positive. Triple salt was dried in a desiccator and powdered well. It was evaporated and crystals of triple salts were obtained having white color. It was directly dried in a desiccator and powdered well.

**Crystalline study:** It is the most powerful technique for determining crystal and molecular structures

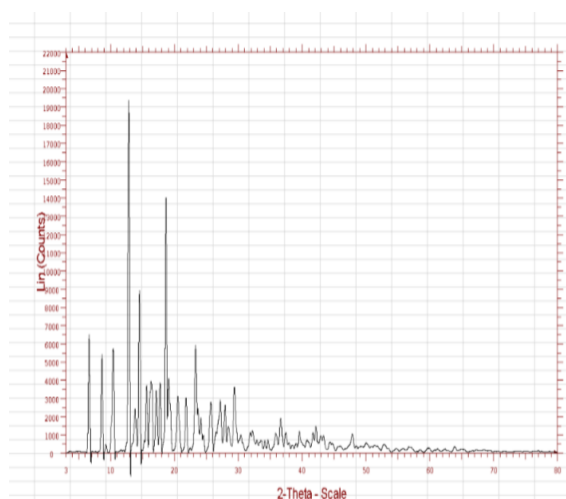
and has central importance in scientific studies. BRUKER NONIUS CAD4 single crystal X-ray diffractometer was used to find the data structure of grown crystal.

**Infrared spectroscopy:** It target to investigate vibrational group frequencies, hydrogen-bonding interactions, fundamental vibrations as well as non-fundamental vibrations and so on. FT-IR spectra was recorded in the region  $400\text{-}4000\text{ cm}^{-1}$  with the aid of MAGNA-IR 560-Spectrometer using KBr pellet technique.

**Thermogravimetric analysis:** It measures change of physical property of samples as a function of temperature. Thermal analytical study was carried out by using a SDT Q600 V20.9 Build 20 in an inert nitrogen atmosphere. For Thermo gravimetric analysis (TGA), the sample is continuously weighted [4] as it is heated to elevated temperatures and for continuous weighing, an instrument called thermo balance is used.

### 3. RESULTS AND DISCUSSION

**3.1 Powdered XRD Analysis:** Sharp crystalline peaks of the crystal show good crystalline nature are attributed to the monoclinic structure which were scanned over the range of  $2\theta$  (0 – 80) and is shown in figure 1. In PXRD diffraction pattern the perfect crystalline structure is confirmed by the presence of Bragg's peak at  $2\theta$  angle [5]. XRD peaks at  $2\theta = 16.069^\circ, 21.235^\circ, 23.531^\circ, 27.133^\circ, 29.055^\circ$  assigned for X-ray scattering from (131), (102), (060), (311) and (171) planes [6]. Obtained value tabulated in table 1 is in good agreement with the data of monoclinic phase and is confirmed by the intense peak at  $2\theta = 21.235^\circ$  corresponds to the plane (102) which is the characteristic of monoclinic phase. From the XRD diffraction data, the cell parameters a, b & c were found out by solving for three peaks of sample and cell volume is calculated using the relation,  $V = a \cdot b \cdot c \text{ \AA}^3$ . For title sample,  $a=6.2566$ ;  $b=12.5323$ ;  $c=9.2605$ , so that cell volume is  $725.16 \text{ \AA}^3$  and average value of crystal lattice parameter was about  $3.544 \text{ \AA}$ .



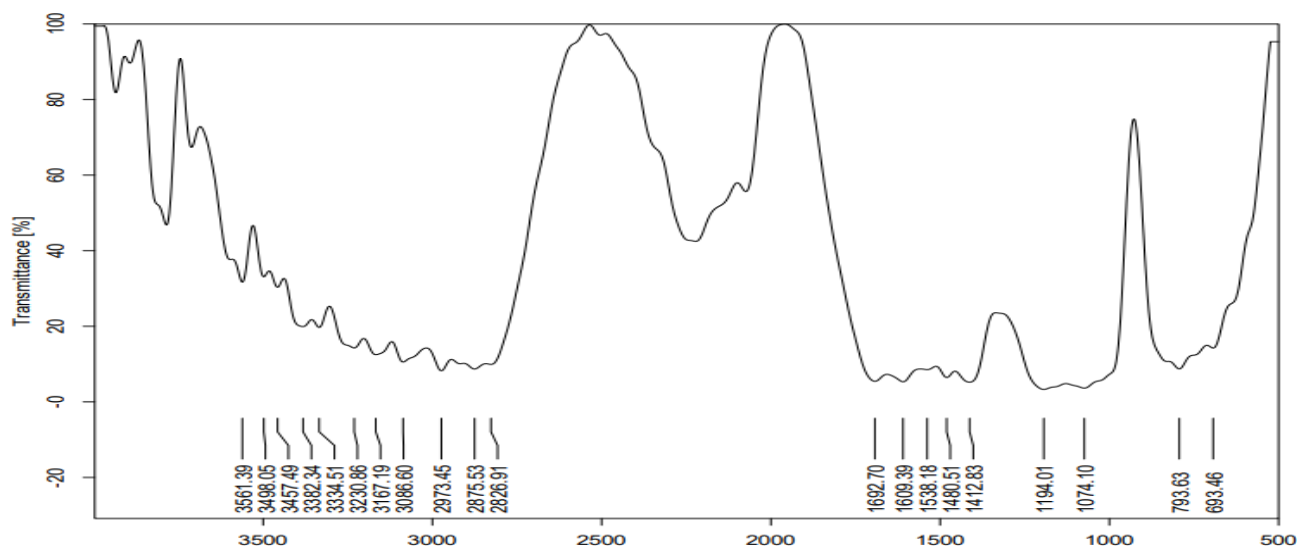
$\theta$ observed	$\theta$ calculated	dobs erved	dcalculated	Dscherrer	Plane
16.069	16.1531	5.216	5.1663	5.1232	131
21.235	21.2162	4.363	4.3885	4.57	102
23.531	23.2748	3.830	3.8172	4.04	060
27.133	27.0540	3.253	3.2900	2.29	311
29.055	29.9258	3.20	3.22	3.26	171

values

Table 1: XRD Peak

Fig 3: XRD Spectrum of  $\text{NH}_4\text{K}_2\text{Zn}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ 

**3.2 IR Interpretation of Compounds:** Vibrational assignments are tabulated in table2. IR Intensity peaks of triple salts are shown in figure2.

Fig 2: IR Spectrum of  $\text{NH}_4\text{K}_2\text{Zn}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ 

#### Spectral Assignments - OH, $\text{NH}_4^+$ , $\text{SO}_2$ , $\text{H}_2\text{O}$ Modes:

O-H stretching vibration mode noted and observed in the region of frequency  $3100\text{--}3500\text{cm}^{-1}$ . Broad intensity peak at  $3498.05\text{cm}^{-1}$  and  $3457.49\text{cm}^{-1}$  are attributed to free OH stretching. Asymmetric  $\nu_3\text{N-H}$  stretching modes usually recorded in the region  $3261\text{--}3189\text{cm}^{-1}$  and is shown as very weak intensity peak at  $3230.86$  and  $3167.19\text{cm}^{-1}$ . Strong intensity peak at  $1692.70\text{cm}^{-1}$  explains the symmetric  $\text{NH}_4^+$  bending modes generally observed between  $1653$  and  $1723\text{cm}^{-1}$ . Symmetric N-H stretching modes noted as  $\nu_1$  is expected in the region  $2864\text{--}2871\text{cm}^{-1}$  and is assigned as very weak intensity peak at  $2826.91\text{cm}^{-1}$ . Since  $\text{SO}_4^{2-}$  ion is completely free, IR inactive modes are likely to appear with weak intensity [7]. Weak intensity peak at  $1194\text{cm}^{-1}$  is attributed to the bending ( $\nu_3$ ) of  $\text{SO}_2$ . Very strong shoulder intense peak [6] at  $793.63\text{cm}^{-1}$  explains the  $\nu_4$  mode of  $\text{SO}_2$ . Since  $\text{SO}_4^{2-}$  ion is completely free, IR inactive modes are likely to appear with weak intensity [7]. Vibrations at  $693.46\text{cm}^{-1}$  assigned to the  $\nu_3$  asymmetric  $\text{SO}_4$  bending modes. For water molecules, two types of vibrational modes are observed. First one is attributed to the bending mode noted vibrations  $\delta(\text{H}_2\text{O})$  located at  $1609.39\text{cm}^{-1}$ ,  $1480.51\text{cm}^{-1}$  as medium frequency which is predictable around the region  $1400\text{--}1750\text{cm}^{-1}$ .

Table 2: IR frequency of Tutton and Triple salts

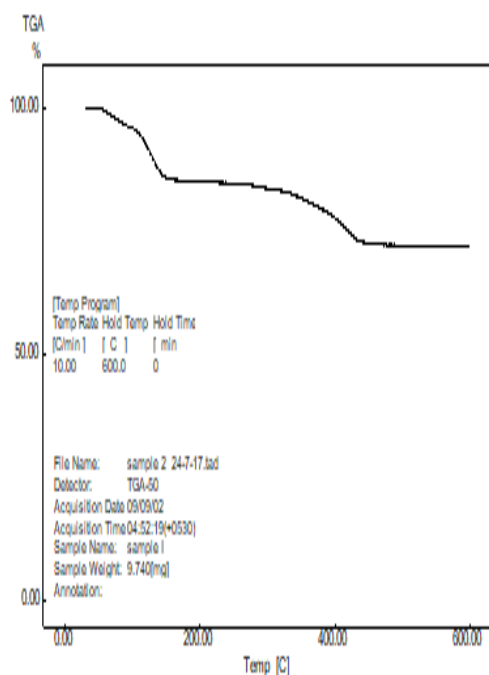
IR Frequency ( $\text{cm}^{-1}$ )	Nature of	Assignments
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$\text{NH}_4\text{K}_2\text{Zn}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$	peak	
3498.05	br	$\nu_1$ Free O-H
3457.49	br	
3230.86	w	$\nu_3$ N-H
3167.19	w	
2826.91	w	$\nu_1$ N-H
1692.70	s	$\nu_2$ $\text{NH}_4^+$
1609.39	m	$\delta(\text{H}_2\text{O})$
1480.51	m	
1194	w	$\nu_3$ $\text{SO}_4^{2-}$
793.63	sh	$\nu_4$ $\text{SO}_4^{2-}$

### 3.2 Thermogravimetric analysis

TG curve (Fig 3) obtained during the decomposition of compound in the temperature range 30° c to 600° c. First weight loss (20.71 %) observed between range 50°c to 75° c which is the representation of five lattice water molecules to give sharp curve in TG. Second weight loss (4.14 %) is the elimination of one water molecule between 100 °c to 145°c. Third weight loss (3.91 %) is the elimination of one molecule of ammonia[8] between 200°c to 260 °c. Fourth weight loss (29.45 %) is the elimination of two molecules of  $\text{SO}_2$ [9] between 300°c to 420 °c which is tabulated in table3.

Table 2: Observed thermographic data  $\text{NH}_4 \text{K}_2 \text{Zn} (\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$



Stages of decomposition	Temperature Range °C	Mass loss in %	Mass loss in weight (g)	Assignments
1	50 – 75	20.70	90	Elimination of five $\text{H}_2\text{O}$
2	100 – 145	4.14	18	Elimination of one $\text{H}_2\text{O}$
3	200 – 260	3.91	17	Elimination of amolecule of ammonia.
4	300 – 420	29.45	128	Elimination two molecules of $\text{SO}_2$

Fig 3: TG Spectrum of  $\text{NH}_4 \text{K}_2 \text{Zn} (\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$

#### 4.SUMMARY AND CONCLUSION

Ammonium and potassium ions form generally water-soluble compounds. Crystalline nature of the triple salt is studied using XRD analysis and it is confirmed that triple salt is in monoclinic phase system. Crystalline structure of triple salt is influenced by the ionic size of constituting ions. This is clear from IR spectra obtained for these two compounds under investigation. In IR spectrum, the weakest hydrogen bond is expected to give the highest stretching frequency and the strongest one to give the lowest stretching frequency. The inverse will be in the case for bending mode. H<sub>2</sub>O molecules present in sample have different composition which is confirmed by thermo gravimetric analysis. TG-DTA result concludes that sample has good thermal stability and can be utilized for opto-electronic and photonic device applications.

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**RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND  
LEADERSHIP QUALITY OF WOMEN TEACHERS**

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**ABSTRACT**

The person as a leader is open-minded, approachable, patient in listening, fair in dealings, consistent, reasonable, has respect for and understanding with his/her subordinates. A good leader should have a clear vision. Swami Vivekananda rightly pointed out that Arise, Awake and Stop not till the goal is reached. The person who succeeds in their school life that is academic level, not succeed in their personal and professional career. More than intellectual ability something stimulating a person which psychologists named as Emotional Intelligence. In the achievement of leaders EI has a powerful, crucial and major role. A person one who acquires inter and intra personal management, awareness of others and professional orientation might be won in his/her job. Emotional Intelligence is definitely influence the functions of leadership. In particular the Women's teachers of the schools are more involving in the human formation. So, their role is very meticulous and fastidious. So, a survey of the study of emotional intelligence of the leaders (Women's teachers) should be analyzed and the investigator has launched the investigation.

Key words: Leadership qualities, Emotional Intelligence.

**INTRODUCTION**

The primary significance of leadership lies in leading people to give their superb performance towards the attainment of common objectives – through zeal, enthusiasm and dedication. Leadership accentuates the process of motivation to its logical extent, by stimulating followers to give performance much above their potential capabilities; producing miracles for the attainment of the common objectives. Researchers on

human performance, point out to the fact that, on an average, people work up to 60% to 65% of their capabilities; out of organizational pressures, with a view to maintaining their jobs, for the fulfillment of their individual objectives. To make people work above these limits and induce to give to maximum contribution towards common objectives – by realizing their potentials fully or maximally; is, what is precisely the job of a leader.

### **GENERAL OBJECTIVES**

1. To find out the level of Emotional Intelligence of women's teachers with reference to the background variables.
2. To find out the level of Leadership Quality of women's teachers with reference to the background variables.
3. To find out the relationship between Emotional Intelligence and Leadership Quality of Women's teachers.

### **LIMITATIONS OF THE STUDY**

1. Sample for the study is limited to 127 women's teachers who are working in different types and stages of schools.
2. Only four dimensions of emotional intelligence and leadership quality were studied respectively in the present study.
3. The inventories were used to study the emotional intelligence and leadership quality.

### **REVIEW OF RELATED LITERATURE**

Review of research studies pertaining to the problem under investigation is of fundamental importance to provide insight into the problem, broaden the general concepts and principles and sharpen understanding. A glance at the studies shows that the criterion for leadership was majority of the investigation. In some of the studies, the sample was taken from the college students, school students and also the teachers. And emotional intelligence was studied in various aspects. Another major inference drawn from this collected literature is that the studies on emotional intelligence conducted in India as well as foreign universities have attempted to assess the study of students and other employs in general. Students or others may differ in their function on the basis of sex, age, their

occupation or studies. Leadership Quality has not been analyzed on the basis of Emotional intelligence.

### **SAMPLE**

A sample is a small proportion of a population selected for observation and analysis from a given data, the choice of sample is made by various methods. The investigator has used simple random technique to select the sample. The sample for the present study constitutes 127 women's teachers from 57 primary, 19 middle, 10 high and 41 higher secondary schools.

### **TOOLS USED IN THIS STUDY**

As the study aims to find out the relationship between emotional intelligence and leadership quality of the women's teachers, the investigator has used the following tools

- 1) Personal data form prepared by the investigator
- 2) Inventory of measuring emotional intelligence and leadership quality was developed by the investigator.

The following paragraphs explain the process of construction and validation of the above mentioned tools.

### **ADMINISTRATION OF THE TOOLS**

The investigator approached the women's teachers of each school and with the help of them administered both the tools. Thus the responses of the women's teachers were scored according to the key. The responses were got and it was scored by the scoring key. The data were fed into the computer and the statistical tools appropriate to the objectives of the study were used for the data analysis.

### **STATISTICAL TECHNIQUES USED**

Statistical techniques are necessary for understanding of the general trends and group characteristics from a variety of individual characters. The investigation has used the following statistics for analysis of data. **Arithmetic Mean, Standard Deviation , . ‘ t’- Test and ANOVA**

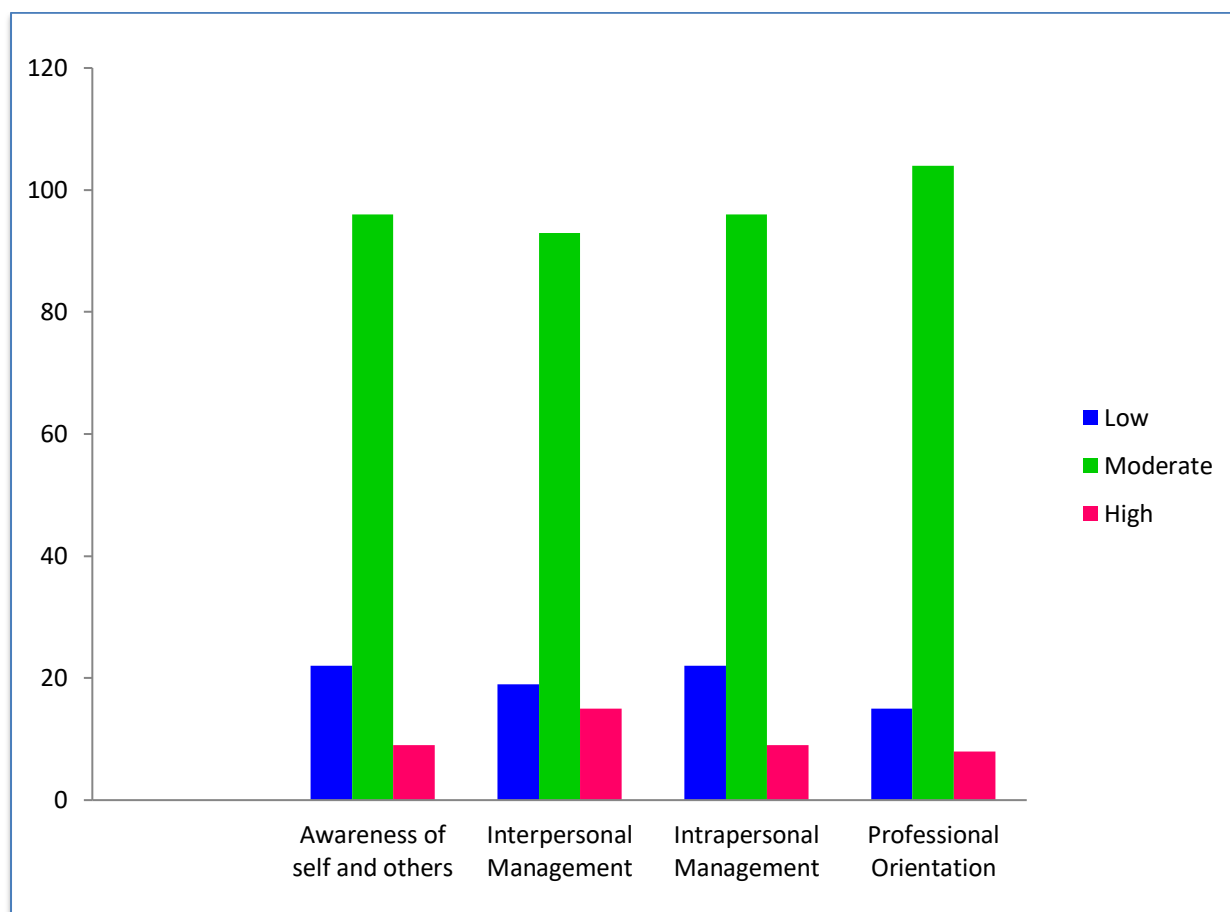
### **ANALYSIS OF DATA**

**EMOTIONAL INTELLIGENCE****TABLE - 1.1.1****LEVEL OF EMOTIONAL INTELLIGENCE OF WOMEN'S TEACHERS**

<b>Emotional Intelligence and its Dimensions</b>	<b>Low</b>		<b>Moderate</b>		<b>High</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
<b>Awareness of Self and Others</b>	22	17.3	96	75.6	9	7.1
<b>Interpersonal Management</b>	19	15.0	93	73.2	15	11.8
<b>Intrapersonal Management</b>	22	17.3	96	75.6	9	7.1
<b>Professional Orientation</b>	15	11.8	104	81.9	8	6.3
<b>Emotional Intelligence</b>	17	13.4	95	74.8	15	11.8

It is inferred from the above table that 17.3% of Women's teachers have low, 75.6% of them have moderate and 7.1% of them have high level of awareness of self and others. It is inferred from the above table that 15.0% of Women's teachers have low, 73.2% of them have moderate and 11.8% of them have high level of interpersonal management. It is inferred from the above table that 17.3% of Women's teachers have low, 75.6% of them have moderate and 7.1% of them have high level of intrapersonal management. It is inferred from the above table that 11.8% of Women's teachers have low, 81.9% of them have moderate and 6.3% of them have high level of professional orientation. It is inferred from the above table that 13.4% of Women's teachers have low, 74.8% of them have moderate and 11.8% of them have high level of emotional intelligence.

**FIG - 4.1 LEVEL OF EMOTIONAL INTELLIGENCE OF WOMEN'S TEACHERS**



**TABLE - 1.1.2 LEVEL OF EMOTIONAL INTELLIGENCE OF MALE AND FEMALE WOMEN'S TEACHERS**

Emotional Intelligence and its Dimensions	Male (N= 50)						Female (N= 77)					
	Low		Moderate		High		Low		Moderate		High	
	N	%	N	%	N	%	N	%	N	%	N	%
Awareness of Self and Others	1	24.	35	70.	3	6.0	10	13.	6	79.	6	7.8
	2	0	0	0	0	0	0	0	1	2	0	0
Interpersonal Management	8	16.	35	70.	7	14.	11	14.	5	75.	8	10.
	0	0	0	0	0	0	3	3	8	3	8	4
Intrapersonal Management	1	20.	36	72.	4	8.0	12	15.	6	77.	5	6.5
	0	0	0	0	0	0	6	6	0	9	0	0

<b>Professional Orientation</b>	6	12.0	41	82.0	3	6.0	9	11.7	63	81.8	5	5.5
<b>Emotional Intelligence</b>	7	14.0	36	72.0	7	14.0	10	13.0	59	76.6	8	10.4

It is inferred from the above table that 24.0% of male women's teachers have low, 70.0% of them have moderate and 6.0% of them have high level of awareness of self and others. Regarding headmistress, 13.0% of them low, 79.2% of them have moderate and 7.8% of them high level of awareness of self and others. It is inferred from the above table that 16.0% of male women's teachers have low, 70.0% of them have moderate and 14.0% of them have high level of interpersonal management. Regarding headmistress, 14.3% of them have low, 75.3% of them have moderate and 10.4% of them high level of interpersonal management.

**TABLE - 1.1.3 LEVEL OF EMOTIONAL INTELLIGENCE OF MARRIED, UNMARRIED AND RELIGIOUS WOMEN'S TEACHERS**

Emotional Intelligence and its Dimensions	Married (N=105)						Unmarried (N=6)						Religious (N=16)						
	Low		Moderate		High		Low		Moderate		High		Low		Moderate		High		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
<b>Awareness of Self and Others</b>	21	20.0	77	73.3	7	6.7	0	0.0	5	83.3	1	16.7	1	6.3	1	4	87.4	1	6.3
<b>Interpersonal Management</b>	21	20.0	77	73.3	7	6.7	0	0.0	5	83.3	1	16.7	1	6.3	1	4	87.4	1	6.3
<b>Intrapersonal Management</b>	22	21.0	76	72.3	7	6.7	0	0.0	4	66.7	2	33.3	0	0.0	1	6	100.0	0	0.0
<b>Professional Orientation</b>	13	12.4	86	81.9	6	5.7	0	0.0	6	100.0	0	0.0	2	12.5	1	2	75.0	2	12.5
<b>Emotional Intelligence</b>	17	16.2	76	72.4	12	11.4	0	0.0	4	66.7	2	33.3	0	0.0	1	5	93.7	1	6.3

It is inferred from the above table that 20.0%, 0.0% and 6.3% of married, unmarried and religious women's teachers have low, 73.3%, 83.3% and 87.4% of them have moderate and 6.7%, 16.7% and 6.3% of them have high level of awareness of self and others respectively. It is inferred from the above table that 20.0%, 0.0% and 6.3% of married, unmarried and religious women's teachers have low, 73.3%, 83.3% and 87.4% of them have moderate and 6.7%, 16.7% and 6.3% of them have high level of interpersonal management respectively. It is inferred from the above table that 16.2%, 0.0% and 0.0% of married, unmarried and religious women's teachers have low, 72.4%, 66.7% and 93.7% of them have moderate and 11.4%, 33.3% and 6.3% of them have high level of emotional intelligence respectively.

**TABLE - 1.1.4**

**LEVEL OF EMOTIONAL INTELLIGENCE OF WOMEN'S TEACHERS WITH RESPECT TO THEIR WORKING EXPERIENCE AS WOMEN'S TEACHERS**

Emotional Intelligence and its Dimensions	Below 10 Yrs (N= 105)						10 – 20 Yrs (N=16)						Above 20 Yrs (N=6)					
	Low		Moderate		High		Low		Moderate		High		Low		Moderate		High	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<b>Awareness of Self and Others</b>	17	16.2	82	78.1	6	5.7	2	12.5	11	68.8	3	18.7	3	50.0	3	50.0	0	0.0
<b>Interpersonal Management</b>	16	15.2	77	73.1	12	11.4	2	12.5	11	68.8	3	18.8	1	16.7	5	83.3	0	0.0

		2		3		5		5		8		7						
<b>Intrapersonal Management</b>	19	18.1	77	73.3	9	8.6	3	18.7	13	81.3	0	0.0	0	0.0	6	100.0	0	0.0
<b>Professional Orientation</b>	13	12.4	86	81.9	6	5.7	2	12.5	12	75.0	2	12.5	0	0.0	6	100.0	0	0.0
<b>Emotional Intelligence</b>	15	14.3	78	74.3	12	11.4	2	12.5	11	68.8	3	18.7	0	0.0	6	100.0	0	0.0

It is inferred from the above table that 16.2%, 12.5% and 50.0% of women's teachers who have below 10 years, 10-20 years and above 20 years working experience as women's teachers have low, 78.1%, 68.8% and 50.0% of them have moderate and 5.7%, 18.8% and 18.8% of them have high level of awareness of self and others respectively. It is inferred from the above table that 15.2%, 12.5% and 16.7% of women's teachers who have below 10 years, 10-20 years and above 20 years working experience as women's teachers have low, 73.3%, 68.8% and 83.3% of them have moderate and 11.4%, 18.8% and 18.8% of them have high level of interpersonal management respectively.

## 2.1, LEADERSHIP QUALITY

TABLE - 2.2.1

### LEVEL OF LEADERSHIP QUALITY OF WOMEN'S TEACHERS

Leadership Quality and its Dimensions	Low		Moderate		High	
	N	%	N	%	N	%
Psychological Characteristics	23	18.1	85	66.9	19	15.0
Personal Characteristics	25	19.7	82	64.6	20	15.7
Social Characteristics	27	21.3	97	76.3	3	2.4
Personality Characteristics	28	22.0	96	75.6	3	2.4
Leadership Quality	23	18.1	84	66.2	20	15.7

It is inferred from the above table that 18.1% of Women's teachers have low, 66.9% of them have moderate and 15.0% of them have high level of psychological characteristics. It is inferred from the above table that 19.8% of Women's teachers have low, 64.6% of them have moderate and 15.7% of them have high level of personal characteristics. It is inferred from the above table that 21.3.3% of Women's teachers have low, 76.3% of them have moderate and 2.4% of them have high level of social characteristics.

FIG – 2.2

LEVEL OF LEADERSHIP QUALITY OF WOMEN'S TEACHERS

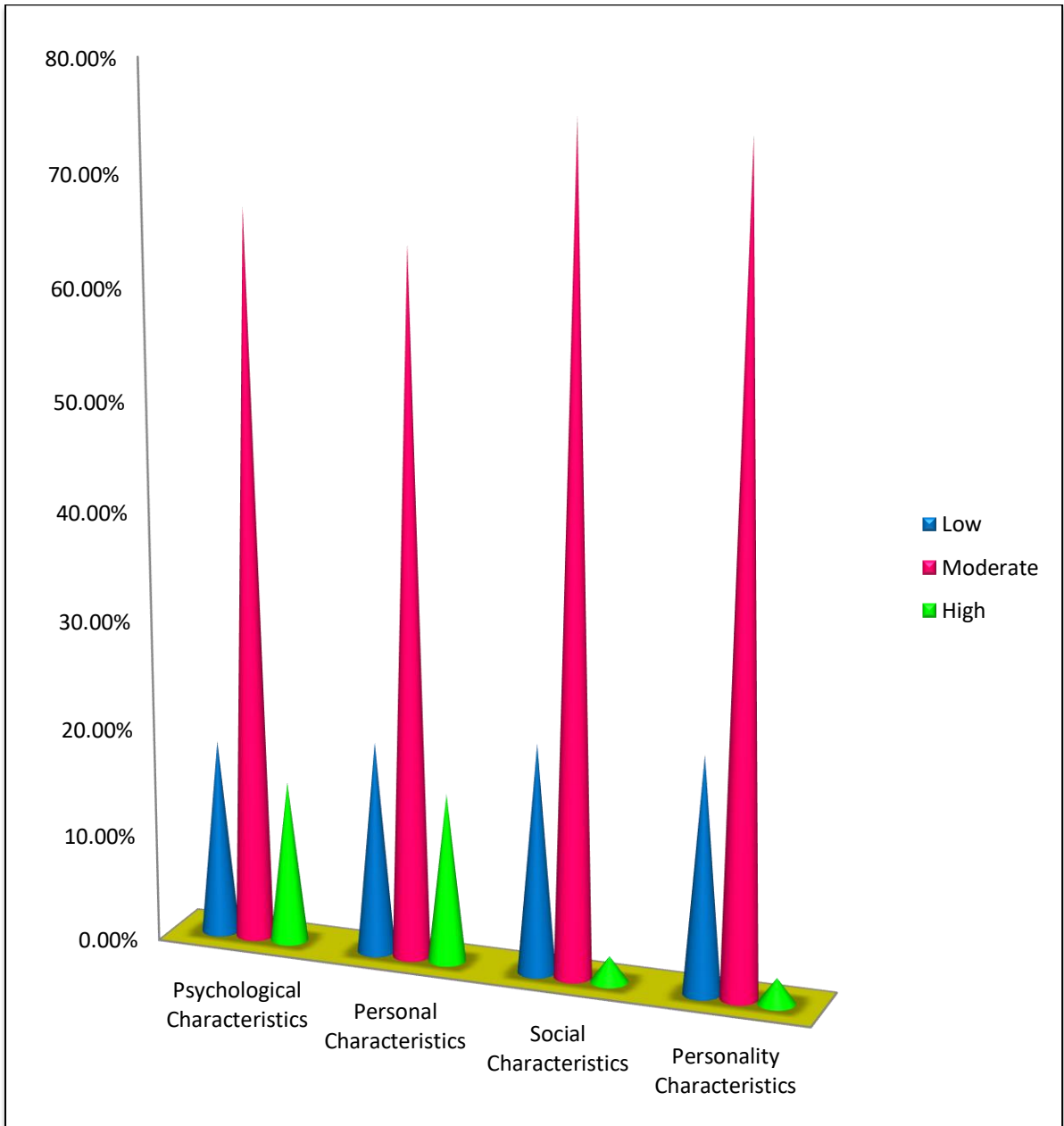


TABLE - 2.2.2

LEVEL OF LEADERSHIP QUALITY OF MALE AND FEMALE WOMEN'S  
TEACHERS

Leadership Quality and its Dimensions	Male (N= 50)						Female (N= 77)					
	Low		Moderate		High		Low		Moderate		High	
	N	%	N	%	N	%	N	%	N	%	N	%
Psychological characteristics	1	20.	3	60.	1	20.	1	16.	3	71.	9	11.7
	0	0	0	0	0	0	3	9	3	4		
Personal Characteristics	8	16.	3	66.	9	18.	1	22.	4	63.	11	14.3
		0	3	0		0	7	1	9	6		
Social Characteristics	1	22.	3	74.	2	4.0	1	20.	6	77.	2	1.9
	1	0	7	0			6	2	0	9		
Personality characteristics	1	24.	3	74.	1	2.0	1	20.	5	76.	2	2.6
	2	0	7	0			6	8	9	6		
Leadership Quality	1	24.	2	58.	9	18.	1	14.	5	71.	11	14.3
	2	0	9	0		0	1	3	5	4		

It is inferred from the above table that 20.0% of male women's teachers have low, 60.0% of them have moderate and 20.0% of them have high level of psychological characteristics. Regarding headmistress 16.9% of them have low, 71.4% of them have moderate and 11.7% of them have high level of psychological characteristics. It is inferred from the above table that 16.0% of male women's teachers have low, 66.0% of them have moderate and 18.0% of them have high level of psychological characteristics. Regarding headmistress 22.1% of them have low, 63.6% of them have moderate and 14.3% of them have high level of personal characteristics. It is inferred from the above table that 22.0% of male women's teachers have low, 74.0% of them have moderate and 4.0% of them have high level of psychological characteristics. Regarding headmistress 20.2% of them have low, 77.9% of them have moderate and 1.9% of them have high level of social characteristics.

TABLE - 2.2.3

LEVEL OF LEADERSHIP QUALITY OF MARRIED, UNMARRIED AND RELIGIOUS WOMEN'S TEACHERS

Leadership Quality and its Dimensions	Married (105)						Unmarried (6)						Religious (16)					
	Low		Moderate		High		Low		Moderate		High		Low		Moderate		High	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Psychological Characteristics	21	20.0	68	64.8	16	15.2	0	0.0	6	100.0	0	0.0	2	12.4	11	68.8	3	18.8
Personal Characteristics	20	19.0	69	65.7	16	15.2	0	0.0	6	100.0	0	0.0	5	31.3	7	43.8	4	25.0
Social Characteristics	22	21.0	81	77.1	2	1.9	1	16.7	4	66.7	1	16.6	4	25.0	12	75.0	0	0.0
Personality Characteristics	24	22.9	80	76.2	1	1.0	0	0.0	5	83.1	1	16.7	4	25.0	11	68.8	1	6.3
Leadership Quality	20	19.0	68	64.7	17	16.2	0	0.0	6	100.0	0	0.0	3	18.8	10	62.5	3	18.8

It is inferred from the above table that 20.0%, 0.0% and 12.4% of married, unmarried and religious women's teachers have low, 64.8%, 100.0% and 68.8% of them have moderate and 15.2%, 0.0% and 18.8% of them have high level of psychological characteristics. It is inferred from the above table that 19.0%, 0.0% and 31.3% of married, unmarried and religious women's teachers have low, 65.7%, 100.0% and 63.8% of them have moderate and 15.2%, 0.0% and 25.0 of them have high level of personal characteristics. It is inferred from the above table that 21.0%, 16.7% and 75.0% of married, unmarried and religious women's teachers have low, 77.1%, 66.7% and 75.0% of them have moderate and 1.0%, 16.6% and 0.0% of them have high level of social characteristics.

**TABLE - 2.2.4 LEVEL OF LEADERSHIP QUALITY OF WOMEN'S TEACHERS WITH RESPECT TO THEIR WORKING EXPERIENCE AS WOMEN'S TEACHERS**

Leadership Quality and its Dimensions	Up to 10 Years (N= 105)						10 – 20 years (N=16)						Above 20 years (N=6)					
	Low		Moderate		High		Low		Moderate		High		Low		Moderate		High	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<b>Psychological Characteristics</b>	19	18.1	69	65.6	17	16.2	3	18.8	11	68.8	2	12.5	1	16.7	5	83.3	0	0.0
<b>Personal Characteristics</b>	19	18.1	70	66.7	16	15.2	4	25.0	8	50.0	4	25.0	2	33.3	4	66.7	0	0.0
<b>Social Characteristics</b>	17	16.2	86	81.8	2	1.9	5	31.3	10	62.5	1	6.3	5	83.3	1	16.7	0	0.0
<b>Personality Characteristics</b>	21	20.2	83	79.2	0	0.0	2	12.7	13	81.4	1	6.3	5	83.3	0	0.0	1	16.7
<b>Leadership Quality</b>	17	16.2	70	66.7	18	17.1	4	25.0	10	62.5	2	12.5	2	33.3	4	66.7	0	0.0

It is inferred from the above table that 18.1%, 18.8% and 16.7% of women's teachers who have up to 10 years, 10 – 20 years and above 20 years work experience have low, 65.6%, 60.8% and 83.3% of them have moderate and 16.2%, 12.5% and 0.0% of them have high level of psychological characteristics. It is inferred from the above table that 18.1%, 25.0% and 33.3% of women's teachers who have up to 10 years, 10 – 20 years and above 20 years work experience have low, 66.7 %, 50.0% and 66.7% of them have moderate and 15.2%, 25.0% and 0.0% of them have high level of personal characteristics. It is inferred from the above table that 16.2%, 31.3% and 83.3% of women's teachers who have up to 10 years, 10 – 20 years and above 20 years work experience have low, 81.8%, 62.5% and 68.8% of them have moderate and 1.9%, 6.3% and 0.0%, of them have high level of social characteristics.

**NULL HYPOTHESIS: 3.1**

There is no significant relationship between emotional intelligence and leadership quality of the women's teachers.

**TABLE - 3.3.1**

**RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND LEADERSHIP QUALITY OF WOMEN'S TEACHERS**

Dimensions of Emotional Intelligence	N = 127	Remarks at 5% level
	Calculated ' $\gamma$ ' value	
Awareness of self and others	0.443	S
Interpersonal Management	0.34	S
Intrapersonal Management	0.37	S
Professional Orientation	0.39	S
Emotional Intelligence	0.43	S

(At 5% level of significance, for 125df, the table value of ‘ $\gamma$ ’ is 0.159)

It is inferred from the above table that there is significant relationship between leadership quality and awareness of self and others, interpersonal management, intrapersonal management, professional orientation and emotional intelligence of women's teachers.

**NULL HYPOTHESIS: 3.2**

There is no significant relationship between emotional intelligence and leadership quality of male women's teachers.

**TABLE - 3.3.2**

**RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND LEADERSHIP QUALITY OF MALE WOMEN'S TEACHERS**

Dimensions of Emotional Intelligence	Male = 50	Remarks
	Calculated ‘ $\gamma$ ’ value	
Awareness of self and others	0.63	S
Interpersonal Management	0.54	S
Intrapersonal Management	0.58	S
Professional Orientation	0.53	S
Emotional Intelligence	0.63	S

(At 5% level of significance, for 48 df, the table value of ‘ $\gamma$ ’ is 0.273)

It is inferred from the above table that there is significant relationship between leadership quality and awareness of self and others, interpersonal management, intrapersonal management, professional orientation and emotional intelligence of male women's teachers.

**NULL HYPOTHESIS: 3.3**

There is no significant relationship between emotional intelligence and leadership quality of female women's teachers.

**TABLE - 3.3.3**

**RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND LEADERSHIP  
QUALITY OF FEMALE WOMEN'S TEACHERS**

Dimensions of Emotional Intelligence	Female = 77	Remarks
	Calculated ' $\gamma$ ' value	
Awareness of self and others	0.44	S
Interpersonal Management	0.35	S
Intrapersonal Management	0.39	S
Professional Orientation	0.36	S
Emotional Intelligence	0.43	S

(At 5% level of significance, for 75 df, the table value of ' $\gamma$ ' is 0.217)

It is inferred from the above table that there is significant relationship between leadership quality and awareness of self and others, interpersonal management, intrapersonal management, professional orientation and emotional intelligence of female women's teachers.

### **FINDINGS OF THE STUDY**

The 't' test reveals that the women's teachers who attended the seminars are better in their intrapersonal management, professional orientation and emotional intelligence. This may be due to the fact that the women's teachers who attended the seminars get more chance to interact with many new persons and also they may get more opportunity to mingle with others. They may get more chances to express their opinions and also interact with others. This skills and practices may be followed by them in the schools especially in their administration.

'F' test result reveals that, the Christian women's teachers (81.58) are better in intrapersonal management. This may due to the fact that the Christian women's teachers may get the chance to participate in holistic approach training programmes such as retreats, spiritual directions and refreshment courses. That kind of programmes may enlighten them to understand themselves and others clearly.

'F' test result reveals that, the unmarried women's teachers are better in intrapersonal management. This may due to the fact that the unmarried women's teachers may get the opportunity to relate with many persons. The less responsibilities and burdens of the family may provide them more time and availability to the service of others. This atmosphere may make them to relate and mingle with others.

'F' test result reveals that, the women's teachers those who have no partner are better in awareness of self and others. This may due to the fact that the women's teachers those who have no partner may be more sensitive about themselves and others. They may get more chances to participate many self awareness and personality development programmes. And they are motivated to read awareness of self, communication and personality development books. These factors may create in them an awareness of self and others.

**Leadership Quality**

The 't' test result reveals that the women's teachers who attend seminar are better in their personality characteristics. This may be due to the fact that they might have been got many exercises to develop their personality. They may get the chance to observe many popular personalities. This may create in them the personality characters. So they are rich in personality characteristics.

'F' test result reveals that the women's teachers who have joint family are better in awareness of self and others. This may be due to the fact the members of the joint family may get more chances to interact with all the other members of the family. And they may get the chance to listen others. Hence they develop the sense of awareness of self and others.

'F' test result reveals that the women's teachers who have joint family are better in leadership quality. This may be due to the fact that the members of the joint family to get the chance to observe the elders in the family. They may be trained by the senior members in the family to lead others.

'F' test result reveals that the women's teachers those who are working in aided schools are better in personal characteristics. This may be due to the fact that they may be trained in self discipline and expected to execute the fine characters. This may lead them to show better in personal characteristics.

The  $\chi^2$  value shows that there is no significant association between age and psychological, personal, social, personality characteristics and leadership quality of women's teachers. But there is significant association among first, second, third, fourth and above born and personal characteristics of them.

**Relationship between Emotional Intelligence and Leadership Quality**

The correlation coefficient result reveals that there is a positive and significant relationship between emotional intelligence and leadership quality. This may be due to the fact

those who have balanced emotions will be the good leaders. If we train the students from the early stage itself in the emotional expressions they will be surely good leaders in the future.

### RECOMMENDATIONS

1. Proper training and refreshment can be arranged for the women's teachers.
2. School auditing can be arranged periodically and it shall give more influence to develop the leadership quality.
3. Organizing many programmes for teachers and students can give the pave to develop the leadership skills.
4. Arranging the school assembly and deliver messages in assembly develop the skills.

### Conclusion

Bocoum and Amadou DM (2011) observed that the leadership styles of nonprofit organizations influence the emotional intelligence. Furthermore, Anisha Devi M and Joyce Rani A (2011) found that the superior emotional competence had a greater degree of self-awareness, self-esteem and were able to express themselves freely. These are the basic qualities of the leaders which strengthens the findings of this study. Hence, we can conclude that, there is a high positive relationship was established between emotional intelligence and leadership quality, which shows one variable enriches the other in all the ways possible. Hence, one who possesses better emotional intelligence will have better leadership quality. Each one depend another in their function or execution. In other words, we can say these are the two sides of a same coin for a women's teachers.

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**Thermal Analysis on Solar Heater for Supplementary Heating of Fluid****P.S Aanie<sup>1</sup>, P.H. Sudharlin Paul<sup>2</sup>, Dr.S Jeslin Sunitha Bai<sup>3</sup>***P.G & Research, Department of Physics, Nesamony Memorial Christian college  
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Marthandam, Tamilnadu, India<sup>3</sup>**Email: psaanie@gmail.com<sup>1</sup>, sudharlinnpaulph@gmail.com<sup>2</sup>, jeslinsunitha@gmail.com<sup>3</sup>***Abstract**

Temperature enhancement of fluid, thermal performance and Stagnation temperature are the key parameters and so these parameters are to be absorbed in solar collector applications in connection with supplementary heating of air as hot fluid. In this connection, the present research was devoted to have studies on solar absorber, solar collector in stagnant conditions and solar collector in operative conditions. The research results showed that the crystallite size in absorptive coating effected on solar absorber was 37 nm. The research results also showed that the stagnation temperature of solar collector with nano structured absorber was 89.0 °C. The observation on research results revealed not only the temperature enhancement of fluid that varied from 5.4 to 5.8°C but also the instantaneous performance of collector that ranged between 55.0 to 56.0%. It could be concluded that the solar collector with nano-structured absorber would be used for supplementary heating of hot fluid with improved thermal performances.

**Index Terms-** Solar collector with absorber, Stagnation temperature, Temperature of air fluid, Thermal performance.

**1. INTRODUCTION**

Solar absorbers physical properties determine the instantaneous thermal performances of solar collector [1]. It has been reported that the physical properties can be improved by using suitable chemical constituents in the absorptive coatings effected on solar absorbers [2]. It has also been reported that the physical properties can also be improved by using suitable sizes of chemical constituents in absorptive coatings effected on absorbers [3]. In these perspectives, the present research work was devoted (i) to estimate the crystallite sizes in the absorptive coating effected on solar absorber, (ii) to evaluate the thermal enhancements in solar collector at stagnant conditions and (iii) to assess the instantaneous thermal performances of solar collector for supplementary heating of hot fluid. The standard materials, standardized methodology and calibrated instruments were used for materializing all these objectives of the present research [4]. The research

outcomes have been documented in this research paper for the benefits of researchers, manufacturers and end users of solar thermal gadgets worldwide.

## 2. MATERIALS AND METHODS

In this research work, the nano structured absorber and solar collector were tested. The structural and thermal properties of nano structured absorber were studied through characterization and outdoor testing techniques respectively. The instantaneous thermal performances of the solar collector were calculated by using the formula  $\eta = m_f C_p (T_o - T_i) / A_g G$  where  $\eta$  = efficiency (%),  $m_f$  = mass flow rate of working fluid (Kg/s),  $C_p$  = specific heat capacity (J/kg°C),  $T_o$  = outlet temperature of the working fluid (°C),  $T_i$  = inlet temperature of the working fluid (°C),  $A_g$  = gross area of collector (m<sup>2</sup>) and  $G$  = incident solar radiation (W/m<sup>2</sup>) [5].

## 3. RESULT AND DISCUSSION

The present research was conducted to study the physical properties with special reference to structural and thermal properties of solar absorber and collector. While the stagnation temperature has been presented in Table 1, the temperature enhancement of hot fluid and thermal performances of solar collector for supplementary heating of hot fluid have been presented in Table 2 and Table 3 respectively.

**Table 1. Stagnation temperature in solar collector.**

Time	Solar radiation (W/m <sup>2</sup> )	Stagnation temperature (°C)	Time	Solar radiation (W/m <sup>2</sup> )	Stagnation temperature (°C)
08:30	221.6	36.2	12:30	795.6	82.0
09:00	246.7	40.5	13:00	798.3	89.0
09:30	380.5	46.8	13:30	720.4	89.0
10:00	466.8	53.1	14:00	682.2	89.0
10:30	518.5	66.9	14:30	534.6	84.4
11:00	629.3	72.8	15:00	428.7	83.0
11:30	676.9	78.7	15:30	361.9	81.6
12:00	731.2	81.2	16:00	310.1	80.9

**Table 2. Increase in temperature of hot fluid in solar collector**

Time	Solar radiation (W/m <sup>2</sup> )	Ambient temperature (°C)	Windspeed (m/s)	Temperature of fluid (°C)	
				Inlet	outlet
11:00	790.8	30.0	1.6	61.0	66.2
11:30	798.6	30.2	1.3	61.0	66.2
12:30	809.7	30.5	0.8	61.0	66.4
13:00	821.8	30.6	0.6	61.0	66.9

**Table 3. Instantaneous thermal performances of solar collector for supplementary heating of hot fluid**

Inlet temperature of working fluid (°C)	Instantaneous thermal performance of solar collector (%)
61.0	56.0
61.0	55.4
61.0	55.2
61.0	55.0

The solar absorber was characterized through X-ray diffractometer and the crystallite size was estimated to be 37 nm. As the crystallite size was in nano range, the enhanced absorption of solar radiation and hence increased stagnation temperature of solar collector and improved instantaneous thermal performances of solar collector for supplementary heating of hot fluid would be harvested.

The developed solar collector was tested in stagnant conditions. It was tested at equal intervals of time during sunshine hours. The stagnation temperature of the solar collector was found to be 89.0 °C. The developed solar collector was also tested with high temperature fluid of 61.0 °C. It was tested at equal intervals of time before and after solar noon. The increase in temperature of fluid varied from 5.4 to 5.8 °C. Subsequently the thermal efficiency was calculated by using the measured parameters such as increase in temperature of fluid, mass flow rate of fluid and incident solar radiation. The average instantaneous thermal efficiency for supplementary heating of hot fluid was calculated to be 55.0%. The acquired stagnation temperature, attained thermal enhancement of fluid and apprehended instantaneous thermal performances of solar collector could be attributed with absorptive properties of components, heat transfer characteristics of components and physical efficacy of components [6]. They could also be attributed with chemical constituents of the absorptive coating, sizes of constituents of absorptive coating and

structural characteristics of the absorptive coating affected on solar absorbers used in solar collector [7].

#### 4. CONCLUSION

It could be concluded that the solar collector with nano-structured absorber would be used for supplementary heating of hot fluid with improved thermal performances.

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