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CRITERION 3

***ACADEMIC YEAR***

***2020 - 2021***

## Gender Stereotyping in Advertisements

G. Hemalatha\*

*Gender stereotyping, the origin of which is very ancient, is still prevalent in some way or the other even in present times. The unequal power structure which is existent at the household level flows into the media and especially in advertisements. This results in their negative representation where they can be seen in traditional stereotypical roles. Wrongful gender stereotyping is a frequent cause of discrimination against women and contributes in violations of rights mostly related to gender. Policy instruments prohibiting gender stereotyping in advertisements are available, both at national and international levels but a lot more needs to be done to witness real change. Hence, this study tries to examine the roles played by male and female characters in advertisements related to washing/cleaning/ laundry products, food products and baby care products. The rationale of being very selective with regard to the advertisements is to ascertain whether any gender role variations could be seen in the recent times and to provide valuable suggestions for improving the quality of such advertisements.*

**Keywords:** Women, Advertisements, Gender stereotyping, Media, Women's portrayal

### I. INTRODUCTION: ORIGIN OF GENDER STEREOTYPING

A woman is the most beautiful creation of God. She is the creator of humankind. She is an embodiment of admirable traits. Patience, tolerance and irresistible power are some of the powerful traits that women naturally possess. It is also worthy to note that this innate capacity of a woman brings her closest to nature. It is for this reason that she is often termed as 'Shakti'. There is also another conceptualisation of 'woman' called as 'Prakriti Shakti', which denigrates her status. On one hand, the woman is praised for her natural shakti which is looked upon as the energy of the universe. But on the other hand, she is also seen as Prakriti (nature) which is the undifferentiated matter of the universe.

When Indian history is re-visited, certain facts related to women and their stereotypical roles are distinctly described. For instance, the Vedic texts have described women's power as 'uncultured' and 'dangerous' and hence, a male should be there to control the uncultured power possessed by a woman. This, in fact, is the starting point of a woman's freedom being curtailed. Surprisingly, both men and women strove hard for their livelihoods in the early stages of civilisation. But as civilisation

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evolved, the control exercised by man over woman developed. The act of childbirth was initially seen as a magical event and it was believed that it happened because of inscrutable powers of women. As time passed by, men's role in procreation was understood and gradually the awe of women vanished. This marked the emergence of patriarchy which then became a norm of the society. Hence, men began to wield power in different forms thus controlling the activities of women. Though, a woman seemed to possess 'Shakti' or power as the universe has naturally endowed her with, it was not manifested, as the power in her was seen as highly dangerous and destructive. Hence, men 'acquired' power in everything.

It is further disheartening to note that women are only seen in extremities. Ever since ancient scriptures were written, women's traits were either lauded or suppressed. They were never seen as equals with men. They are either 'honoured' or 'controlled'. They are seen as the ones possessing natural power of procreation and so they were honoured. At the other end the possession of this natural power is found to be destructive and is to be controlled by men. The contradictions can very well be seen in the Vedas and in Manu Smriti. "Vedas described 'where there is respect for woman; there will be the presence of divine' whereas Manu believed 'it is the duty of husbands to exert total control over their wives; even physically weak husband must strive to control over their wives' " (Yadav, 2018: 46-47).

"The 'pativrata' woman as described in ancient scriptures has become a dominant role-model for an Indian female. The Indian woman is an archetype of feminine perfection and is popularly held up as a model to be emulated" (Thilakavathy, 2015: 124). Indian womanhood typically denotes a subservient figure who completely sacrifices for the sake of the family. The attitude of service is seen as reflecting the perfect trait to be possessed by every woman. "Woman is an ideological and institutional construct and the woman in India is a gendered phenomenon, which ascribes to itself a number of gender specific roles and functions that are discriminatory and derogative of her equal status in the society" (Kumar and Varghese 2005: 23). For ages, this model of woman came has been recognized as ideal and is still in practice. The gender roles attached to Indian women are a result of how the ancient scriptures have portrayed women. Most of the roles performed by women have discriminated them on account of sex. This is the reason behind why still women are not seen as equals in society. Hence, it can be very well understood that gender stereotyping had its evolution since time immemorial and is still prevalent in some way or the other, even in the present times.

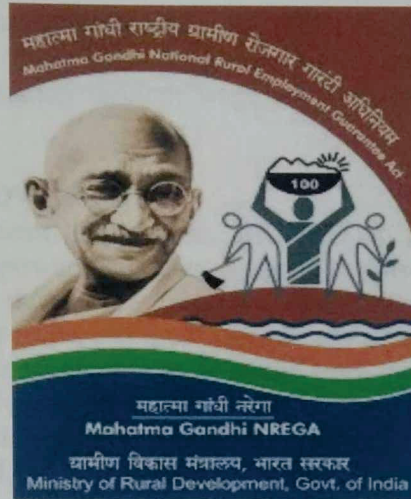
## **II. GENDER STEREOTYPING AND ITS FORMS**

Gender Stereotyping is a very common phenomenon which is prevalent in all societies. The roots of it could be seen in the emergence of sexual division of labour. The United Nations' Office of the High Commissioner for Human Rights defines

**STUDY ON THE IMPACT OF MAGHATMA GANDHI NATIONAL RURAL  
EMPLOYMENT GUARANTEE SCHEME (MGNREGS) WITH SPECIAL REFERENCE TO  
VELLANCODE PANCHAYAT IN KANYAKUMARI DISTRICT, TAMIL NADU**

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### ABSTRACT

Employment is an important part which supports a country with economic, social and environmental developments. Employment makes a individual confidence about their life, provide financial stability, freedom from poverty. In India making Employment opportunities for citizens can help to reduce corruption, remove terrorism and poverty. MGNREGS is a employment based scheme which implemented to reduce unemployment and poverty by central government of India. MGNREGS is a land mark legislation in the Indian history of social security legislation after independence. This scheme has been bringing about a silent revolution in rural areas and livelihood. **KEYWORD:** Employment, Poverty, Economy, Women Empowerment, Salary, Social Status.

### INTRODUCTION

The MGNREGA is India's first constitution to codify development rights in a legal framework. NREGA was passed by parliament & enacted on 5th December 2005. The NREGA scheme was initially came in to force in 200 districts of 27 states in phase I. It is firstly launched in Anantpur district of Andhra Pradesh on 2nd February 2006 by our Prime Minister Dr. Manmohan Singh. It was implemented in three phases & covered the whole country within 5 years. This act provides Employment to the rural people of India based on their rights. On 31st December 2009 the act was renamed by an amendment as Mahatma Gandhi National Rural Employment Guarantee Act 2005. The implementation of NREGA largely depends on the active participation of 3 tier decentralized self governance and Panchayat institutions. The basic objectives of the act is to enhance livelihood security & standard of living in rural areas by providing at least 100 days of guaranteed wage employment to every household whose adult member volunteer to do unskilled manual work as this not require any kind of educational and skill. Any rural household seeking manual work could register their name in the gram panchayat & their job card. Job card holders he/she can apply for work for at least 100 days in the gram panchayat. Under the scheme job is to be provided within 15 days of receipt of an application or from the date he seeks work & if they failed to do so, the unemployment allowance would become payable to local household. The act permits certain categories of work to be taken up for providing employment such as water conservation,



drought, plantation, irrigation, canals, horticulture , fisheries, land development, rural connectivity & renovation of water bodies.

The Mahatma Gandhi National Rural Employment Guarantee Act is an act to universalize employment guarantee in rural area by initiating the community participation in creation of national asset by accessed participatory approach of panchayat raj system. NREGA opens up the opportunity to improve agricultural productivity in dry land areas. Improvement of small farms through construction of wells, land leveling etc., these can increase productivity of dry land. NREGA is a program made for the transformation of society. It needs a strong supervision from society & government as well. Strong information like Right to Information act should be used by society or citizens increase accountability & transparency under the NREGA. The real goal is to improve the conditions of agricultural sector along with that the improvements in rural infrastructure, employment generation & asset creation through wage employment programme & investing in irrigation.

### **MGNREGA AND SOCIAL EMPOWERMENT**

As a rural wage employment programme, MGNREGA recognized the relevance of incorporating gender equality & empowerment in its design. The importance of social protection is in many countries, particularly in developing countries. Social protection consists of policy & programmes to develop the capacity to protect them against loss of income. Many countries of the world has been implementing various schemes relating public work programme to boost employment opportunities & ultimately to remove poverty. This scheme is a good indication how the economic benefits of MGNREGS trickling down to the marginalized sections of the society. As far as participation of women is concerned, the MGNREGS outshines earlier programmes by significantly higher margins. MGNREGS is among the largest social welfare schemes implemented anywhere in the world. .

The Mahatma Gandhi National Rural Employment Guarantee scheme becomes an interesting subject to study because it is not only giving employment to the rural poor but also creating sustainable & rural assets in the rural region. The act gives power to the daily wage laborers to fight for their right to receive the wages that they must receive & just means of providing social security to its people but also an opportunity to promote overall development & alter the balance of power in rural people. The success of NREGA need not be measured on a single parameter of employment generation even though it is recorded for better than of predecessor policies for employment opportunities. This act becomes a role model for innovation in many areas.

### **MGNREGS AND WOMEN EMPOWERMENT**

Women are the important asset for the world and she is the main aspect to build a good family. She is the reason for the physically and mentally healthy family. In urban areas women get a chance to work according to their education and skills but what about the uneducated and not so skilled rural women? That's when MGNREGS gave a chance to the rural women to work and support their family economically too. MGNREGS not require any educational qualification or technical skills its mostly for uneducated and unskilled Indian citizens. Most of the women who are working under MGNREGS are also the member of Self Help Groups and here they will save their wages and start their business and become entrepreneurs on their own. Its not only helped women to empower but also men.

#### **Objective of the Study**

- To know the impact of MGNREGS, Vellancode Panchayat , Kanyakumari District.
- To give suggestions for further improvement in the quality and quantity of MGNREGS based on the feedback from the workers working under MGNREGS by circulating questionnaire and personal interview.

**WOMEN AND ENTREPRENEURSHIP: A TOOL FOR WOMEN EMPOWERMENT AND NATIONAL DEVELOPMENT**

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Women Entrepreneurial culture implies a set of values, norms and traits that are conducive to the growth of entrepreneurship. It is the means of capitalizing on focuses on the emergence of new opportunities, the men of capitalizing on them, and the creation of the structure appropriate for pursuing them. It is an elusive concept that cannot be defined precisely. The word 'entrepreneurship' has been derived from a French root which suggests 'to undertake'.

**According to Higgins,**

"Entrepreneurship is supposed the function of seeking investment and production opportunity, organizing an enterprise to undertake a replacement production process, raising capital, hiring labour, arranging the availability of raw materials, finding site, introducing a replacement technique and commodities, discovering new sources of raw materials and selecting top managers of day-to-day operations of the enterprise".

The meaning of entrepreneurs may also depend upon the level of development of a country. For instance, in a developed country only people carrying out innovations are termed entrepreneurs. But in under developed countries, imitators are also considered entrepreneurs. The Indian sociological found out has been traditionally a male. Women are considered as weaker sex and always to depend upon men folk in their family and out of doors, throughout their life. Developing entrepreneurship among women is equally important for the all-round development of the country. In most of the cases it has been found the women have to depend on the male members of their family for their existence. This is equally applicable even in the scale of educated and affluent women. In such a situation if efforts are made to develop entrepreneurship among the women, it will not only solve the problem of women in making them economically independent but it will also help in adding to the National income. This paper analyses the significance of entrepreneur, the various start up jobs which can be taken up by women in building the economy as well as being self-reliant.

**Women and Entrepreneurship: A Tool for Women Empowerment and National Development**

**Introduction:**

Entrepreneurs are individuals who initiate, organize, control and manage the affairs of a commercial enterprise unit that mixes the elements of manufacturing to deliver items and offerings, whether or not the commercial enterprise relates to agriculture, industry, change or profession". Besides she is a financial chief who possesses the cap potential to realize possibilities for a hit creation of a brand- new product, new supply of deliver, new strategies of manufacturing etc. and who assembles the important sources and organizes them right into a going concern. Anyone who undertakes this assignment is an entrepreneur. The entrepreneurial elegance is an 'using elegance' because it creates jobs.

The that means of marketers may additionally rely upon the extent of improvement of a united

state. For instance, in an advanced united states most effective humans wearing out improvements are termed marketers. But in below advanced countries, imitators also are taken into consideration marketers.

An entrepreneur perceives a possibility in a brand-new area or in a current one. Therefore, an entrepreneur perceives a want after which brings collectively the manpower, substances and capital required to meet that want.

Whereas Entrepreneurship, like many different financial concepts, has lengthy been debated. It has been utilized in numerous approaches and in numerous senses. It is an elusive idea that can't be described precisely. The word 'entrepreneurship' has been derived from a French root which way 'to adopt'. Today, humans name it with the aid of using numerous ways, e.g., 'adventurism', 'danger taking', 'thrill looking for', innovating', etc.

The idea and its idea have developed over greater than centuries. In classical financial idea, it turned into a shady idea. In the long term and below ideal opposition the entrepreneur both disappeared or as a minimum modified over right into a kind of standard manager. It is most effective in latest years that entrepreneurship and the function of marketers withinside the procedure of industrialization and financial improvement has been known in each advanced and growing countries.

According to Higgins, "Entrepreneurship is supposed the feature of looking for funding and manufacturing possibility, establishing an employer to adopt a brand- new manufacturing procedure, elevating capital, hiring labour, arranging the delivery of uncooked substances, locating site, introducing a brand- new method and commodities, coming across new re-assets of uncooked substances and choosing pinnacle managers of everyday operations of the employer".

In this definition entrepreneurship is defined because the feature of dealing with financial interest, project danger, developing something new and establishing and coordinating sources.

According to A.H.Cole "entrepreneurship is the practical interest of an man or woman or a set of related individuals, below-taken to initiate, keep aggrandize income with the aid of using manufacturing or distribution of financial items and offerings".

The primary traits function of financial increasement is the development toward a more and more difficult sample of labour specialization. In the primitive agricultural machine in growing groups the labour turned into divided on the premise of age and intercourse and better obligations had been entrusted to girls.

Within addition financial improvement and development in shipping machine, there has been a better participation of women's who have become employees in addition to employers. In fact, statistical evaluation indicates in India, that 68% of the girls are engaged in domestic industries. After India's Independence Indian women were given identical possibility in all spheres of sports. The charter of India in its article 39 reads as follows:

"The kingdom shall direct its coverage toward securing the citizens, women and men similarly have the proper to good enough way of lively-hood and proper to paintings, training and public help in positive instances".

Many legal guidelines had been handed with the item of widening women's participation in all regions of sports uneconomic, social and political existence in India. Though women are aware of the lifestyles in their rights and paintings scenario, the center elegance girls are but to just accept their function and are equipped to regulate their function withinside the society for worry of social backlash.

## WOMEN EMPOWERMENT PROGRAMMES IN TAMIL NADU-A STUDY

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### ABSTRACT

The Women Empowerment is one of the important issues in the progress of the development of countries all over the world. Women Empowerment is a process which has many dimensions, where the women will gain the major share of control over material resources, human resources, intellectual resources like knowledge, information and ideas and financial resources like money and control over decision making at all the levels including their home, society, community and Nation to gain power. Female population in Tamil Nadu is nearly half of the total population in the State. The main obstacle to the Women Empowerment has been the poverty and low level of educational attainments among Women. Hence the Government of India and the Government of Tamil Nadu have framed various policies, schemes and implemented various programmes and many ratified various Social Legislations to eradicate the poverty and to provide education to the vulnerable sections of the society especially the girl child and women. The National concern for Women Welfare is reflected in our Constitution and Legislative provisions which govern the Rights of Women and obligations of the Government, society and family towards women. Our nation has always been advocating and striving to provide for the basic rights of the women. Through the constitutional provisions and various special legislations brought by our Indian Government, women are given equal opportunities and facilities to develop in a healthy manner and in conditions of their freedom and dignity. Within the democratic framework of our country, our legislations, development schemes and policies, plans and programmes are aimed at women's advancement in different spheres. The implementation of the Schemes for the Empowerment of women is done by The Social Welfare and Nutritious Meal Programme Department through various Institutions. Thus, through all these enhancing instruments The Government of Tamil Nadu has also made significant progress in achieving Empowerment of women and providing equal opportunities for them in all spheres of life. This study illustrates various schemes and programmes implemented by the Government of Tamil Nadu and suggestions to enhance its significance and effectiveness in-order to reach a large volume of targeted people and thereby achieving the efficiency of the efforts of Government.

**Keywords:** Empowerment, Poverty, Education, Government schemes.

### INTRODUCTION

The past trend and direction of civilization have witnessed the dominance and authority of human males throughout the course of history of the world. In India also, women have been governed by the men for a longer period. A woman is under the subjugation of her father when she was a child, when married, under that of her husband, later under her sons and if has no sons then to the agnatic relation, because there is no woman whatsoever who is fit to be independent. This clearly shows that woman was considered as a weakling, hence they are always to be protected and controlled. As a result of this, womanhood which constitutes one half of humanity, continued to remain dependent and overburdened and a women's status became analogous to that of a cattle and a slave, not at par with her counterpart in socio-economic, political and cultural life. The status of women is one of the important measurements for the nation's development. Ideologically women was considered a completely inferior species to the male, having no significance, no personality; socially she was kept in a state of utter subjugation to demand any right, suppressed and oppressed. Owing to restrictive traditions and customs and social prejudice, the majority of our women are incapable of availing themselves of the rights and opportunities bestowed upon them. Lack of education, economic dependence also act as drags on their development as self-reliant independent citizens. As women is the pivot of the family, the programmes for various Women's Empowerment assume

primary importance. The well-being of women and health of children are the index of the progress of a society and the Nation. The women and children together constitute 75% of the population of the Nation. The progress of the nation largely depends upon the progress of women and well-being of the children. A Welfare State like India has the responsibility to render special services to the weaker section like women and children, who remain handicapped to improve their economic and social condition. After independence all round efforts have been made to promote welfare of women. Promotion of Women Welfare is one of the most important Social Welfare Programme under implementation. Under the different Five-Year Plans, general as well as special programmes were taken up by the Government for the welfare of and also to cater to their special requirements.

The State Government has also implemented schemes for strengthening and fulfilling the social, economic and safety needs of the women. Many of the outcomes targeted by the Sustainable Development Goals of the United Nation focuses on the Gender Equity, eradication of hunger and poverty. The Government has had the foresight in seeing this need and has made valuable progress in achieving empowerment of women.

### CONCEPT OF WOMEN EMPOWERMENT

The Women Empowerment seeks to promote the welfare of women by giving special attention to the prevention, eradication of discrimination in any form, as well as the promotion of skills of employment and self-actualization. The Women Empowerment includes the total well-being of the women, and it includes the totality of measure i.e economic, administrative, technical, education and socially intended to give to each individual an equality of opportunity for growth and development and it is an integral part of the economic plan. Women Empowerment and Development, a comparatively new field, is a scientific study of women and it is drawn from various fields such as the Medicine, Psychology, Education, Social work, Home Science and Anthropology. It is not merely about launching programmes framed to provide isolated services for the women such as early education, health or nutrition. It requires a holistic view and inter sectoral linkages so as to provide all round development and welfare of the women, only then would such intervention be of any use in the women development.

### DIMENSIONS OF WOMEN EMPOWERMENT

**Economic participation** : It is important for lowering the disproportionate levels of poverty among women , raises household income and encourages economic development in countries as a whole. It concerns women particularly in the labour force and remuneration on an equal basis. The economic opportunity concerns the quality of women's economic involvement , beyond their mere presence as workers. Women in managerial positions need to be encouraged.

**Political empowerment**: It refers to the equitable representation of women in decision-making structures, and their voice in the formulation of policies affecting their societies. The women must be present in all the levels and structures of governance and have an impact on its decisions that are taken.

**Educational attainment** : It is the most basic requirement for empowering women in all spheres of the society, updating relevant to existing knowledge and the real needs of the society. Access to Information and Communication Technology has to be provided and should be used for social and economic gain.

**Health and well-being** : It relates the substantial differences existing between women and men in their access to nutrition level, healthcare access, reproductive facilities and to the issues of fundamental safety and integrity of person.

**Protection from abuses and exploitation** : Women's particular vulnerability to violence is perhaps the most obvious aspect of reduced physical security and integrity of person. Gender-based violence shatters many women's dignity. The social and cultural issues, crimes of sexual assault, child abuse, wife battering ,domestic violence, etc., victimises the women and children and makes them more vulnerable.

**A STUDY ON MID-DAY MEAL SCHEME AND ITS IMPLEMENTATION IN CHENNAI,  
TAMIL NADU.**

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**ABSTRACT**

Poverty and starvation are the most prevalent issue in India. The underprivileged sections of the society spend their whole life earning to meet the ends. They are not able to send their children to school and mostly children belong to these sections of the society are involved in working. Education lays the foundation for the growth of a society. Access to education is considered as an important right of any children. Various programmes were implemented in the primary education sector by the Government of India especially for the economically deprived population. Mid-Day Meal Scheme is one of the most important programme introduced by the Government of India and it is one of the largest school meals providing programmes in the world. At present, nearly half of the Indian children are malnourished. The main reason for the introduction of this scheme was the undernourishment faced by the school going children. Through this scheme the government targets to provide nutritious food to millions of Indian children. Mid-Day Meal Scheme is playing an important role in the increase of school enrolment and eradicating classroom hunger. This scheme helped in reducing school dropouts in all government schools India especially in rural areas. Mid-Day Meal Scheme plays an important role in encouraging school attendance especially among girls. Recent studies show that after the enactment of this scheme there is an increase in girl's enrolment in schools. Mid-Day Meal Scheme encourages and boosts socialization by contributing to eradicate caste preconceptions and fostering a culture of social equality, as the children from diverse caste backgrounds share a meal together.

This study emphasis on the implementation of Mid-Day Meal Scheme provided in the schools in Chennai, Tamil Nadu. The survey method has been adopted in the planned research in selected government schools in Chennai. The objective of the study was to understand not only the implementation but also to understand the institutional arrangements and to assess performance of Mid-Day Meal Scheme.

**Keywords:** Education, Malnutrition, Mid-day meals, Nutrition.

**INTRODUCTION**

Food and nutrition are considered to be extremely significant and comprehensive areas of one's life. The physical growth of an individual, the development of mind-set, capacity building, skill information, understanding of educational concepts, capabilities, cognitive development, development of fine, gross and motor skills and so forth within an individual effectively takes place due to consumption of a healthy and nutritious diet. Regarding food and nutrition, it is important for the individuals to categorize the differences between healthy and unhealthy food items, one should consume healthy food items and unhealthy food items should be completely avoided. The importance of nutrition education, the need for nutrition education, development of nutrition education and nutrition awareness programmes should be conducted in educational institutions especially in the young minds. It has been observed that among other educational concepts and topics, nutrition education and concepts relating to diet, food and healthy lifestyle should be taken into consideration.

Numerous schemes have been launched and implemented for the basic education division by the Government to reach the economically disadvantaged sections of the society. Though, notwithstanding this, crores of children are still deprived of basic education due to incapability of their parents to send them to schools because of their deprived economic position. For, these parents, sending their children to school means not only earning extra financial liability but also depriving them of some money which their children would have gotten then by doing labour.

Education prepares the child to turn out to be a valuable member of the society and to play a productive part in the socioeconomic expansion of the nation. It is education which plays a vigorous and significant role in satisfying the basic requirements of a common man viz. food, shelter and clothing. The foremost purpose of education is to prepare and develop the child physically, mentally and spiritually to lead a quality lifetime. Education is a practice through which a child is made skilled to reach the essential capabilities and expertise to face the challenges in life to endure, and to make fight for survival.

Adolescence is a vigorous phase of growth and progress as children go through physical, mental, emotional and social changes throughout this phase. It is one of the vital phase of life, as about 40% of the physical development and 80% of the mental development take place in the course of this phase. The purpose of education is to recognize the inner potential of the children and provide all types of nourishment to enrich healthy growth and development of the children to provide to the welfare of the society. A starving child is less possible to go to school on a regular basis. Hunger draw off of their motivation and capability to study. Inability to get healthy food can lead to malnutrition and it can also slow down or even stops the physical and mental development of children. Poor or inadequate nutrition over time means that children are vulnerable to ailments like measles or dysentery, which can kill undernourished children. Undernourishment unfavourably affects Universalization of basic Education. Even if famished children does attend school, they may find it challenging to focus on and partake in learning and other activities in school. He or She consequently likely to drop-out, because of the incapability to manage with studies. If the child does not really drop out his or her achievement level likely to be low.

In India school meal programmes have been operating in many states of the country for over years, supported by many institutions from time to time. But in an effort to state the glitches of health and education countrywide, the government made a solution in the form of National Programme of Nutritional Support to Primary Education, universally known as the Mid-Day Meal Scheme (MDMS) in 1995. Mid-Day Meal Scheme is basically a child wellbeing initiative. The idea backing this scheme was to develop physical health of children by delivering nutritional food in schools. This scheme is contemplated to be the possible motivation for children belonging to disadvantaged sections of society to attend school regularly and ameliorate their health and academic level at the same time.

### **MID DAY MEAL SCHEME IN INDIA; AN OVERVIEW**

On August, 1995, Mid-Day Meal Scheme was introduced as a centrally backed scheme by the Ministry of Human Resource Development (Department of Education) with the goal of "Universalization of primary education by increasing enrolment, retention and attendance and concomitantly impacting on nourishment of students in primary classes". Under this scheme, cooked Mid-Day Meals were to be initiated within two years. Till 2001, though the Mid-Day Meal Scheme was not implemented and almost all of the states were providing "dry rations" (food grains) at the rate of 3 kilograms for students on monthly basis, having minimum attendance of 80%.

Very few states, nevertheless introduced cooked meal in primary schools beforehand the Supreme Court's preliminary deadline of February, 28, 2002. The deadline was later stretched to January, 2005 by Supreme Court. Till October 2004, allocation of cooked meal could not be universalized in eight states which comprised major states. In many of the remaining states, quality of meal served to children was not pleasing. In 2004, the Mid-Day Meal Scheme was completely implemented in 20 states and all seven union territories, and comparatively in the remaining eight states, where scheme was not wholly implemented. Innovative guiding principles were also provided for meals to be served all through the summer breaks in drought affected regions. Some states including Andhra Pradesh, Karnataka and Tamil Nadu have been following this order. The centre after viewing the effective implementation of the scheme reviewed the strategies in 2006 and increased the calorific standards of cooked meal from 300 to over 450, 12 grams of proteins and sufficient amounts of micro nutrients like folic acid, iron and vitamin A. The scheme was all over again reviewed in April 2008 to cover the scheme to known as well as unrecognized Madrasas/Maqtabs maintained under Sarva Shiksha Abhiyan (SSA) as Government Assisted centres. The programme was later extended to all states of India in between 2008-2009.

## CYBER CRIME AND CYBER LAW

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### ABSTRACT

#### **CYBER CRIME IS THE WAY TO JAIL, CYBER SECURITY IS THE WAY TO AVAIL -ANUSH SINGHAL**

Cybercrime is also called as computer crime. cybercrime is the most troublesome threat for financial markets, on the same time, it is the most underrated by both the regulators and financial institutions. The work is made easier and simpler in all field including entertaining, sports, business, this is a advantage but along with-it the disadvantage of illegal activities takes place in the name of cybercrime. It has made considerable damage to the detail retail banking, mainly through payment scams and credit cards. there are lot of crime taking place in the society, the crimes are limitless. as many of the cybercrimes have taking place for the financial purpose, online users must be aware of these kind crime attacks and need to be caution with online transactions.

**KEYWORDS:** CYBER CRIME, CYBER LAW, MALWARE, SECURITY, HACKING, DIGITAL.

### INTRODUCTION:

At present we are in the age of digital transformation and automation, where most of the work of man is been shifted on machines for getting his work done. The computer technology helps the human society to such a great extent that the life without the computer seems to be impossible. the film tickets, examination results, paying bills, banking transactions all are carried out with the computers and all the data and information has acquired electronic shape and capable to move through the optic fibers. Today photographs, currencies, bio-data's, letters, clips, videos, songs, etc. are been transferred, distributed, circulated and stored in electronic form. so, crime has been experienced by people in context of their everyday lives in matter of growing concern.

### CYBER CRIME

Cybercrime is the criminal activity that either targets on a computer, a network device or a computer network. cybercrime is not only carried out by cybercriminals or hackers, in order to make money. crime sometimes, are carried out by individuals or organizations. some of the cybercriminals are organized, they use advanced techniques and are highly technically skilled. others are just learners of cybercrime. in rare cases, it aims to damage computers for reasons other than profit. this kind can be political or personal.

### THE MAIN CATEGORIES OF CYBERCRIME

- criminal activity that targets: this kind of target on computers often involves viruses and other types of malwares. the cybercriminals infect the commuturs through viruses and malware to damage the device or to stop them working. cybercriminals also use the malware to delete or steal data.
- criminal activity that uses computers to commit other crimes: this kind of crime involve using computers or networks to spread malware, illegal information, or illegal images



**TABLE: 1.1**  
**Cyber Crimes in Metropolitan Cities - 2014-2016**

Sl. No.	Cities	Cases Reported			Percentage Share of City (2016)	Rank Based on Incidence/ % share (2016)	Actual Population (In Lakhs)+	Crime Rate ++ (Col.14/ Population +) (2016)	Rank Based on Crime Rate (2016)
		2014	2015	2016					
1	2	3	4	5	6	7	8	9	10
1	Agra (Uttar Pradesh)	41	47	112	8.2	4	17.5	6.4	6
2	Allahabad (Uttar Pradesh)	155	152	142	10.4	3	12.2	11.6	3
3	Amritsar (Punjab)	24	20	18	1.3	17	11.8	1.5	18
4	Asansol (Assam)	10	35	31	2.3	13	12.4	2.5	13
5	Aurangabad (Maharashtra)	66	148	152	11.1	2	11.9	12.8	2
6	Bhopal (Madhya Pradesh)	43	17	5	0.4	27	18.8	0.3	30
7	Chandigarh City	54	77	26	1.9	15	10.3	2.5	12
8	Dhanbad (Jharkhand)	2	10	2	0.1	32	11.9	0.2	32
9	Durg-Bhilainagar(Chhattisgarh)	10	12	13	0.9	20	10.6	1.2	19
10	Faridabad (Haryana)	13	32	33	2.4	12	14.1	2.3	14
11	Gwalior (Madhya Pradesh)	5	5	9	0.7	22	11.0	0.8	22
12	Jabalpur (Madhya Pradesh)	11	27	1	0.1	33	12.7	0.1	33
13	Jamshedpur (Jharkhand)	23	45	38	2.8	10	13.4	2.8	11
14	Jodhpur (Rajasthan)	88	118	63	4.6	7	11.4	5.5	7
15	Kannur (Kerala)	10	4	7	0.5	23	16.4	0.4	26
16	Kollam (Kerala)	12	16	10	0.7	21	11.1	0.9	21
17	Kota (Rajasthan)	23	40	16	1.2	18	10.0	1.6	16
18	Ludhiana (Punjab)	31	20	16	1.2	19	16.1	1.0	20
19	Madurai (Tamil Nadu)	20	6	5	0.4	28	14.6	0.3	27
20	Malappuram (Kerala)	6	4	3	0.2	30	17.0	0.2	31
21	Meerut (Uttar Pradesh)	66	65	43	3.1	9	14.3	3.0	10
22	Nasik (Maharashtra)	39	32	27	2.0	14	15.6	1.7	15
23	Raipur (Chhattisgarh)	41	22	6	0.4	25	11.2	0.5	24
24	Rajkot (Gujarat)	4	0	6	0.4	26	13.9	0.4	25
25	Ranchi (Jharkhand)	12	0	0	0.0	34	11.3	0.0	34
26	Srinagar (Jammu & Kashmir)	15	10	7	0.5	24	12.7	0.6	23
27	Thiruvananthapuram (Kerala)	37	29	26	1.9	16	16.9	1.5	17
28	Thrissur (Kerala)	19	12	5	0.4	29	18.5	0.3	29
29	Tiruchirapalli (Tamil Nadu)	7	9	3	0.2	31	10.2	0.3	28
30	Vadodara (Gujarat)	23	16	55	4.0	8	18.2	3.0	9
31	Varanasi (Uttar Pradesh)	61	85	97	7.1	6	14.4	6.7	5
32	Vasai Virar (Maharashtra)	5	21	38	2.8	11	12.2	3.1	8
33	Vijayawada (Andhra Pradesh)	51	73	109	8.0	5	14.9	7.3	4
34	Vishakhapatnam(Andhra Pradesh)	96	240	246	18.0	1	17.3	14.2	1
<b>TOTAL CITIES</b>		<b>1123</b>	<b>1449</b>	<b>1370</b>	<b>100.0</b>		<b>466.8</b>		

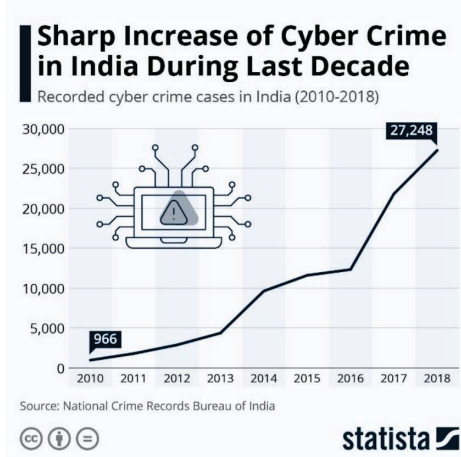
**TYPES OF CYBER CRIME**

There are three-fold of cybercrime by crime security

1. Cyber-attack often involves politically motivated information gathering.
2. Cybercrime includes single actors or groups targeting systems for financial gain or to cause disruption.
3. Cyberterrorism is deliberated to undermine electronic systems to cause panic or fear.

There are some techniques by which cybercrime takes place, they are:

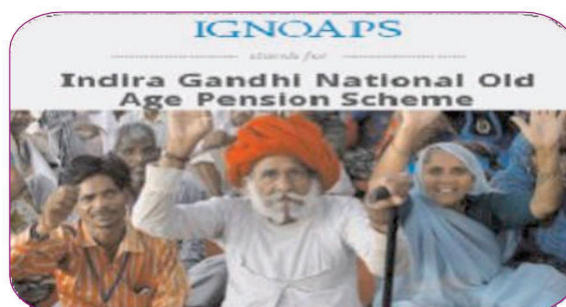
**IMAGE: 1.1 INCREASE OF CYBER CRIME IN INDIA FROM 2010-2018**



**IMPLEMENTATION OF INDIRA GANDHI NATIONAL OLD AGE PENSION SCHEME  
WITH REFERENCE TO TIRUNELVELI DISRICT OF TAMIL NADU**

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**Abstract:**

Indira Gandhi National Old Age Pension Scheme was introduction by the government to improve the quality of life of the Senior Citizens by providing them with basic facilities. The main objective of this study is to examine the socio economic background and problems of the old age people and whether these Pension Scheme really satisfy the needs of the beneficiaries. This study is based on both the Descriptive and Analytical methods. The Data is collected through questionnaire and the sample size is 100. The Old Age Pension Scheme is helpful to the beneficiaries and the Old Age Pension Scheme provides Social protection to the Senior Citizen. The researcher used Tabular columns to analyze the data collected.

**Keywords:** Old Age Pension, Pension, Social Welfare, Status of women, economic.

**Introduction:**

The ongoing Indira Gandhi National Old Age Pension Scheme (NOAPS), which was earlier known as National Old Age Pension Scheme which was launched on 15<sup>th</sup> August 1995 as a part of National Social Assistance Programme (NSAP) has renamed as India Gandhi National Old Age Pension Scheme (IGNOAPS) was renamed and launched on November 19, 2007 by Prime Minister Man Mohan Singh to mark the birth Anniversary of Late Former Prime Minister of India Mrs. Indira Gandhi.

Originally, this scheme provided to the entire person above the age of 65 but later on the Government decided to cover the people “Below the Poverty line” above the age of 65. Later, the ministry of rural development decided to cover with wider range now, this scheme is provided to the beneficiaries of above the age of 60 and cover young widows.

The Government of India also provides various benefit schemes to the senior citizen, Indira Gandhi National Old Age Pension Scheme, Pradhan Mantri Vaya Vandhana Yojana, Varshita Pension Bima Yojana, Rashtriya Vayoshri Yojana. The main aim of this scheme is to raise the quality of life of the elder person by providing them with basic needs like shelter, food, medical care etc...

**Objectives of the study:**

- ❖ To Analyse the status of IGNOAPS
- ❖ To study the implementation pattern of IGNOAPS

- ❖ To suggest suitable suggestion for the improvement of Indira Gandhi National Old Age Pension Scheme (IGNOAPS) in Tirunelveli District (Tamil Nadu)

### Methodology of the study

The researcher circulated 50 questioners among the old age pensioners at Tirunelveli District to know about the benefits of old age pension scheme. Simple random Sampling method is adopted for this study. This study is based on both the Descriptive and Analytical methods.

### Implementation of Indira Gandhi National Old Age Pension Scheme:

Indira Gandhi National Old Age Pension Scheme is implemented as a part of National Social Assistance Program (NSAP) of the **Ministry of Rural Development**, Government of India. The Government of Tamil Nadu is operating Old Age Pension Scheme (OAP) through the Revenue Department under Social Security Scheme. The Objective of IGNOAPS is to disburse pension to old age persons of 60 years and above belonging to households below the poverty line. IGNOAPS is a non-contributory scheme and provides a monthly income for citizens above 60 years, who have no other source of income.

Name of the Scheme	Indira Gandhi National Old Age Pension Scheme(IGNOAP)
Implementation	Introduced on 15th August 1995 the scheme was launched in the name of National Old Age Pension Scheme (NOAPS) and on 19th November 2007, NOAPS was renamed as Indira Gandhi National Old Age Pension Scheme (IGNOAPS).
Objective of the Scheme	To disburse pension to old age persons of 60 years and above belonging to households below the poverty line.
Assistance Provided	Rs.1000/- per month.
Eligibility Criteria	Old age persons of 60 years and above belonging to households below the poverty line (BPL family) according to the criteria prescribed by the Government of India.
Other Benefits Given	a) One free dhoti for male pensioner and one free saree for female pensioner are supplied twice a year during (Pongal and Deepavali) festivals. b) All the pensioners are provided daily with free nutritious meal at Anganwadi Centres. Free supply of 2 kilogram of rice per month to those who are taking nutritious meal, and 4 kilograms of rice per month to those who are not taking nutritious meal.
Procedure to Apply	Applications in white paper or in the prescribed format with the required details are to be submitted to the Special Tahasildar (Social Security Scheme). Applications may also be submitted to Village Administrative Officer (VAO) in the village itself.
Time Limit for processing Application	Within a month from the date of receipt of application.
Officers to be	<ul style="list-style-type: none"> <li>✓ District Collector</li> <li>✓ Special Deputy Collector(Social Security Scheme)</li> </ul>

## **DIGITAL EXPERIENCE AND BEHAVIOUR OF PEOPLE DUE TO THE IMPACT OF COVID-19**

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**ABSTRACT** -Technology has been part of our life and has also changed the way people are interacting. The current situation has made the technology an immensely influential part of our life and has also contributed to the methods of interaction amongst the people. This radical change due to the impact of COVID-19 has made us to think of technology as means to our day to day life of how we can gather information, work with only options of technology, communicate with the use of technology, socialize with technology, carry out purchases, pursue education and much more. Biological disaster management has made to think of this technology as a boon, which was earlier considered at times as a bane. This has also brought about changes in the behaviour of people like their quick adaptability and increase in awareness about tools of communication. This study thus aims to: a) Study the level of awareness amongst the people about digital experience after COVID 19. To study the level of satisfaction of the people with the various tools of technology. b) To identify the various uses of technology during COVID19 and the changes in the behaviour of people with the use of technology. c) To understand the problems faced by them due to the option of using only technology during the pandemic situation. Use of technology is not just an initiative of any industry, sector, it is the need to be leveraged well with needs, comfort and utilities of the people who are going to use it to have better experience with exposure to technology and also to nail itself as an emerging technology which would support human behaviour to achieve greater heights in their life.

**Keywords:** COVID19, Behaviour, Technology, Digital experience, Awareness

### **I INTRODUCTION**

In the past decade and a half, the number of people having smart phones has increased and the time spent by them in front of screens such as laptops, mobile phones and tablets have also considerably manifolded. The proliferation of technology in day to day activities has changed the way the world experiences life. Now, we are so reliant on technology in every possible way that people have not just adopted technology into their lives but have shaped themselves into the current culture of technology from their daily routine of buying clothes or groceries. People find satisfaction and relief in just clicking a button from the comfort of their home in the middle of the night or during their busy work schedule in the office at noon. The times have evolved so much around technology that currently we are unable to visualise a life without a phone or laptop in our hand as we are indecisive on what to do without them. Ironically, people fear to think of life without a smartphone to pass time. The situation has also made us to think on changes in the behaviour of people due to the digital experience like increased exposure causing erratic health problems, emotional and physical problems due to their elongated screen time such as irritability, back & neck problems and also lack of physical bonding. This has seen a substantial increase especially during the lockdown in various countries due to the Worldwide Pandemic of COVID-19. This Pandemic has led many individuals across the globe to stay at home with hardly any direct contact to the outside world other than through virtual methods. The people living alone had the most impact as they have no other option but to entertain themselves with the digital devices as physical meetings and gatherings was not possible due to social distancing protocols. Though, this has improved the methods of communication, we cannot imagine a life in the absence of this incredible piece of technology.

### **II. REVIEW OF LITERATURE**

Technology has the power to change the behaviour of human beings, as they tend to be inseparable from us at every walk of life. But the question always comes is whether digitalisation is always an advantage or does it also have its own limitations. There have been various studies on the technology, its effect on the behaviour of individuals. Ananya, Goswami, Sraboni Dutta. (2016) noted that gender had a significant role in respondents level of acceptance and also the extent of use. The study discussed about UTAUT (Unified theory of adoption and use of Technology). Increased

usage also emphasised on health behaviour required to make the technology a positive approach. Measures to explore the trends and patterns could provide a platform with healthy technological experience as noted by FawadTaj, Michel C A Klein, and Aart van Halteren, The Behavioural change Technology is being encouraged in various health care industries for enabling the users to have a healthy usage and experience of technology. Technology advancements should now focus on human side of technology, IT and business leaders should stop trying to keep up with high paced technology growth but should now concentrate on user centric innovation which positioned for success, Jeff Wordham, The information systems Research centre at the Cranfield School of Management conducted a survey to find the state of knowledge management in European Business. (Murray 1998). The study indicated that information technology is a facilitator and a tool for knowledge management. The study also showed that many companies and sectors are spending huge amounts to develop their Information Technology. Preece(1995) in his study commented on the required criterion for design to make the computers user friendly. He discussed about the new patterns and software development required to make the user at ease at home and also at work environments. Technological facilities will help people to receive more information but the need for appropriate skills is also an added advantage to apply this specific information in a useful manner. There are many more studies on behaviour and use of digital technology, but the current COVID 19 situation has given no choice to the people, but to use technology. So it is now a new arena of what people do when it is a compulsion.

Though these studies have highlighted the various behaviour, advantages and other issues relating to use of technology, the current situation wherein we are forced to use technology has brought even those who were totally averse to technology to the forefront in order to carry out their work schedule. They are in the threshold and don't have a choice to avoid the technology. This has made some of them to have behavioural changes and their contentment towards this is influencing various other activities and at times is taking a toll on their health.

### **III RESEARCH METHODOLOGY**

This empirical study completely encounters with primary data derived from respondents who are using the digital technology gadgets in the day to day life, especially in the COVID19 period.in Chennai. Questionnaire was used to obtain responses, which consisted of three parts, namely

1. Demographic variables like age, gender, income, marital status, type of occupation.
2. Statements regarding usage of various types of digital gadgets, their awareness, satisfaction towards the utilization.
3. Variables relating to their change in behavior and problems encountered while using the tools of technology.

The question is composed of optional type questions as well as statements as Likert's 5 points scale, which ranges from strongly agree to strongly disagree. A total of 300 questionnaires were distributed to the users of technological gadgets. Out of this, 50 questionnaires were rejected for incomplete responses, and the study was restricted to 250 respondents.

#### **A.Objectives**

Study the level of awareness amongst the people about digital experience after COVID 19.

- To study the level of satisfaction of the people with the various tools of technology.
- To identify the various uses of technology during COVID19 and the changes in the behaviour of people with the use of technology.
- To understand the problems faced by them due to the option of using only technology during the pandemic situation.

#### **B. Reliability Analysis and Pilot Study**

After constructing the research instrument, the researcher intended to check its reliability through the statistical tool. In order to conduct this pilot study, the researcher obtained 100 responses from the people who are using technology during this lock down period for various purposes like payments for shopping, rent, medical coverage, educational purposes, bank transaction etc. The sample was collected through convenience sampling method. The researcher meticulously selected Cronbach alpha method, actually this method verifies how far the statements are well understood by the respondents. The required benchmark Cronbach alpha value is 0.75 which actually indicates the percentage of variance. More the variance is, it is an indicator for better knowledge about the employees in expressing their responses. The direct application of Cronbach alpha method derived 0.860 for use of digital technology, whereas the 18 statements of satisfaction and

# OVERVIEW ON THE INFLUENCE OF INTERNET ON THE CONSUMPTION BEHAVIOUR OF TEENS

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## Abstract

Internet is a necessary evil', all though the statement is a cliched statement it is a fact that the most powerful invention of all times is the internet but it has a lot of negative effects to it. The internet can be used in the positive direction which can prove very productive, can gain access to information and get a lot of learning Teens opportunities. They can connect to people with similar interests and explore their creativity. Along with the positive effect comes the negative aspects also as tween may lack self-regulation in the usage of internet appropriately.

## INTRODUCTION:

The increasing accessibility to internet or the Information Technology has caused a significant impact on the consumption behavior of Tweens and Teenagers. This set of consumers who are raised in the digital era seem to be influenced by the internet leading to a behavioral change in their consumption.

## OBJECTIVE FOR THE STUDY

- The primary purpose of the paper is to understand the Impact of Internet on the Consumption Behavior of Teens.
- To Analyze the impact of internet on several purchase decisions related to High Technological products, Vacation planning, household items, Food etc.
- To study the impact on family purchase decisions.
- To understand if tween play a significant role in taking purchase decision due to the information they are exposed to.

The use of Internet among young people is very high. Internet is a medium that has accompanied Teens from their existence and has strongly rooted in their everyday lives. They use the internet for many activities and one major activity among them is the purchase process. Internet has altered the way consumers buy more so when it comes to Teens because of the way they research, discover and ultimately purchase the products.

## REVIEW OF CONCEPTS IN THE STUDY

### TEENAGERS:

The group of Kids who belong to the age group of 13 to 19 years of age are called the teenagers or Teens. This age group of kids are often associated with adolescence. Teens belong to the age groups which reflects a lot of emotions and do a lot of learning. Teens often begin to reconnoiter new interests and passions and hence, are easily influenced by their peers and friends. They also have the ability to influence their own families in consumption process. This age group is a vulnerable age group giving the marketers a chance to target them through the internet.

## CONSUMER BEHAVIOUR:

The term Consumer Behaviour is 'The behavior consumers display in searching for, purchasing, using, evaluating and disposing of products, services and ideas which they expect will satisfy their needs'. Consumer Behaviour is the study of the behaviour of the consumers how they spend the available resources on consumptions related items.

The term 'consumer' is often used to describe two different kinds of consumer viz. the individual consumers and the organizational consumers. The individual consumers who buy goods and services for his or her own use is focused in this paper. Consumer can again be grouped into various categories according to their age. Adults, Teens, tweens and infants. This paper aims at understanding the influence of internet on the teen's consumption behaviour.

## REVIEW OF PREVIOUS STUDIES:

Magdalena Kowalska "The internet impact on market behavior of young consumers", Journal of International Studies, Vol. 5, No 1, 2012, pp. 101-106. The majority of respondents in the survey conducted by this author, uses the internet on a high percentage. Around 94% of surveyed respondents said that they use the internet for interpersonal relations, and to make purchases. Although there are a lot of risks involved in Purchasing through the internet, it provides some form convenience.

Brian McRoberts, vice president, Fleishman-Hillard Digital Research in his study designed to track and measure the influence and impact of the internet on consumer behavior and decisions says "The Internet has roughly doubled the influence of the second strongest medium -- television -- and roughly eight times the influence of traditional printed media".

The internet is used differently by the consumers to take a decision. Especially teens and young adults use the internet to seek opinion from other through social media platforms or in product related sites. When the choice is for personal use or impacts their dear and near ones a lot more care. While the internet gives a lot of benefits, consumers also continue to have a concern on the trustworthiness of the Online information which acts a wowser.

Moschis & Mitchell (1986): Children differ in magnitude and the type of influence they exercise within the families during the buying decision making process. Teens who belong to the High Social Orientation families are less likely to make consumer decisions for themselves as well as involve in family decision making process. Teens with high concept orientation is likely to have more product knowledge and be better off in managing family budget (Moschis & Moore, 1979)

John Hall, Mike Shaw, Melissa Johnson, and Peter Oppenheim (1995): 'Children were found to have an extensive involvement in consumer decision making overall in particular with the purchase of daily goods, their own goods, holiday destination, brand of jeans, take-away food, breakfast cereal, brand of bicycle, video games and runners'.

Amanda Lenhart, Oliver Lewis and Lee Rainie (2001): They say about 17 million teenagers use the internet use and the Internet plays a major role in their relationships with their friends, their families, and their schools.

Pew internet and life projects teens and parents survey: About 66% of the teens research on products and services before they buy, they go for purchase decision. 31% buy online, 31% visit sites to trade or sell things.

## HOW INTERNET HAS TRANSFORMED CONSUM BEHAVIOUR OF TEENS

Over the years the usage of internet as a medium has definitely changed. The technology and internet had fashioned the behaviour of consumers and how they take the decision to purchase the products. The increase in the use social media platforms like Twitter, Facebook etc had increased the opportunity to share and access wide range of information. Teens who are a part of the consumption group are empowered due to the fact that they look up to the world wide web to research and look up for specific product and service-related information. This has led to the adaptation of improvised marketing methods which has evolved for all business.

The Internet has transformed the consumers purchasing behaviour in 4 major ways:

## A STUDY ON THE IMPACT OF ADVERTISING ON THE CONSUMPTION BEHAVIOUR OF TWEENS

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### INTRODUCTION:

*'Targeting the Tweens- a new Strategy for Advertising and Business'*

'Tween tween little star, how I wonder what you are'...? Wondering what? Well, that's the revised version of the nursery rhyme which the Indian markets are chanting. The Indian market is becoming more complex day by day. But a new phenomenon, which is gaining prominence, is that of marketing to children. Nowadays children are becoming very important consumers because of their increasing purchasing power and increasing influence on the purchasing decision of their parents.

It would be impossible to quantify the kids' market size today. Not only are advertisers talking to kids but more than before thru kids. Every day more marketers are launching, re-launching or changing existing brand USPs to talk to kids or through kids to their parents. Rohinton Maloo, MD, Media Scope Associates says "I could comfortably state that there could be as high as a 200% growth year on year in the kids targeted market". It is now a proven fact that Indian kids will drive sales more than ever before. Companies like HLL and others have started targeting their traditional brands through kids. Categories like detergents, salt, aatta, small vehicles, washing machines, have all discovered the 'Pester Power' that kids can create.

The important change that is taking place in the Indian kids market is the emergence of kids as an independent buyer group. Influenced by mass media and peer pressure, today's kids are more informed and self-conscious. One of most important segment in the kids market is the tween market. The tweens are children between middle childhood and adolescence in human development, generally in the age range of 8 to 12 years old. Marketers describe the driving psychographic searching for, purchasing, using, evaluating and disposing of products, services and ideas which they expect will satisfy their needs". Consumer behavior is the study of the behavior of the consumers how they spend the available resources on consumptions related items. Motivation of this group as desperately wanting to be a teen, but not about to stop being a kid.

### What is Consumer Behavior?

The term consumer behavior can be defined as the 'Behavior that consumers display in selecting, using and disposing the products and services.

The term 'consumer' is often used to describe two different kinds of consumer viz the individual consumers and the organizational consumers. This study refers to the individual consumers who buy goods and services for his or her own use. Consumer can again be grouped into various categories according to their age. Adults, adolescents, tweens and infants. This study is basically aimed at the reactions of tweens on advertisements and to what extent.

The few studies done at parent child influences in purchasing have been divided between research on tweens and on teens. Research on tweens has been directed towards the relative influence of parents and peer group on teenagers purchasing decisions. This force is due to general belief that tweens rely more on parents for norms and value when they are younger and more on their peer group as they grow older.

### To what extent children are consumers?



The education commission of the States (HEW) developed some tests of consumer behaviour knowledge for youngsters of various ages.

In pilot tests around the nation, they scored poorly. The Federal Trade Commission document said that children interpret television advertisement differently and more incorrectly than adults. During childhood children go shopping or to a market place many times with their parents and observe how the products are purchased.

The very definition of the segment itself was also a creation of advertising. Mrs. P.N. Vasanti, Director, center for Media studies in the article 'Tween power' Business today, points out, "The children's segment was the least tracked consumer category in the country and it was only after the arrival of television channel such as cartoon network that was started getting some quantitative and qualitative data on it. In hindsight, that seems logical: channels needed to study the segment closely to sell themselves to advertisers. Thus, tween and tween market may have existed for a long time, but it was television that taught marketers to look at a segment.

*Tweens have more buying power than any other demographic under 21, says Vikram Nair, Assistant president Children's Department lifestyle, a retail chain.*

*R. Suresh, Deputy Manager, TNS Ladies, in his article 'Tween Mindset', says children in the 8-12 age groups are seen as tomorrow's consumers and this segment is important to companies from the point of view of entry and brand awareness.*

*Zarina Mehta, Head Programming, Hungama TV, a channel largely targeted at tweens describes in her article "Tweens Numbers" that, "this is a particularly relevant to a country such as... India where parents may not have been exposed to things as much as their kids.*

In some ways, eight is the age when children begin to define themselves, in terms of their parents, friends, school, activities, hobbies and the like. Marketers are hoping that by targeting tweens, they can get them to define themselves in terms of brands too.

While there may be 120 million tweens in India, the relevant audience for companies is smaller, 45 million, which is the number of children between the age of 8 and 12 that in large cities and belong to households from the higher reaches of the Socio-Economic Classification.

Thus, the only way of attracting these 45 million tween targets is through advertisements. TV and the Advertisements provide a perfect opportunity to teach tweens about commercialism and consumerism.

### Role of Advertisements

Advertisements play an important role in the promotional activity. It has a definite impact on the buying behaviour of consumers. A tween, whose buying motives are mainly influenced by emotions, is the main target of the present advertising campaign. To what extent these advertising copies succeed in winning the tween consumers is the topic for research? Advertisements play a considerable role in the promotion of consumer's products. Tweens being emotional consumers they are mostly influenced by the advertisements on the television. There are 3 main things that advertisements do they are as follows.

(a) Gives Information

(b) Motivation to buy

(c) Action Orientation

Hence the research tries to analyze the impact of advertising on Tweens Consumption behavior with respect to certain objectives.

The primary data collected from then market has been analyzed thoroughly and the impact of advertising on the consumption behaviour of tweens has been assessed. Based on the strength and

## **CUSTOMER PREFERENCES IN PURCHASE OF APPARELS USING ONLINE SHOPPING MOBILE APPLICATIONS**

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### **ABSTRACT**

In the present era technology plays an essential role. The buying behaviour of the customer has been changed due to advancement in technology. Traditionally, customer travels from one place to another to buy a product. Now-a-days customers prefer to buy products through online. The main reasons for the development of online shopping internet penetration, expanding number of online retailers, increasing number of purchasers, ease of shopping etc. Various online shopping applications have been introduced. The present paper aims to analyse the factors influencing the customers to do online shopping using mobile applications and also to identify the most preferred shopping applications.

**KEYWORDS:** online shopping, buying behaviour, Mobile applications, customer preference, apparels

### **I. INTRODUCTION**

World has been significantly changed with the development of innovation. In human life technology plays an important role as it provides immense opportunities. The Internet has become indispensable to families and societies at large. The major constituent that drives the development of internet usage is simple accessibility of mobile phones and various mobile data plans. Customers started buying products through online with the help of various online shopping mobile applications. Online shopping is a process where buying and selling takes place in a digital platform.

Currently, most of the people are very busy and they find online shopping as one of the simplest and easiest methods of shopping. As customers have mobile and various online application they can sit in the same place and buy products. Customers can visit various web stores and they have more choices to select their products. In online shopping people can get more information about the product before purchasing.

Customers can visit the web stores at any time. It is available for 24 hours a day and customers also have access to internet at any time. So it is advantageous for them to shop online. In online shopping the customers can compare the products and they can read product reviews and can get information about the warranty.

### **II. PRESENT SCENARIO OF ONLINE SHOPPING USING MOBILE APPLICATION**

Mobile Application has changed the business ecosystem. Mobile application industry have developed well and emerging as an important tool among market practitioners as it is easy for the marketer to connect directly with the customers easily. In India, e-commerce industry has been growing at a faster rate. Many customers are attracted by the concept of online shopping. Also Mobile phones have penetrated quickly and mobile shopping provides definite market opportunities for the marketer. In recent years, with the quick development in technology, smart phones have become very important. Those days the main function of the mobile is tele communication only but now various mobile apps made easy to buy many things. There are many innovative mobile applications which help customers to purchase items

by mobile phone and collect them at their home. Exposure to internet has been profoundly instrumental in the e-commerce success. It is mainly due to the different online trade businesses like Flipkart, Amazon, snap deal and eBay.

### III. OBJECTIVES

1. To analyse the factors influencing the customer's to do online shopping using mobile applications.
2. To identify the most preferred mobile application.

### IV. REVIEW OF LITERATURE

**Rudresha C.E et al** (2018) made an attempt to understand the consumer's view towards online shopping and also to identify the problems faced by the customer at the time of purchasing through online shopping. Even though, it is simple and convenient to buy the product people prefer traditional shopping. The main factor which motivates the customer is more discounts.

**Avadhesh Vyas & Dr. Gaurav Bisma** (2017) has conducted a study on customer preferences towards online shopping. It is found that the maximum number of respondents use online shopping because of anytime marketing facility. It is simple for the customers to get the products. Majority of the respondents are happy with amazon services. It is concluded that people enjoy online shopping.

**Dr. B.S. Bodla & Ms. Pinki Saini** (2017) have aimed to identify the customer preference for various products furthermore about the e-retailers. It is found that electronic items were given first preference for online shopping and followed by apparels. Among various e-retailers flipkart is considered as truly outstanding.

**Parag Sunil Shukla & Dr. Priti V. Nigam** (2018), have made an attempt to understand the difficulty in between associated purchasers in the present advanced age and the development web based shopping utilizing portable applications. As there is a quick development of smart devices, the growth of mobile applications has been slowly improved.

**Gulnaz Bannu P. & G.S.Vijaya** (2017) aims to understand the buying behaviour of the customer via website versus mobile application. It is identified that the consumers prefer to buy clothing, body care and entertainment through mobile application and also consumers use this mobile application due to portability, time and ease to use it. Convenience of mobile applications makes easy for the customers to buy online.

### V. METHODOLOGY

The present research work is analytical in nature based on survey method. The aim of the study is to analyse the factors influencing customers to do using mobile applications which has been investigated through primary and secondary data. Demographics like gender, age and occupation etc. has been explored with the help of primary data and Secondary Data. Primary data were collected with well-structured questionnaire. Secondary data are collected from various journals, books and internet.

**TABLE 1**  
**DEMOGRAPHIC PROFILE**

S. No	Factor	Classification	Number of Respondents	Percentage

## Mutual Fund Investors' Investment Behaviour- An Empirical Analysis

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### Abstract

Mutual Fund is a set or pool of money by the contribution of individual investors, as the investment offers an opportunity to invest in diversified instruments like shares, debentures and other securities. Therefore, investors of all categories could choose to invest on their own in multiple options but opt for mutual funds for sole reason that all benefits come in the package. Hence, the paper attempts to study the investment behaviour of investors in mutual funds. The research studies the concepts of investors' preference in selecting mutual funds, factors influencing investment decisions, association of demographic variables with investment decision and the problems faced by investors. The data collection was done with mutual funds investors in Chennai city with the well structured questionnaire using five point Likert scales. Further, the data analysis used for the study is percentage analysis, weighted mean rank and Chi-square analysis. The results reveal that, mutual fund investors invest based on the past experience through NPA and take expert advice (Fund Manager). Further, the investors who are salaried and professional in between the age of 36-45 have more than five years of investment experience. Further, the problem the investors face is risk factor is high as there is no safety for funds.

**Keywords:** Mutual Fund, Fund Manager, Investment, Investors.

### 1. INTRODUCTION:

Saving and investment are the major source of any country. The involvement of the RBI and SEBI has evolved in a big way by giving the investors an opportunity through the mutual fund industry. With the appropriate structure, awareness, schemes etc., the industry has attracted more number of investors (RBI, 2017). Subsequently, the consequences of the demonetisation have been to encourage greater use of mutual fund as an alternative to cash. It has shown a significant increase in the volume of sales and ultimately in the total Asset under management (AUM) of mutual funds (Indian Mutual Funds Report 2019). Being the trust of pools, the savings of a number of investors, they operate in both primary and secondary segment of the capital market, providing a buffer against market volatility. Currently, the mutual fund investors can save their money and time by the use of smart phones and internet for the transactions anywhere at any point of time. The investors can directly invest in mutual funds online by visiting the websites of mutual fund companies as they have launched e KYC option on their websites. Further, SIP (Systematic Investment Plans) offer investors immense opportunity to invest at regular intervals, look for capital appreciation and create wealth over the longer run (Ankit Goel & Rajendra K. Khatik (2017). Finally, when compared to developed countries, mutual funds attract more investment as compared to the banking sector. But in India, we lack awareness about the benefits and the schemes. Hence, it is important that irrespective to the risk factor, the investors should take intelligent decisions to generate better returns and mutual funds are definitely one of the ways to go about it (Tusar Kanti Ghosh).

### 2. STATEMENT OF THE PROBLEM

In India, the investor who invests in mutual fund scheme considered as an alternative to stock market, as they expect high returns on their investments than their investment in fixed deposits in commercial banks. But, when the investors do not receive their expected higher returns they get dissatisfied and continue to decline on trading. Hence, the investors need to maximise the returns on the funds

invested through them by analyzing before the investments and need to understand that all the investment cannot succeed an outperforming each other. Hence, the paper attempts to study the investor's investment behaviour and clarity while choosing their schemes and the criteria they keep at the time of investment.

### 3. REVIEW OF LITERATURE

According to Reshma Raju Mini (2020) Investment has a motive of earning a risk free, regular return. But, it depends upon the investment by the investor, taking into the consideration of income level and risk taking ability. When compare to other countries, the awareness level on mutual fund of our citizens are really low, this leads to stay away from such mode of investment. Hence, to make mutual funds familiar, the industry should take awareness campaigns, innovative financial instrument, advertisement etc. which can promote the individual as well as economic goals of the country.

Ankit Goel & Rajendra K. Khatik (2017) in their study reveals that many investors are aware of mutual funds but they do not show much interest towards investment in mutual funds. The study suggests that industries and government should come forward in getting investors more literate, by giving the confidence to invest in mutual funds.

Abdul Hasan Khan (2017) examined the awareness level of mutual fund investments among the investors and found that investment is very low because of they have a very little knowledge about the mutual fund which prevent them to invest in mutual funds to avoid risk bearing factors and danger of great loss. The research also observed that there is enough money with them in tire two cities of people but they are in confusion in absence of awareness.

Rakesh kumar (2016) evaluated the market penetration and investment pattern of mutual funds in India there is very large scope for penetration of mutual funds both geographically and investors classes .The huge hurdles are ignorance, risk aversion in India.Hence, the paper states that investors need to be made to look beyond the traditional avenues of investment through sensitization and education.

Roopadarshini & Nagaraj (2015) observed that in the present economic scenario the investors have different options available for investment and they have varied factors which motivates them for investing which is also governed by socio-economic profile which includes the good risk.

### 4. OBJECTIVES OF THE STUDY

The main objective of the study is to investigate mutual fund investors' investment behaviour in Chennai City.

- To study demographic profile and the investment preference of the investors in Mutual Fund.
- To analyze the factors influencing mutual fund investment decision and the reasons for early redemption of mutual fund.
- To study the association between demographic factors with investment decision of mutual fund and suggestion to overcome the problems faced by the investors.

### 5. HYPOTHESIS OF THE STUDY

- There is no factors influencing mutual fund investment decision among the investors in Chennai city
- There is no association between demographic variables with investment decision of mutual fund.

### 6. RESEARCH METHODOLOGY

The researcher used well prepared sequentially arranged questionnaire. The questionnaire prepared was divided into three parts, First part - demographic details of the investors, the second part is related to investor behavior on the various schemes of mutual funds and the third part is studies the association of demographic profile with the investment behavior. Primary Data was used for collection of data through questionnaire and secondary data was collected from the published articles from journals and website. The sample area selected for the study was Chennai City. The researcher

## CONSUMER PREFERENCE TOWARDS KIRANA STORES FOR PURCHASE OF ESSENTIAL ITEMS POST COVID – 19

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### ABSTRACT

This exploratory study was conducted with an object of understanding the consumer preference towards Kirana stores for purchase of essential items post Covid -19. The researcher adopted systematic random sampling method and collected responses from consumers of essential items in Chennai city. The collected responses were analysed using SPSS version 23.0 and statistical tools of Percentage Analysis, Descriptive Statistics, Mean-Based Ranking and Factor Analysis were applied to extract 4 main factors influencing consumer preference towards Kirana stores for purchase of essential items post Covid -19. Among the four factor identified, the most predominant one was Convenient Covid Preventive Factor (CCPF) followed by Benefit Factor (BF), Customized Quality Produce Factor (CQPF) and Inconvenience Factor (IF). The results of the analysis revealed that, consumer preference for Kiran stores for purchase of essential items increased dramatically post Covid -19 because of convenience, credit availability, flexible payment method and chances of preventing Covid -19 spread.

**Keywords:** Consumer preference, Kirana Stores, Post covid, Essential items, Grocery.

### INTRODUCTION

National wide Covid -19 lockdown brought a drastic change in the consumer purchase behaviour. According to the latest report of EY 'Sentiments of India – Pulse of the country, Kiranas', Kirana stores have emerged as a life saviour during the Corona Virus lockdown times. Consumers highly depended on Kirana stores for the constant supply of essential items and there was a positive transformation in the consumer perception and attitude toward Kirana stores post lockdown. Kirana stores also leveraged their strengths of proximity, personal touch as well as flexibility to retain existing customers and acquire new customer without much efforts. An impressive 79% of non-metro and 50% of metro cities Kirana stores experienced an increase in new customers visiting their stores. Nearly 80% of the Kirana stores national wide recorded business growth and an increase of 50% in consumer spending for food products from nearby Kirana stores. In the times of crisis, Kirana stores came to the rescue of consumers and enabled consumers to buy all necessary items with minimum spending. The inclusion of online presence and online payment made them a tuff competitor to the big giants of organised retail sector in India.

### REVIEW OF LITERATURE

Goswami & Mishra (2009) conducted an empirical study to understand the reasons for Indian consumer preference towards organised retailers over traditional Kirana stores for groceries shopping. A structured questionnaire was framed to explore consumer preference for organised retailers and Kirana stores. The study results indicates that consumer preference of stores is positively associated with location, helpful, cleanliness, quality, offers, trustworthy salespeople and negatively associated with convenience and travel time. Further, the researchers found, Kirana stores score high on location but low on offers, quality, cleanliness, helpfulness and trustworthy sales people.

# INFLUENCES OF CHANGE METHODS ON THE PERFORMANCES OF CHENNAI CITY BANK EMPLOYEES

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## ABSTRACT

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*All appears to change when we change -*

Henri Amiel

The purpose for this research paper is to identify change factors influencing on the performances of bank employees in Chennai city. In this research both Primary and secondary data were collected and analyzed. For primary data collection from bank employees of Chennai city Questionnaires were prepared and issued. Happened change, Reactive change, Anticipatory Change, Planned Change, Incremental Change, Operational Change, Strategic Change, Directional Change, Fundamental Change and Total Change are the variables considered for this research and the sample size for the research is n=220. The result shows that organizational change has positively influencing on employee's performance in banking sector of Chennai city.

**Keywords:** Organizational change, Employee performance, Banking sector, Change methods

## INTRODUCTION

In the present 21st Century, change and the successful implementation of change concept has become the foremost and important thing on the minds of organizational managerial boards. Change is unavoidable and happening everywhere and its need and impacts are increasing for any organization. The future success of all sectors based on the successful leaders change management techniques. In today's competitive world, change is required for continuous positive achievements. A competent change leadership is the most desired executive skill for the development of an organization.

Change may be positive or negative change but change is must for the innovative management to develop the performance of an organization. In an organization, Change is affecting the structure, Human Resource, technology, and other element of the organization. Change is happened by the pressure of both internal and external forces of the organization.

Change is the only constant element that cannot be changed and it is Universal. Change is happening continuously as a chain process at different levels and at different ways and means and Change comes from all directions like introduction of new technologies, Corporate restructuring, improvements in data analytics etc. contribute to the change and result in improved financial success, customer and employee satisfaction and loyalty and commitment.

**Organizational change** is "the course by which organization move from their present position to some desired future position to increase effectiveness and to develop an organizational system is disrupted by the internal and external forces of changes leads to alteration in the overall work atmosphere of an organization". (Kotter, 1996; Bommer et al., 2005)

Organizational change includes "Strategic changes, Mission and vision changes, Operational changes, Technological changes, changing the approach and perspective of employees, Counter resistance from different personnels of organisation and direct them to strategic changes of the organization". (McNamara, 2011).

**Employee performance** refers to the behavior of workers in their workplace and how well they perform their duties and responsibilities which are obligated by the management and an organization sets targets to each and every individual employee to performance towards its objective. The management and employees are functioning as a whole in hopes that the business offers good services to their customers, minimizes waste of materials and operates the work process effectively and efficiently and Human power is the actual valuable asset of any organization and performs a major part towards the organizational development. (Batool, 2013) It is essential for Banks to fully utilize their resources of both liquid and non-liquid resources as well as their workforce. (Kozarevic, Peric, & Delic, 2014).

**Banking industry** is playing very important services to the needy people in the financial sector. Every deal and transaction done by the Banks in India is for financial source and fund development and also Banks financial performance reflects directly on the Indian economy as well. Therefore, the employees who are working in Banks must be given more importance and tend to study their attitude towards changing environment. Add on to that, "In present scenario and need of Indian economy, the organizations need to recruit highly qualified, active and smart, dedicated, talented and skillful employees in order to achieve their goals and to score high positions in the profound competitive environment and by means of effective utilization of qualified employees, organizations can attain successful results and develop a remarkable productive work force". (Harrington, 2003)

### **STATEMENT OF THE PROBLEM**

This research paper aims to study the influences of Organizational change and application of its different methods such as Happened change, Reactive change, Anticipatory Change, Planned Change, Incremental Change, Operational Change, Strategic Change, Directional Change, Fundamental Change and Total Change and its impact on Employees performance particularly in the banking sector of Chennai city. This research study therefore serves to improve the understanding level of the types of organizational changes and its their role especially in the banks in Chennai city.

### **OBJECTIVES OF THE STUDY**

- To analyse literature and find out the variables that influences organizational change
- To analyze Bank employees understanding level of Management changes.
- To suggest a successful method of Change for Banks in Chennai city.

### **RESEARCH METHODOLOGY**

This research paper purpose and aim is to analyse the influences of organizational change methods towards Bank employees' performance of Chennai city. For this research, organizational change methods are independent variables and employee performance is assigned as dependent variable. Further, for primary data collection is done by issue of questionnaire and Nominal and Likert scales are used. The samples are selected for this study comprises of 350 questionnaires out of which 220 were found perfectly answered for study, so the sample size for this research paper is 220 and the data collected from the questionnaires were typed into SPSS where Descriptive statistics analysis has been applied to examine the relationships between of organizational change methods towards employees performance in banking sector of Chennai city.

### **REVIEW OF LITERATURE**

Researchers are identified by conducting empirical studies that few issues regarding employees new working environment is stressful due to the changes in the organizations because they are well practiced with the previous organizational working environment and such stress is led to less employee's morale resulting in the decrease of employee performance. (Ashford et al., 1989) as cited in (Nicolaidis & Katsaros, 2007).



### Review of literature

**Adnan Bataineh, Khaled (2019)** tested the relationship between work life balance and the employee performance among pharmaceutical employees in Jordan. The study revealed that the ability of the employee to manage stress and maintain work life balance significantly impacts the performance at workplace.

Work Life balance has become a potential area of research in the recent years due to various factors including work force diversity, increasing female workforce and the existence of dual earning families and single parents. Hence, the topic has become the hot cake among many researchers. (Aryee et al 2005; Edward & Rothbard 2000).

**Wallace (1999)** observed that work overload as the major factor that contributes to Work- Non-work conflict. It was also observed that additional family roles increase the work life imbalance.

**Martin (2012)** stated in the research results that women having a positive attitude towards the work were successful in maintaining work life balance. Patriarchal structure prevailing in India which demands women to devote more time to family related commitments worsen the Work Life Imbalance among working women. (Arora 2003).

**Kim (2014)** observed that affective commitment among the employees narrowed the work family conflict or in other words, helped to manage Work Life Balance. A higher level of autonomy, Flexible work schedule and Higher level of involvement were found to be dominant among self-employed compared to working professionals. Women incline towards family commitment and encounter greater level of stress and work life imbalance compared to men. (Parasuraman and simmers, 2001)

**Salma Sehlali and AbderRehan Hassi (2016)** explored the impact of work life balance of women employees in IT sector by adopting a qualitative methodology. The research results revealed that cultural assumption of women's household responsibilities play a dominant role in determining WorkLife Balance. It was suggested that extended maternity leave and telework can help women employees to improve their work life balance.

**Matthew and panchanatham (2011)** determined that Role overload, Dependent care issues, Time management issues and Insufficient social support were the crucial factors that determine work life imbalance among women employees. At the same time, facilities in the IT sector like flexi time, Work from home facilities, Part-time working opportunities can build a supportive environment.

Indian organizations, understanding the impact of WLB of employees on performance, have introduced several stress buster measures such as Canteen facilities, Programs for family and children, Yoga classes, Stress management workshops as a part of their employee welfare policies. Creation of such family friendly policies are necessary to reduce the stress arising out of work life balance. (Karamvir Singh and Priyanka, 2013; Neil Gilbert 2005; Geetha S and Selvarathnam D P, 2010; Fischimayr and Kollinger 2010)

### Objectives of the study

- To examine the demographic profile of the women IT employees in Chennai City
- To analyze the professional challenges and personal challenges towards Work life balance of respondents.
- To study the impact of the challenges faced by the women IT employees during COVID 19 for their work life balance.

### Hypothesis:

- There is no impact of factors influencing work life balance of women IT employees in Chennai City.

### Research Methodology

A questionnaire with appropriate statements were circulated among 103 female IT employees in Chennai City. Simple Random sampling method was adopted for collection of Questionnaire. Both Primary data and Secondary data are used in the study at appropriate places. The researcher applied

Percentage analysis, Descriptive analysis (Mean, Standard Deviation and Mean Rank and Regression Analysis for the study.

### Limitations of the Study

- The study has been conducted only in the Chennai city.
- The study assumes that the information given by the respondents are true, valid and reliable.
- The period of study covers 10 months during Pandemic.
- The study is restricted to Female employees of IT sector only.

### Data Analysis and Interpretation

**Table 1: Table showing the demographic profile of the respondents**

Demographic Variables	Options	Frequency	Percentage
Age	21-30 years	38	36.9
	31-40 years	28	27.2
	41-50 years	27	26.2
	Above 51 years	10	9.7
Designation	IT Analyst	32	31.1
	Associate Consultant	41	39.8
	Software Engineer	20	19.4
	Project Manager	10	9.7
Income	Less than 20,000	40	38.8
	20,001-40,000	20	19.4
	40,001-60,000	11	10.7
	60,001 and above	32	31.1
Family Type	Joint Family	63	61.2
	Nuclear Family	43	38.8
Marital Status	Single	50	48.5
	Married	53	51.5
Family Members	Less than 3	9	8.7
	4-6	84	81.6
	More than 6	10	9.7
Working Time before COVID-19	Below 8 hours	48	46.6
	Above 8 hours	55	53.4
Working Time after COVID 19	Below 8 hours	15	14.6
	Above 8 hours	88	85.4
Extended hours	Below 2 hours	18	17.5
	2-4 hours	85	82.5

### Interpretation:

From the above table, it can be observed that 36.9% of the respondents fall in the age category of 21-30 years, followed by respondents of 31-40 years of age group with 27.2%. This Distribution is justified, as the IT industry is generally dominated by employees of 21 years – 40 years age group. It is also observed that 39.8% of the respondents hold the designation of 'Associate Consultant' and 31.1% of the respondents work as IT analyst. An aggregate of 58.2% of the respondents have income below Rs.40,000 per month and only 10.7% of the respondents earn more than Rs.40,000 which correlated with the percentage of respondents working as Project Managers. Majority of the respondents (61.2%) are from Joint family and this distribution is much appropriate for the present study. 51.5% of the respondents are married and 81.6% of the respondents have a family size of 4-6 members, which again is a significant one for the study. 53.4% respondents stated that they work for more than 8 hours in pre COVID situation, whereas it is increased to 85.4% during COVID. It is also observed that 82.5% of the respondents have stated that the working hours are extended by 2 – 4 hours than before.

# A STUDY ON CONSUMER PREFERENCES TOWARDS THE PURCHASE OF GREEN PRODUCTS IN CHENNAI CITY

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## ABSTRACT

Quite possibly the main issues that the world confronting today is that of Environmental Pollution expanding as time passes and making hopeless harm the World. We need eco-accommodating items and interaction. There is expanding mindfulness on the different ecological issues which has driven a move in the manner purchasers approach their life. There has been an uncommon change in purchaser mentalities towards a green way of life. Individuals are effectively attempting to limit their effect on the climate. It is a test for ventures to protect shoppers and climate. Green showcasing from a more extensive perspective is corporate social obligation since it assists business with turning into a socially mindful as well. In Indian Consumer mindfulness about green advertising rehearses isn't far reaching is as yet advancing. This paper is an endeavour to comprehend Consumer Perception towards Green Marketing in setting of Indian market and investigates mindfulness and difficulties with green promoting rehearses. The overview based normal information is chosen and broke down.

**Keywords:** Green Products, Environmental Pollution, Green Marketing, Perception.

## INTRODUCTION

Green marketing is almost unavoidable as the market for socially liable goods is increasing greatly. Green marketing, or marketing a product or service based on its environmental friendliness, began in the late 1900s, when people became more aware of the impact businesses were having on this planet. After several tragic incidents, many regulations were passed, and organizations were formed to protect the environment. Concept of green marketing concerns with protection of ecological environment. Modern marketing has created a lot of problems. development in marketing activities resulted into rapid economic growth, mass production with the use of advanced technology, comfortable and deluxe life, style, severe competition, use of unhealthy marketing tactics and techniques to catch the attention of customers, exaggeration in advertising, liberalization and globalization, creation of multinational companies, retailing and distribution by giant MNCs, etc., created many problems. Departmental stores, specialty stores, and shopping malls are flooded with all types of useful as well as useless products. These all factors have threatened welfare of people and ecological balance. Mainly, giant factories have become the source of different pollutions. Production, consumption and disposal of a lot of products affect environment adversely. Extreme pollution has provoked the Nature and the Nature starts behaving in unnatural ways (in form of global warming v/s global cooling, heavy rains v/s draught, and other natural calamities like frequent tsunami, earthquakes, epidemics, cyclones and so forth). Economic growth via production and consumption threatens peaceful life of human being on the earth. Green marketing

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**WORK LIFE BALANCE AMONG WOMEN IT EMPLOYEES DURING COVID 19- (A  
Study with Special Reference to Chennai City)**

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**Abstract:**

The pandemic has made a change of approach as essential in every field. The employees are working harder at home ensuring a balanced way. But the responsibility should not rest entirely on the individual but it also coordinates with the family members. Hence, achieving a work life balance is just not worthwhile goal but it is essential too with a balanced mental health, physical health and long term economic success. Therefore, a study has made an attempt to analyze the work life balance among women IT Employees. The study has taken 103 respondents and used data tools like Percentage Analysis, Descriptive Analysis and Regression analysis using SPSS 20.0.

**Keywords:** Professional Challenges, Personal Challenges, IT Employees.

**Introduction**

The Indian society has experienced a sea change in terms of role and status quo of women in family and at work place in the 21<sup>st</sup> century. Exposure to educational opportunities and entrepreneurial ventures has turned the tables and women's presence is inevitable everywhere. Gender equality concept too has its own part in transforming the womenfolk as a challenging counterpart in the workplace. Growing aspirations and ambitions among working women are fueled by the prospects of fast-growing knowledge era along with changing mindset of the society. On the aspects of human, technological, organizational interface leads to a better quality of work-life and eventually to improve the quality of life in the community and society. Quality of work-life refers to the presence of favorable of a job environment for workforce and a positive QWL will lead to better Work-Life Balance. Work and family occupy an important place in the lives of humans and can cause Work Life Imbalance and conflict of competing goals. (Clark 2001; Voyandoff 2005). WLB has no picture-perfect model but varies at different levels at different phases of life. Managing WLB is of basic concern for many organization that aims at quality output. (Breitenecker & Shah 2018).

**Need for the study**

Increased expectation from the employers and the family, The urge to achieve or retain the position in their career and the necessity to balance the family has seriously impacted the physical and mental health of women employees to a greater extent. The pandemic played its own role in Work Life balance of women employees, where everyone mandatorily confined to home and Work From Home was the single option available for them. The paper aims to address the Work Life Balance issues of women in the pandemic period. Covid- 19 scenario has strongly conveyed the importance of talented and flexible workforce to the organization. On the other hand, it also made WorkLife Balance a lesser possible one to achieve with removal of time boundaries between work and family. Incompatible expectations of work and life roles posed a threat to work life balance among women employees. The current study also focuses on the strategies adopted by women to overcome stress and maintain workless balance.

**Statement of the Problem**

A larger set of Indian women have been negatively impacted and faced a worser workplace balance during pandemic due to longer working hours than usual as a result of work from home conditions. According to the survey report of 'aspire for her' an NGO, Womenfolk across sectors experienced perceptible impact on work life balance. The survey correlated WLB to four variables namely industry sector, occupational status, work experience and hierarchical position.

## A STUDY ON CONSUMER SATISFACTION TOWARDS GREEN PRODUCTS IN CHENNAI CITY

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### Abstract

The study investigated the impact of environmental concerns and perceived environmental knowledge on green purchasing attitudes. A casual study was conducted to check the impact of environmental concerns and perceived environmental knowledge on green purchasing attitudes. The survey method was used to collect data from 300 respondents who are the customer of the product. And the study concluded and results indicated a significant impact of both environmental concern and perceived environment knowledge on green purchase attitude. Green Purchasing, also referred to as Environmentally Preferable Purchasing (EPP) is vital, and not just because we'd need the resources of five (5) piles of earth to sustain us if everyone in the world consumed like the developed world did (and the US, Australia, and Canada in particular).

### INTRODUCTION

Green Purchasing, also referred to as Environmentally Preferable Purchasing (EPP) is vital, and not just because we'd need the resources of five (5) piles of earth to sustain us if everyone in the world consumed like the developed world did (and the US, Australia, and Canada in particular). It's important because purchasers, be they government, corporate, or institutional, yield a great influence over the future of the planet with every buying decision they make - and because every purchase has a hidden cost on the environment. So what is green purchasing? Simply put it's one of the three cornerstones of sustainable purchasing, where the opposite two cornerstones are sound policy and economic soundness. However, whereas economic soundness ensures that the general decision is sound from a life-cycle cost and company sustainability perspective, and whereas social policy addresses your need to be a responsible corporate citizen when it comes to human rights and welfare, green purchasing addresses the environmental impact of your buying decision.

One might think that purchasing green is the easiest criterion of the spend triumvirate to meet now that we have "organic" and "local" food and "eco-friendly" labeling and "energy-star" standards, but it is, in fact, the most challenging criterion! A food product have not a low carbon footprint just because it is "organic" or "local"; just because a product is "eco-friendly" when it used, does not mean that its production process was "eco-friendly"; and just because the product is "energy-star" compliant does not mean that it will have the best energy utilization.

### Brand Image

An organization that has gone green is seen as an honest corporate citizen. This increases its image in the eyes of the public

### Customer Satisfaction

An organization that goes green in response to customer concerns increases its levels of customer satisfaction, a key point in customer retention.

### Reduced Risk

Not only is any company that doesn't go green risking a run-in with the law by failing to suits green regulations, which are multiplying at the rate of Fibonacci's rabbits around the world, but it's also maintaining more liability than it must. Hazardous

## CONSUMER PREFERENCE TOWARDS KIRANA STORES FOR PURCHASE OF ESSENTIAL ITEMS POST COVID – 19

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### ABSTRACT

This exploratory study was conducted with an object of understanding the consumer preference towards Kirana stores for purchase of essential items post Covid -19. The researcher adopted systematic random sampling method and collected responses from consumers of essential items in Chennai city. The collected responses were analysed using SPSS version 23.0 and statistical tools of Percentage Analysis, Descriptive Statistics, Mean-Based Ranking and Factor Analysis were applied to extract 4 main factors influencing consumer preference towards Kirana stores for purchase of essential items post Covid -19. Among the four factor identified, the most predominant one was Convenient Covid Preventive Factor (CCPF) followed by Benefit Factor (BF), Customized Quality Produce Factor (CQPF) and Inconvenience Factor (IF). The results of the analysis revealed that, consumer preference for Kiran stores for purchase of essential items increased dramatically post Covid -19 because of convenience, credit availability, flexible payment method and chances of preventing Covid -19 spread.

**Keywords:** Consumer preference, Kirana Stores, Post covid, Essential items, Grocery.

### INTRODUCTION

National wide Covid -19 lockdown brought a drastic change in the consumer purchase behaviour. According to the latest report of EY 'Sentiments of India – Pulse of the country, Kiranas', Kirana stores have emerged as a life saviour during the Corona Virus lockdown times. Consumers highly depended on Kirana stores for the constant supply of essential items and there was a positive transformation in the consumer perception and attitude toward Kirana stores post lockdown. Kirana stores also leveraged their strengths of proximity, personal touch as well as flexibility to retain existing customers and acquire new customer without much efforts. An impressive 79% of non-metro and 50% of metro cities Kirana stores experienced an increase in new customers visiting their stores. Nearly 80% of the Kirana stores national wide recorded business growth and an increase of 50% in consumer spending for food products from nearby Kirana stores. In the times of crisis, Kirana stores came to the rescue of consumers and enabled consumers to buy all necessary items with minimum spending. The inclusion of online presence and online payment made them a tuff competitor to the big giants of organised retail sector in India.

### REVIEW OF LITERATURE

Goswami & Mishra (2009) conducted an empirical study to understand the reasons for Indian consumer preference towards organised retailers over traditional Kirana stores for groceries shopping. A structured questionnaire was framed to explore consumer preference for organised retailers and Kirana stores. The study results indicates that consumer preference of stores is positively associated with location, helpful, cleanliness, quality, offers, trustworthy salespeople and negatively associated with convenience and travel time. Further, the researchers found, Kirana stores score high on location but low on offers, quality, cleanliness, helpfulness and trustworthy sales people.

**CORDIAL LABELING OF S(n,m) GRAPHS**

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**ABSTRACT**

This paper deals with the cordial labeling of  $S(n,m)(n \geq 2m + 2)$  graph for certain odd values of 'm' and even values of 'n'.

**Key Words:** Graph labeling, Cordial labeling, S(n,m) graphs.

**1.Introduction**

**Definition 1.1:**The labelling of graph is the allocation of numbers to the vertices or edges or both under certain conditions.

Interest in graph labeling began with a conjecture by Kotzig-Ringel and a paper by Rosa[1]. Gallian [2] gave a comprehensive survey of graph labelings which is useful to know about the numerous graph labeling methods.

**Definition 1.2:**If we assign numbers to the vertices, then the labelling is called a vertex labelling and is called an edge labelling if we assign numbers to the set of edges.

**Definition 1.3:**A mapping  $f: V(G) \rightarrow \{0, 1\}$  is called a binary vertex labeling.

A binary vertex labeling induces an edge labeling  $f^+: E(G) \rightarrow \{0, 1\}$  defined by  $f^+(uv) = |f(u) - f(v)|$ . For  $i \in \{0, 1\}$ , let  $v_f(i)$  and  $e_{f^+}(i)$  be the number of vertices  $v$  and edges  $e$  with  $f(v) = i$  and  $f^+(e) = i$  respectively.

**Definition 1.4:**A binary vertex labeling of a graph  $G$  is called a cordial labeling if  $|v_f(0) - v_f(1)| \leq 1$  and  $|e_{f^+}(0) - e_{f^+}(1)| \leq 1$ .

**Definition 1.5:**A graph  $G$  is called cordial if it admits cordial labeling.

Cahit [3] has introduced cordial labeling as a variation of both graceful and harmonious labelings. Various results on cordial labeling could be seen in [6-15]. This paper determines the cordial labeling of  $S(n,m)$  ( $n \geq 2m + 2$ )( $m \geq 2$ ) graphs for  $m \equiv 1 \pmod{4}$  and  $n \equiv 0, 2 \pmod{4}$ . We consider the graph  $S(n,m)$  which is a quartic graph and also both Eulerian and Hamiltonian. The graph  $S(n,m)$  [4][5] consists of  $n$  vertices denoted as  $v_1, v_2, \dots, v_n$ . The edges are defined as follows: i)  $v_i$  is adjacent to  $v_{i+1}$  and  $v_n$  is adjacent to  $v_1$ . ii)  $v_i$  is adjacent to  $v_{i+m}$  if  $i+m \leq n$ . iii)  $v_i$  is adjacent to  $v_{i+m-n}$  if  $i+m > n$ .

**2. Cordial Labeling of S(n,m) Graphs:**

An  $S(n,m)(n \geq 2m + 2)$  ( $m \geq 2$ ) graph has  $n$  vertices and  $2n$  edges. Let  $v_1, v_2, \dots, v_n$  be the vertices and  $e_1, e_2, e_3, \dots, e_{2n}$  be the edges of  $S(n,m)$  ( $n \geq 2m + 2$ ) ( $m \geq 2$ ) graph. The edges  $v_i v_{i+1}$  for  $1 \leq i \leq n-1$  be  $e_1, e_2, \dots, e_{n-1}$ ,  $v_n v_1$  be  $e_n$ ,  $v_i v_{i+m}$  for  $i+m \leq n$  be  $e_{n+1}, e_{n+2}, \dots, e_{2n-m+1}$  and  $v_i v_{i+m-n}$  for  $i+m > n$  be  $e_{2n-m+2}, \dots, e_{2n}$ .

**Theorem 2.1:** The graph  $S(n,m)$ , ( $n \geq 2m + 2$ )( $m \geq 2$ ), for  $m \equiv 1 \pmod{4}$  and  $n \equiv 0 \pmod{4}$  is cordial.

**Proof:**

Let  $G$  be an  $S(n,m)$  graph, ( $n \geq 2m + 2$ ), for  $m \equiv 1 \pmod{4}$  and  $n \equiv 0 \pmod{4}$ . Let  $f: V(G) \rightarrow \{0, 1\}$  be a binary vertex labeling which induces an edge labeling  $f^+: E(G) \rightarrow \{0, 1\}$  defined by  $f^+(uv) = |f(u) - f(v)|$ , where  $V(G) = \{v_1, v_2, \dots, v_n\}$  and  $E(G) = \{e_1, e_2, e_3, \dots, e_{2n}\}$ . Let  $f$  be defined as follows:

$$f(v_i) = \begin{cases} 0, & 1 \leq i \leq n, i \equiv 0, 3 \pmod{4} \\ 1, & 1 \leq i \leq n, i \equiv 1, 2 \pmod{4} \end{cases}$$



The above defined labeling induces  $f^*$  as follows:

$$f^*(e_i) = \begin{cases} 0, 1 \leq i \leq 2n, i \not\equiv 0 \pmod{2} \\ 1, 1 \leq i \leq 2n, i \equiv 0 \pmod{2} \end{cases}$$

This labeling scheme satisfies the conditions  $|v_i(0) - v_i(1)| \leq 1$  and  $|e_{i+1}(0) - e_{i+1}(1)| \leq 1$ .

Hence  $G$  is Cordial.

**Illustration 2.1:**

Fig.1 illustrates the cordial labeling of  $S(12,5)$ .

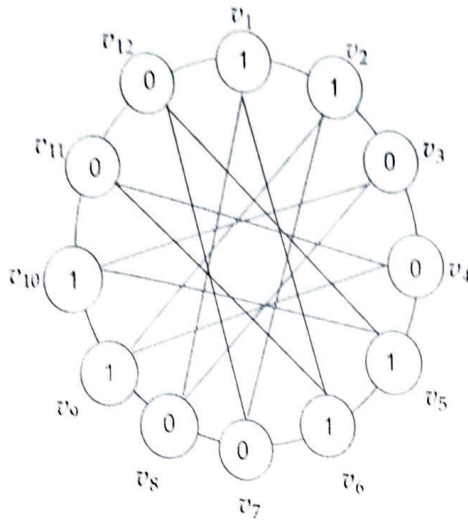


Fig. 1 :  $S(12,5)$

**Theorem 2.2:** The graph  $S(n,m)$ ,  $(n \geq 2m+2)(m \geq 2)$ , for  $m=5$  and  $n \equiv 2 \pmod{4}$  is cordial.

**Proof:**

Let  $G$  be an  $S(n,m)$  graph,  $(n \geq 2m+2)$ , for  $m=5$  and  $n \equiv 2 \pmod{4}$ . Let  $f:V(G) \rightarrow \{0,1\}$  be a binary vertex labeling which induces an edge labeling  $f^*:E(G) \rightarrow \{0,1\}$  defined by  $f^*(uv) = |f(u) - f(v)|$ , where  $V(G) = \{v_1, v_2, \dots, v_n\}$  and  $E(G) = \{e_1, e_2, e_3, \dots, e_{2n}\}$ .

Let us define  $f$  as follows:

$$f(v_i) = \begin{cases} 1, & 1 \leq i \leq m \\ 0, & m+1 \leq i \leq 2m \\ 1, & 2m+1 \leq i \leq n, i \equiv 0,3 \pmod{4} \\ 0, & 2m+1 \leq i \leq n, i \equiv 1,2 \pmod{4} \end{cases}$$

This labeling scheme induces  $f^*$  as follows:

$$f^*(e_i) = \begin{cases} 0, 1 \leq i \leq 2m-1, i \neq m, \\ 1, & i = m \\ 0, 2m \leq i \leq n, i \not\equiv 0 \pmod{2} \\ 1, 2m \leq i \leq n, i \equiv 0 \pmod{2} \end{cases}$$

$$f^*(e_{n+i}) = 1, 1 \leq i \leq m+2$$

$$f^*(e_{n+i}) = \begin{cases} 0, m+4 \leq i \leq n-3, i \not\equiv 0 \pmod{2} \\ 1, m+4 \leq i \leq n-3, i \equiv 0 \pmod{2} \end{cases}$$

Also,  $f^*(e_{n+i}) = \begin{cases} 0, & i = n-2 \\ 1, & i = n-1, n \end{cases}$

The above defined labeling satisfies the conditions  $|v_i(0) - v_i(1)| \leq 1$  and  $|e_{i+1}(0) - e_{i+1}(1)| \leq 1$ . Hence  $G$  is Cordial.

# Development of organic crystalline nature guanidinium nitrate (GuN): structural, frontier molecular orbital, optical, thermal, mechanical, theoretical and experimental SHG and Z-scan properties for NLO device uses

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## ABSTRACT

A transparent organic crystalline material guanidinium nitrate (GuN) was fruitfully harvested. Structure of GuN was verified by SXRD and its monoclinic system with Cm space group. Optical nature of GuN was confirmed by T%, n, Dn and optical limiting. Strength nature of the GuN was tested by optical and mechanical hardness. The energy gap, global reactivity descriptors, linear and non-linear optical parameters were calculated at B3LYP/6-31G (d,p) level. Second- and third-order effective non-linearity was deliberated experimentally.

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*Determination of SHG  $d_{eff}$  by Maker fringes studies on unidirectional grown guanidinium chlorochromate single crystal*

*for NLO device applications*

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# Determination of SHG $d_{\text{eff}}$ by Maker fringes studies on unidirectional grown guanidinium chlorochromate single crystal for NLO device applications

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## Abstract

Optically good-quality, organometallic bulk single crystal of guanidinium chlorochromate (GCC) was fruitfully grown by Sankaranarayanan–Ramasamy (SR) method. Translucent (-1 - 1 2) aligned unidirectional bulk single crystals of diameter 20 mm and length maximum up to 48 mm were grown over the growth period of 23 days with growth rate of 1 mm/day by the SR method. Optical studies reveal very high transmission of the crystal along the growth axis. Microhardness measurement along the growth axis enounces high mechanical stability of the crystal. Laser damage threshold value of 1.11 GW/cm<sup>2</sup> has been determined using Q-switched Nd:YAG laser radiation for GCC single crystal and reported for the first time. The second harmonic generation (SHG) of GCC crystal was investigated by the SHG Maker fringes technique. The refractive index and birefringence value of GCC crystal were found. Keywords NLO material \_ SR GCC crystal \_ Refractive index \_ Maker fringes

## Introduction

New materials with attractive nonlinear optical (NLO) properties have been the subject of profound intrigue in the view of the fact that these materials may give an adequate means of controlling and preparing signal-carrying light beams manipulated in photonic advancements. Semiorganic crystals have been put forward as a new approach for molecular engineering with interesting optoelectronics and NLO properties [1, 2]. Metal organic composite goes under a class of semiorganic NLO crystals, and they are portrayed by numerous polyhedrals with a innermost metal particle encompassed by various organic as well as inorganic ligands. The organic ligand is generally prevailing in the NLO response. Organometallic crystals commonly take part in the advantages of both inorganic and organics, which incorporate high optical nonlinearity, enormous bulk crystal, excellent mechanical hardness, chemical inactivity and high laser-induced damage threshold. Advancement of numerous novel mixes from guanidine cation and its subordinates has been latterly appearing on a large extent. An array of class of constituents with guanidinium cation [C(NH<sub>2</sub>)<sub>3</sub>]<sup>+</sup> are created and reviewed as inherent materials for nonlinear optics. Guanidinium, a polarizable acentric two-dimensional cation, underlying for optical nonlinear second harmonic generation can be viewed as a planar octupolar [3] able to form hydrogen-bonded crystal structures [4]. Guanidinium perchlorate [5] and zinc

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## COMPARISON OF ACO AND PSO ALGORITHM USING ENERGY CONSUMPTION AND LOAD BALANCING IN EMERGING MANET AND VANET INFRASTRUCTURE

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### Abstract

MANET and VANET are emerging technology in the current trend for research. VANETs are a subclass of MANETs. In MANET, nodes are connected by wireless channels in-network and each node acts as a router and as host. One of the scenarios of MANET is Vehicular ad-hoc networks (VANET). For communication in VANET, the vehicles interacting between themselves as well as along with roadside device stations, efficient routing Protocols are needed. This paper represents the performance of ACO (Ant colony optimization) and PSO (Particle Swarm Optimization) in MANET as well as VANET for efficiently transmit the data in the shortest route to reach the destination and also evaluates energy consumption and load balancing among MANET and VANET.

**Keywords:** ACO, PSO, VANET, MANET.

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### INTRODUCTION

In many applications, WSN is utilized. They have several limitations such as less energy, communication and computation ability. While designing protocols for WSNs these limitations are considered. Due to these limitations, many routing methods like MANETs and end-to-end devices are inappropriate [1]. MANET is infrastructure less mobile network which has two or more nodes equipped with network capacity, wireless communication without network control.

VANETs has a challenging class of MANETs. VANETs are usually distributed and self-organizing communication network made up of dynamic vehicles. It has very high node mobility as well as less degree of freedom in mobility patterns. For MANETs they are a number of routing protocols [2] but this paper deals with VANET with Adhoc routing protocols which is used in unpredictable conditions.

MANET has more importance in military, commercial, private and public sectors because of increased use of handheld wireless devices like cell phones, tablet, computers, PDAs, and so on. Openness, as well as the flexibility of MANET, makes attractive for different types of applications like emergency search as well as rescue operations, military communication, firefighting, disaster recovery and so on. [3] It WLAN, which has no centralized structure like access points or base stations. To give proper communication between 2 mobile nodes in MANETs direct transmission range. In multi-hop fashion, intermediate nodes are utilized to forward packets. Consider all ad hoc routing protocols in mobile nodes has cooperative, trustworthy, reliable in the network [4]. Without any infrastructure, it can data are

transmitted from sender to receiver. Any node can work as a router which receives as well as send packets [5]. By using the clustering method, route traffic delay is reduced as well as data transfer control is enhanced when depends on the choice of routing protocol type. To obtain optimization and reinforce Quality of Service (QoS) is the main objective of the smart city in urban resources. Using several factors such as energy consumption, throughput, packet loss and end-to-end delay, QoS is calculated [6].

### Related Work

R Manikandan et al., (2019) [7] presents energy-efficient load balancing (EELB) technique for changing load handling and energy efficiency advantages. By measuring the battery power of nodes, it can handle various traffic rates to achieve non-overloading energy constraints as well as seamless communication. To ensure prolonged link availability, for distribution of traffic flows on residual energy as well as nodes capacity, it manages network communication. Using MATLAB, the performance of this method is calculated by using parameters like the first node dies time, the signal at BS and Throughput.

Osamah I Khalaf et al., (2015) [8] proposed performance analysis of 2 significant reactive routing protocols like Dynamic Source Routing (DSR) as well as Ad-Hoc on Demand Distance Vector Routing (AODV). In terms of route discovery time, end-to-end delay, number of hopper route are compared. DSR maintains low overhead even in presence high mobility rate.

## AN EFFICIENT DETECTION AND SEGMENTATION OF BRAIN TUMOR USING ROBUST ACTIVE SHAPE MODEL

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### Abstract:

A tumor is a mass of tissue that becomes crazy of the customary powers that control development Brain tumors are an irregular and uncontrolled multiplication of cells. An auxiliary or metastatic mind tumor happens when malignant growth cells reach out to the cerebrum from the essential disease in an alternate part of the body. The imaging assumes a focal job in the determination of cerebrum tumors. A proficient Ada booster calculation is proposed for mind tumor identification dependent on advanced picture division. A cerebrum tumor might be considered among the most provoking tumors to treat, as it includes the organ which isn't just responsible for the body. Our technique comprises of two central handlings of the novel Robust Active Shape Model (RASM) coordinating strategy with emphasis used to section the diagram of the cerebrum generally. The underlying situation of the RASM is discovered utilizing a rib confine discovery technique. Second, an ideal surface discovering approach is used to adjust the underlying division result to the mind further. Left and right mind are divided exclusively in Artificial Neural Network Approach for Brain Tumor Detection, which gave the edge example and section of the cerebrum and cerebrum tumor with an improved outcome.

**Key-words:** RASM, Adabooster algorithm, rib cage detection, Artificial Neural Network

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### INTRODUCTION NEURAL NETWORK

Different sorts of neural-arrange engineering including multilayer preceptor (MLP) neural system, spiral premise work (RBF) neural system, self-sorting out guide (SOM) neural system, and probabilistic neural system (PNN). An essential measurable establishment in Bayesian estimation hypothesis and its simplicity of preparing make PNN a helpful device for taking care of numerous order issues. Be that as it may, it requires a broad neural system to examine a whole picture with the monstrous number of interconnected frameworks and its related system size, the areas of example layer neurons just as the estimation of the smoothing parameter.

### ARTIFICIAL NEURAL NETWORKS (ANNS)

It has been created for a wide scope of utilizations, for example, work estimate, include extraction, advancement, and arrangement. Specifically, they have been intended for picture improvement, division, enrollment, include extraction, and article acknowledgement and grouping. Among these, object acknowledgement and picture characterization are progressively imperative as it is a basic advance for significant level handling, for example, cerebrum tumor grouping. Multi-Layer Perceptron (MLP), Radial Basis Function (RBF), Hopfield, Cellular, and Pulse-Coupled neural systems have been utilized for picture division. These systems can be ordered into feed-forward (acquainted

and input (auto-cooperative) systems. The underlying classifier is dependent on feed-forward fake neural system (FF-ANN) and the resulting classifier dependent on Back-Propagation Neural Network. The classifiers have been utilized to characterize subjects as ordinary or anomalous MRI cerebrum pictures.

Picture division is a technique that segments a picture into disjuncting sections with each fragment having comparable properties, for example, force, shading, limit, and surface. By and large, three primary sorts of picture highlights are utilized to guide picture division, which are force or shading, edge, and surface. Picture division techniques fall into three primary classes: power-based (or shading based), edge-based, and surface-based division. Power-based division accept that a picture is made out of a few articles with steady force.

### ROBUST ACTIVE SHAPE MODELS

The RASM model is prepared from physically attracted shapes preparing pictures. The RASM model finds the principle varieties in the preparation information utilizing Principal Component Analysis (PCA), which empowers the model to naturally perceive if a form is a conceivable/right article shape. Biomedical pictures as a rule vectors  $x$ . Before we can perform the factual examination on containing complex items, which will differ in appearance these vectors, it is indispensable that the shapes spoke to essentially starting with one picture then onto the next.

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**Abstract :** In 1991 Gnanajothi[3] introduced a labeling method called odd graceful labeling. An odd graceful labeling is an injection  $f$  from  $V(G)$  to  $\{0, 1, 2, \dots, (2q-1)\}$  such that when each edge  $xy$  is assigned the label or weight  $|f(x)-f(y)|$ , the resulting edge labels are  $\{1, 3, 5, \dots, (2q-1)\}$ . A graph which admits an odd graceful labeling is called an odd graceful graph. In this paper we have prove that the graph obtained by attaching each vertex of cycle with the subdivided uniform shell bow graph is odd graceful.

**Keywords:** Odd Graceful Labeling, Cycle, Shell Graph, Subdivided Shell Graph, Subdivided Uniform Shell Bow Graph.

## I. INTRODUCTION

A Graph labeling is one of the important areas in graph theory. A graph labeling is an assignment of integers to the vertices or edges or both subject to certain condition. Graph labeling was introduced in the late 1960's. The study on graph labeling began with the introduction to  $\beta$ - valuation by Rosa [9] in 1967. Golomb [4] called this  $\beta$ - valuation as graceful labeling in 1972. A graceful labeling of a graph  $G$  with ' $q$ ' edges and vertex set  $V$  is an injection  $f: V(G) \rightarrow \{0, 1, 2, \dots, q\}$  with the property that the resulting edge labels are also distinct, where an edge incident with vertices  $u$  and  $v$  is assigned the label  $|f(u)-f(v)|$ . A graph which admits a graceful labeling is called a *graceful graph*. In 1991 Gnanajothi [3] introduced a labeling method called odd graceful labeling. An odd graceful labeling is an injection  $f$  from  $V(G)$  to  $\{0, 1, 2, \dots, (2q-1)\}$  such that when each edge  $xy$  is assigned the label or weight  $|f(x)-f(y)|$ , the resulting edge labels are  $\{1, 3, 5, \dots, (2q-1)\}$ . A graph which admits an odd graceful labeling is called an odd graceful graph. Gnanajothi [3] also proved that the following graphs are odd-graceful: The paths  $P_n$ , the cycle  $C_n$  if and only if  $n$  is even. Combs  $P_n \odot K_1$  (graphs obtained by joining a single pendant edge to each vertex of  $P_n$ ), books, crowns  $C_n \odot K_1$  (graphs obtained by joining a single pendent edge to each vertex of  $C_n$ ) if and only if  $n$  is even, the disjoint union of copies of  $C_4$ , the one-point union of copies of  $C_4$ , caterpillars, rooted trees of height 2.

Deb and Limaye [1] have defined a shell graph. A shell graph is defined as a cycle  $C_n$  with  $(n-3)$  chords sharing a common end point called the apex. It is denoted by  $C(n, n-3)$ . In 2013, Jeba Jesintha J and Ezhilarasi Hilda K [5] have define shell bow graph, uniform shell bow graph, subdivided uniform shell graph and subdivided uniform shell bow graph. The subdivided shell graph is a shell graph in which the edges in the path of the shell graphs are subdivided. A subdivided uniform shell bow graph is a one vertex union of two subdivided shell graphs of same order. Jeba Jesintha J and Ezhilarasi Hilda K [5],[6],[7] [8] proved that subdivided uniform shell bow graphs, subdivided uniform shell graphs are odd graceful. An exhaustive survey on odd graceful labeling refer to dynamic survey by Gallian [2]. The real life application of odd graceful labeling are the traditional social network, online communities, security control, radar tracking and remote control. In this paper we prove that the graph obtained by attaching each vertex of cycle with the subdivided uniform shell bow graph is odd graceful.

## II. DEFINITIONS

In this section we give some definitions.

**Definition 1** The *shell graph* is defined as a cycle  $C_n$  with  $(n-3)$  chords sharing a common end point called the apex. Shell graph are denoted as  $C(n, n-1)$  shell graph is also called as Fan graph  $F_{n-1}$ . The shell graph  $C(8,5)$  is shown in Figure 1

# APPLICATION OF STOCHASTIC DIFFERENTIAL EQUATIONS IN RL CIRCUIT USING AUTOREGRESSIVE AND RANDOM RUNGE KUTTA FOURTH ORDER METHOD

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## ABSTRACT

In this paper, we determine the deterministic and stochastic values of RL circuit by adding the noise terms in the circuit. A discrete and continuous case numerical solutions are obtained from first order Autoregressive model and Random Runge Kutta fourth order method. By comparing the numerical solutions, we observed that discrete case Autoregressive model gives more efficient values than continuous Random Runge Kutta fourth order method.

**Keywords:** Stochastic Differential Equations, First Order Autoregressive Model, Random RungeKuttaFourth Order, RL Circuit.

## I. INTRODUCTION

A Stochastic Differential Equation is comprised of differential equation that includes at least one of the stochastic process the resulting solution is also stochastic process [1]. Rezaeyan and Farnoosh proved that the discrete case Autoregressive model gives more accurate than continuous case EM method [2]. Tarun Kumar Rawat & Harish Parthasarathy showed that the deterministic models are always accompanied by stochastic case, when we added the random variables and also proved that Monte Carlo method does not give explicit results and used the method for design optimization [3]. The mean square convergence using random Runge-Kutta method was proved by Khodabin and Rostami and illustrated numerical examples using different types of methods and obtained more accuracy results using suitable method [4].

## II. PRELIMINARIES

### Definition 2.1

The Ito Integral is defined as the limit in the quadratic mean.

$$\int_0^T f(s, Y(s)) dW(s) = \lim_{\lambda_n \rightarrow 0} \sum_{i=1}^n f(t_{i-1}, Y(t_{i-1})) [W(t_i) - W(t_{i-1})] \quad (2.1)$$

If the integrand  $f$  is measurable and  $\int_0^T E(|f(s, Y(s))|^2) ds < \infty$  then the limit exists in equation (2.1) [2].

### Theorem 2.1: One Dimensional Ito Formula



Let  $U_t$  be an Ito processes given by  $dU_t = A dt + B dW_t$  and  $f(t, x) \in C^2([0, \infty) \times \mathbb{R})$ , then

$V_t = f(t, X_t)$  is an Ito process then,

$$dV_t = \frac{\partial f}{\partial t}(t, X_t)dt + \frac{\partial f}{\partial x}(t, X_t)dX_t + \frac{1}{2} \frac{\partial^2 f}{\partial x^2}(t, X_t)(dB_t)^2 dt$$

where  $(dX_t)^2 = (dX_t)(dX_t)$  is determine, according to the rules

$$ds \cdot ds = ds \cdot dB_t = dB_t \cdot ds = 0, dB_t \cdot dB_t = ds$$

**Theorem 2.2**

Let  $f(Y(t), t): \mathbb{R} \times I \rightarrow L_2$ , where  $\mathbb{R}$  is a bounded set. Then it satisfies the following condition

1. The function  $f(Y, t)$  is randomly bounded uniformly continuous
2. It satisfies the mean square Lipschitz condition, then

$$\| f(Y, t) - f(Z, t) \| \leq k(t) \| Y - Z \|$$

Where

$$\int_0^T k(t) dt < \infty.$$

Then (1.1) is mean square convergent of the random fourth order RungeKutta Scheme.

**2.1 Properties of Gaussian Noise**

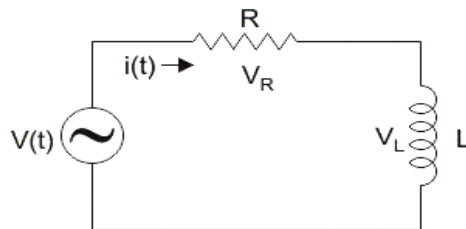
1.  $E[W'(t)] = 0$
2.  $E \left[ \int_0^t g(s)W'(s)ds \right] = 0$
3.  $E \left[ \int_0^t g(s)w'(s)ds \right]^2 = \int_0^t g^2(s)ds$

**III. MATHEMATICAL MODELING OF RL CIRCUIT**

The following equation represents the mathematical model of RL Circuit,

$$L \frac{di}{dt} + RI(t) = V(t), I(0) = I_0$$

where  $R, L$  are constants



$$L \frac{di}{dt} + RI(t) = V(t) \text{----- (3.1)}$$

# Mathematical Modeling of RLC Circuit Using Theory and Applications of Kalman Filtering

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**Abstract:** *In this research article, an application of continuous Kalman Filtering for an RLC Circuit is presented. In addition of white noise term, the deterministic model of the circuit is changed as stochastic source and the resultant solution is computed using Ito formula, which is the charge of the filtering problem for the RLC circuit.*

**Keywords:** *Stochastic Differential Equation (SDE), Kalman Bucy Filter, White Noise, Ito formula, RLC circuit.*

## 1. INTRODUCTION

Real modeling system of ordinary differential equations (ODEs), ignore the notice of stochastic effects. The differential equations can be change into stochastic differential equation by adding the arbitrary elements and phrase the stochastic equations [1] which gives at least one of the terms is a stochastic process, the resultant is also a stochastic process.

SDEs take part in an appropriate role for numerous application areas such as environmental modeling, engineering, biological modeling, etc. Several researchers used the application of SDEs to investigate the radar scattering and wireless communications. Field and Tough [2,3] have efficiently used SDEs in K-distributed noise in electromagnetic scattering. Charalambous and et al, [4] used SDEs equations to represent multipath fading channels. To prove SDE model they used Meticulous mathematical analysis and computer simulation method. A first-order stochastic auto regressive (AR) model is formed directly with the time variable by discretizing the SDE model. Many researchers have studied in modeling of electrical circuits which is the major application of SDEs. W. Kampowsky and et al, illustrated by applying white noise [5] of electrical circuits to classify and numerical simulate. C. Penski described its application in circuit simulation using new numerical solution for SDEs with white noise [6]. For modeling a series of RC Circuit using different application of noise terms using Ito stochastic calculus including numerical solution was proved by T. Rawat[7].

However, E. Kolarova proved the applications of stochastic integral equations using RL Circuits [8]. On the automated formal confirmation of analog/RF circuits employed by R. Narayanan and et al. The hitch in filtering has an significant branch for the SDEs. Instinctively, an optimal way of observing the problem is to filter the noise terms. In RC and RL circuit the deterministic, stochastic model was found [9, 10]. Basically, the filtering problem based on a series of noisy observations, gives a formula for estimating the state of a system, which resulting the noisy linear differential equations.

## 2. STOCHASTIC DIFFERENTIAL EQUATION

A Stochastic Differential Equation is comprised of differential equation that includes a stochastic process resulting in a solution which is also a stochastic process. Let  $\theta$  be the probability space, and  $R$  is a collection of all  $Y_t, t \in P$  of random variables which represents a stochastic process with state space and also takes values in  $R$  for the Parameter  $P$ . If  $P$  is countable, then the process is discrete otherwise continuous. A stochastic process is to describe the some randomness in an uncorrelated white Gaussian noise.

The general scalar SDE is of the form

$$dX(t) = \alpha(t, X(t))dt + \beta(t, X(t))dV(t) \quad (2.1)$$

where  $\alpha(t, X(t)) : [0, T] \times R \rightarrow R$  and  $\beta(t, X(t)) : [0, T] \times R \rightarrow R$  are drift & diffusion coefficients and  $dV(t)$  is the wiener process.

The integral form of SDE is given by

$$X(t) = x_0 + \int_0^t \alpha(s, X(s))ds + \int_0^t \beta(s, X(s))dV(s) \quad (2.2)$$

Here, the integral  $ds$  is ordinary integral and  $dV(s)$  are stochastic integrals.

Let  $X(t)$  be the solution of SDE (2.1)

Let  $\sigma(t, Y(t)) : (0, \infty) \times R \rightarrow R$  be a double differentiable function.

The function  $U(t) = \sigma(t, Y(t))$  satisfies

$$dU(t) = \frac{\partial \sigma}{\partial t}(t, Y(t)) + \frac{\partial \sigma}{\partial x}(t, Y(t))dX(t) + \frac{1}{2} \frac{\partial^2 \sigma}{\partial x^2}(t, Y(t))(dY(t))^2 \quad (2.3)$$

where,  $d(Y(t))^2 = dY(t).dY(t)$  satisfies the condition

$$dt.dt = dt.dV(t) = dV(t).dt = 0, dV(t).dV(t) = dt$$

## 3. THE THEORY OF KALMAN FILTERING

$$\text{Suppose } \frac{dX(t)}{dt} = a(t, X(t)) + \tau(t, X(t))U(t), t \geq 0 \quad (3.1)$$

where  $a$  and  $\rho$  satisfy conditions

$$\begin{aligned} &|a(t, x)| + |\tau(t, x)| \leq K(1 + |x|); |a(t, x) - a(t, y)| \\ &+ |\tau(t, x) - \tau(t, y)| \leq M|x - y|; x, y \in R, t \in [0, T] \end{aligned}$$

For some constant  $K, M$  and  $U(t)$  is white noise.

**Theorem 3.1:** The one-dimensional Kalman Bucy filter

The 1-dimensional solution  $\hat{X}(t)$  of the linear filtering problem

Linear system:

$$dX(t) = E(t)X(t)dt + F(t)X(t)dU(t); E(t), F(t) \in R \quad (3.2)$$

Linear Observation:

$$dZ(t) = L(t)X(t)dt + N(t)dV(t); L(t), N(t) \in R \quad (3.3)$$

which satisfies the SDE

$$d\hat{X}(t) = \left( E(t) - \frac{L^2(t)S(t)}{N^2(t)} \right) \hat{X}(t)dt + \frac{L(t)S(t)}{E^2(t)} dZ(t); \hat{X}(0) = E[X(0)] \quad (3.4)$$

where,  $S(t) = E \left[ \left( X(t) - \hat{X}(t) \right)^2 \right]$  gratifies the Riccati equation

# A Retrial Queuing System Operating in a Random Environment Subject to Catastrophes

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**Abstract:** An one server retrial lineup system operating in a uncertain environment subject to server failure along with repair is analysed. The environment is in any one of the  $m + 1$  states  $0, 1, 2, \dots, m$ . The environmental state  $0$  denotes to the state that the server is undergoing repair. The mean  $\frac{1}{\eta_0}$  is exponential to the repair time. Throughout repair time, customer is not allowed to join the orbit. Instantaneously once the repair, the system drives to phase  $i$ ,  $i \geq 1$  with probability  $q_i$ , where  $\sum_{i=1}^m q_i = 1$ . When the environment is in stage  $i \geq 1$ , the model acts like an  $M(\lambda_i)/M(\mu_i)/1$  queue with service and arrival rate  $\mu_i$  and  $\lambda_i$  respectively. There is no waiting room and any arriving customer who discovers the server idle joins for service; else (in case of busy server) goes to an orbit of infinite capacity and retries for service with rate  $v$ . The system resides in phase  $i$  for a random intermission of time is exponential with mean  $\frac{1}{\eta_i}$  and at the end of the sojourn period, a catastrophe occurs washing out the customers (if any) in the orbit and also the customer (if any) undergoing service and the system moves to phase  $0$ : The system steady-state behaviour is derived.

**Keywords:** Queueing System, Retrial, Catastrophe, Repair.

**AMS Subject Classification:** 60K20, 60K25, 90B22

## 1. INTRODUCTION

We see that, the Queueing systems working on randomly occurring tragedies have been studied by, Sengupta [1], Yechiali [2], Chakravarthy [3], Krishna Kumar et al. [4], Sudhesh [5], Paz and Yechiali [6] and Udayabaskaran and Dora Pravina [7]). The steady-state behaviour of an M/M/1 model queue operating in uncertain environment subject to disasters where the underlying environment is described by a n-phase continuous-time Markov chain have been analysed by Paz and Yechiali [6]. Udayabaskaran and Dora Pravina [7] have analysed the time-dependent behaviour model of Paz and Yechiali [6]. However, to our knowledge, retrial queueing systems operating in random environment and subject to randomly occurring disasters have not been studied so far in literature. The purpose of the present paper is to perform a stochastic analysis of a retrial queueing system operating in an

uncertain conditions subject to catastrophes. We find the steady- state probability distribution of the queueing system.

The paper is organized as follows: the model of a retrial queueing system have been analysed in section 2. The time-dependent probabilities of the system equations will be discussed in section 3. Section 4 obtains obvious expressions in the steady-state probabilities.

## 2. EXPLANATION OF THE MODEL

We study a single server queueing system operating in an uncertain condition. The server fails due to the occurrence of catastrophes and it is immediately taken for repair. The mean  $\frac{1}{\eta_0}$  is exponential to the repair time. As in Paz and Yechiali [3], we assume that the environment is in any one of the  $m+1$  states  $0, 1, 2, \dots, m$ . The environmental state 0 corresponds to the state that the server is undergoing repair. Instantaneously once repair, the server returns to work immediately without delay in state  $i, i \geq 1$  with probability  $q_i$  where  $\sum_{i=1}^m q_i = 1$ . when it is in state  $i$ , customers arrive to externally to the system from outside with Poisson process with rate  $\lambda_i, i = 0, 1, 2, \dots, m + 1$ . These customers are called prime customers. There is no waiting room in the system and any prime customer who knows the server is busy immediately will move to an infinite capacity orbit and retries later for getting assistance. Customers in the orbit follow the classical retrial policy with rate  $n\nu$ , where  $n$  is the number of people in the orbit retrying for service. The system resides in phase  $i$  for a uncertain time interval which is exponentially  $\frac{1}{\eta_i}$  as mean and at the instant of the end of the living period in phase  $i$  a disaster occurs washing out all the customers and the system goes to phase 0. During phase 0, no customer is allowed to join the orbit. When the conditions is in phase  $i \geq 1$ ; the system performs like an  $M(\lambda_i)/M(\mu_i)/1$  queue with arrival rate  $\lambda_i$  and service rate  $\mu_i$ . Let  $S(t)$  be the state of the server (0 for undergoing repair, 1 for idle at service and 2 for actively serving) at time  $t$ , Let the state of the conditions at time  $t$  be  $E(t)$ ; and the number of customers in the orbit at time  $t$  be  $X(t)$ . Let  $Z(t) = (S(t), E(t), X(t))$ . Then the three-dimensional  $\{Z(t) : t \geq 0\}$  is Markov. The state space of the process is known by  $\Omega = \{(i, j, k) | i = 0, 1, 2; j = 0, 1, 2, \dots, m; k = 0, 1, 2, \dots\}$ . We assume that a catastrophe has just occurred at time  $t = 0$ : Then, we have  $Z(0) = (0, 0, 0)$ . We define the probability distribution of  $(S(t), E(t), X(t))$  by

$$p(i, j, k, t) = Pr[Z(t) = (i, j, k) | Z(0) = (0, 0, 0)] \quad (1)$$

In the next section, we derive the governing integral equations for  $p(i, j, k, t)$ .

## 3. GOVERNING EQUATIONS

Standard probabilistic arguments yield the following integral equations for  $p(i, j, k, t)$ .

Case (i)  $(0, 0, 0) \in \Omega$  : For the system to be in state  $(0, 0, 0)$  at time  $t$ , one of the following equally exclusive and exhaustive events should occur: (a) No event has taken place up to time  $t$ . (b) The system was in state  $(i, j, k)$  or  $(2, j, k), j = 0, 1, 2, \dots, m; k = 0, 1, 2, \dots$  at time  $u \in (0, t)$ , a catastrophe occurred in  $(u, u + \Delta)$  and no event has occurred thereafter up to time  $t$ : Consequently, we get

$$p(0, 0, 0, t) = e^{-\eta_0 t} + \sum_{j=1}^m \sum_{k=0}^{\infty} \int_0^t [p(1, j, k, u) + p(2, j, k, u)] \eta_j e^{-\eta_0(t-u)} du. \quad (2)$$

Case (ii)  $(1, j, 0) \in \Omega, j = 0, 1, 2, \dots, m$  :

$$p(1, j, 0, t) = \int_0^t [p(1, j, k, u) + p(2, j, k, u)] \eta_j e^{-\eta_0(t-u)} du. \quad (3)$$

Case (iii)  $(1, j, k) \in \Omega, j = 0, 1, 2, \dots, m; k = 0, 1, 2, \dots$  :

$$p(1, j, k, t) = \int_0^t [p(2, j, k, u) \mu_j e^{-(\lambda_j + \eta_j + \nu)(t-u)} du. \quad (4)$$