

## **Exploring the Remote Collaboration Working In Hr Trends with Reference from Online Source**

**Dr. S.Vijaya Kumari**

*Asst Professor, Patrician College Of Arts and Science*

**Ms.J.Dharshana**

*Asst Professor, Patrician College Of Arts and Science*

---

Date of Submission: 14-04-2021

Date of Acceptance: 28-04-2021

---

### **I. INTRODUCTION:**

Organizations and enterprises that were already equipped with the tools for remote work and collaboration managed to continue their operations without any interruption.

The COVID-19 pandemic caught everybody unawares and upended how this world functioned. Nobody had anticipated that this outbreak would come down so heavily upon individuals, organizations, and governments globally. With all kinds of businesses severely hit, this has been the year enterprises worldwide have gone from talking about remote working plans to actually putting them into action. Millions of people—including many who had never previously worked from home—have been forced into working from their homes all of a sudden.

Organizations and enterprises that were already equipped with the tools for remote work and collaboration managed to continue their operations without any interruption. However, many businesses had to deal with the daunting task of adapting processes such as recruiting and onboarding new talent to the current circumstances. As there's no physical office to welcome new employees and connect them with their colleagues, the HR managers need to think of new strategies to bring the onboarding and training processes in line with the new normal.

In the past, remote employees have had a bad reputation. Many employers believed their workforce would be too easily distracted at home, where their managers couldn't keep an eye on their direct reports.

Remote work was very rare a decade ago. Working from home was usually only available as a special arrangement to accommodate families in specific cases. However, teleconferencing and telework technology have advanced to the point where some businesses thrive with completely remote teams. In fact, it's not uncommon for businesses to allow their employees to work from home once or twice a week.

Remote work can also help prevent the spread of illness, helping companies avoid lost productivity and protecting public health. For example, the outbreak of COVID-19 prompted many employers to shift to a remote work model for all employees possible in a bid to limit the spread of the coronavirus.

To determine the effectiveness of communication technology and working remotely, we'll examine the history of working remotely, the current state of the workforce, and predictions for the future of remote employment.

### **IS REMOTE WORKING EFFECTIVE?**

A decade ago, most employers would have balked at the idea of employees regularly working from home. One major concern most employers had for working remotely was a loss of productivity. How productive and efficient can an employee be when they're not under constant supervision by co-workers and supervisors?

To better understand the effectiveness of remote work, Airtasker surveyed 1,004 full-time employees – 505 of whom were remote employees – throughout the U.S. about their work habits and productivity. The results indicate that remote workers are actually more productive than their office-based counterparts. The study found the following:

- Remote employees work an additional 1.4 more days per month than in-office employees, which is nearly 17 additional workdays a year.
- Remote employees take longer breaks on average than office employees (22 minutes versus 18 minutes, respectively), but they work an additional 10 minutes a day.

Well-planned onboarding paves a clear path for employees as they join a new company. Even in these unprecedented times, the shift to remote work does not have to rob new employees of the traditional experience. By implementing new and innovative practices that are ideal for remote working models, companies will become more attractive to prospective employees. Such novel practices will also help maintain business continuity.

Dr. S.Vijaya Kumari. "Exploring the Remote Collaboration Working In Hr Trends with Reference from Online Source." *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 26(04), 2021, pp. 51-54.

## **Exploring the Remote Collaboration Working In Hr Trends with Reference from Online Source**

**Dr. S.Vijaya Kumari**

*Asst Professor, Patrician College Of Arts and Science*

**Ms.J.Dharshana**

*Asst Professor, Patrician College Of Arts and Science*

---

Date of Submission: 14-04-2021

Date of Acceptance: 28-04-2021

---

### **I. INTRODUCTION:**

Organizations and enterprises that were already equipped with the tools for remote work and collaboration managed to continue their operations without any interruption.

The COVID-19 pandemic caught everybody unawares and upended how this world functioned. Nobody had anticipated that this outbreak would come down so heavily upon individuals, organizations, and governments globally. With all kinds of businesses severely hit, this has been the year enterprises worldwide have gone from talking about remote working plans to actually putting them into action. Millions of people—including many who had never previously worked from home—have been forced into working from their homes all of a sudden.

Organizations and enterprises that were already equipped with the tools for remote work and collaboration managed to continue their operations without any interruption. However, many businesses had to deal with the daunting task of adapting processes such as recruiting and onboarding new talent to the current circumstances. As there's no physical office to welcome new employees and connect them with their colleagues, the HR managers need to think of new strategies to bring the onboarding and training processes in line with the new normal.

In the past, remote employees have had a bad reputation. Many employers believed their workforce would be too easily distracted at home, where their managers couldn't keep an eye on their direct reports.

Remote work was very rare a decade ago. Working from home was usually only available as a special arrangement to accommodate families in specific cases. However, teleconferencing and telework technology have advanced to the point where some businesses thrive with completely remote teams. In fact, it's not uncommon for businesses to allow their employees to work from home once or twice a week.

Remote work can also help prevent the spread of illness, helping companies avoid lost productivity and protecting public health. For example, the outbreak of COVID-19 prompted many employers to shift to a remote work model for all employees possible in a bid to limit the spread of the coronavirus.

To determine the effectiveness of communication technology and working remotely, we'll examine the history of working remotely, the current state of the workforce, and predictions for the future of remote employment.

### **IS REMOTE WORKING EFFECTIVE?**

A decade ago, most employers would have balked at the idea of employees regularly working from home. One major concern most employers had for working remotely was a loss of productivity. How productive and efficient can an employee be when they're not under constant supervision by co-workers and supervisors?

To better understand the effectiveness of remote work, Airtasker surveyed 1,004 full-time employees – 505 of whom were remote employees – throughout the U.S. about their work habits and productivity. The results indicate that remote workers are actually more productive than their office-based counterparts. The study found the following:

- Remote employees work an additional 1.4 more days per month than in-office employees, which is nearly 17 additional workdays a year.
- Remote employees take longer breaks on average than office employees (22 minutes versus 18 minutes, respectively), but they work an additional 10 minutes a day.

Well-planned onboarding paves a clear path for employees as they join a new company. Even in these unprecedented times, the shift to remote work does not have to rob new employees of the traditional experience. By implementing new and innovative practices that are ideal for remote working models, companies will become more attractive to prospective employees. Such novel practices will also help maintain business continuity.

Dr. S.Vijaya Kumari. "Exploring the Remote Collaboration Working In Hr Trends with Reference from Online Source." *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 26(04), 2021, pp. 51-54.



## IMPACT OF TELEVISION ADVERTISEMENT ON YOUTH IN CHENNAI CITY

**Author 1:Mr. ARUNANS**

Assistant Professor Research Scholar (Part-Time) PG Department of Commerce, Patrician College of Arts and Science, Adyar, Chennai-20 Mail ID: smarunan1983@gmail.com

**Author 2: Dr. AROKIAMARY GEETHA DOSS**

Associate Professor Research Supervisor & Guide PG Department of Commerce, Patrician College of Arts and Science, Adyar, Chennai-20

### ABSTRACT:

The present study is both exploratory and diagnostic in nature to examine the Impact of Television Advertisement among the Youth in Chennai City. This research is conducted using survey method and structured questionnaire. Data is collected from 107 respondents all over Chennai to know the Impact of Television Advertisement. The collected data is analyzed using SPSS software and statistical tools such as, percentage analysis, descriptive analysis and exploratory factor analysis and mean based ranking. The factor analysis reveals that, the most dominant factors affecting youth buying decision are credibility factor, motivate to purchase factor and boring because of repeated ad factor. The Friedman rank test shows that effective T.V Ad Tool in the following order, Celebrities with a mean score of 3.86, Models (Mean Score 3.64), A Story line/Songs (Mean Score 3.61), A Simple concept (3.35) and Children in the Television advertisement least affect the consumer buying behavior with a (mean score of 3.31.)

**Key words:** *Advertising, Information, Models, Celebrities, Communication and Youth*

### INTRODUCTION:

In the beginning advertisement was conducted through word of mouth in the ancient and medieval world. Printing advertisement came in to existence in the 15<sup>th</sup> and 16<sup>th</sup> century and it was the first step towards modern advertising. There are many forms of traditional advertising such as newspaper, magazine, Radio, television, directories, outdoor and transit, direct mail, catalogues, leaflets. Television advertisement is one of the most important tool or technique to reach large number of customers even in the modern times. Television advertisement is also called as commercial, television commercial, TV advert or simply an ad. which convey a message in the form of simple concept, words, songs, story, play etc. Television is the best medium for advertisement at any point of time. Within short period of time TV advertisement reaches a much larger and it allows to tell and show a wide audience. "Advertising can be viewed as any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor."-Professor Philip Kotler. Now a day's all consumers get the content of advertisement with or without their consent through various advertising media either it is good or bad. Generally, a good advertisement must motivate to sell or buy the products or service which is good for health. Most of the time advertising agency or media fails to understand the concept of good health consumer is the consumer forever. They will repeatedly purchase the same brand and helps to popularize their brand knowingly or unknowingly. The target of any advertising is to reach the particular and all customers to whom goods or service can be sold away. Among the entire advertising media (Traditional or Modern), Television plays major role in influencing the people of all groups (Upper level, Middle level and lower level).

Television as a mass communication attracts people in all ages, some of us like to hear songs or watch serial or watching movies (old or new) or live programs or cartoons etc., so it is unavoidable to anyone to see the advertisement in television about a product or service. Even though channels changed when advertisement plays, in a fraction of second, the following aspects like a simple concept,



## IMPACT OF TELEVISION ADVERTISEMENT ON YOUTH IN CHENNAI CITY

**Author 1: Mr. ARUNANS**

Assistant Professor Research Scholar (Part-Time) PG Department of Commerce, Patrician College of Arts and Science, Adyar, Chennai-20 Mail ID: smarunan1983@gmail.com

**Author 2: Dr. AROKIAMARY GEETHA DOSS**

Associate Professor Research Supervisor & Guide PG Department of Commerce, Patrician College of Arts and Science, Adyar, Chennai-20

### ABSTRACT:

The present study is both exploratory and diagnostic in nature to examine the Impact of Television Advertisement among the Youth in Chennai City. This research is conducted using survey method and structured questionnaire. Data is collected from 107 respondents all over Chennai to know the Impact of Television Advertisement. The collected data is analyzed using SPSS software and statistical tools such as, percentage analysis, descriptive analysis and exploratory factor analysis and mean based ranking. The factor analysis reveals that, the most dominant factors affecting youth buying decision are credibility factor, motivate to purchase factor and boring because of repeated ad factor. The Friedman rank test shows that effective T.V Ad Tool in the following order, Celebrities with a mean score of 3.86, Models (Mean Score 3.64), A Story line/Songs (Mean Score 3.61), A Simple concept (3.35) and Children in the Television advertisement least affect the consumer buying behavior with a (mean score of 3.31.)

**Key words:** *Advertising, Information, Models, Celebrities, Communication and Youth*

### INTRODUCTION:

In the beginning advertisement was conducted through word of mouth in the ancient and medieval world. Printing advertisement came in to existence in the 15<sup>th</sup> and 16<sup>th</sup> century and it was the first step towards modern advertising. There are many forms of traditional advertising such as newspaper, magazine, Radio, television, directories, outdoor and transit, direct mail, catalogues, leaflets. Television advertisement is one of the most important tool or technique to reach large number of customers even in the modern times. Television advertisement is also called as commercial, television commercial, TV advert or simply an ad. which convey a message in the form of simple concept, words, songs, story, play etc. Television is the best medium for advertisement at any point of time. Within short period of time TV advertisement reaches a much larger and it allows to tell and show a wide audience. "Advertising can be viewed as any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor."-Professor Philip Kotler. Now a day's all consumers get the content of advertisement with or without their consent through various advertising media either it is good or bad. Generally, a good advertisement must motivate to sell or buy the products or service which is good for health. Most of the time advertising agency or media fails to understand the concept of good health consumer is the consumer forever. They will repeatedly purchase the same brand and helps to popularize their brand knowingly or unknowingly. The target of any advertising is to reach the particular and all customers to whom goods or service can be sold away. Among the entire advertising media (Traditional or Modern), Television plays major role in influencing the people of all groups (Upper level, Middle level and lower level).

Television as a mass communication attracts people in all ages, some of us like to hear songs or watch serial or watching movies (old or new) or live programs or cartoons etc., so it is unavoidable to anyone to see the advertisement in television about a product or service. Even though channels changed when advertisement plays, in a fraction of second, the following aspects like a simple concept,

Vol.14 No1 (VII)

ISSN : 0975-1386

# Wesleyan Journal of Research

An International Research Journal

SCIENCE SECTION



Bankura Christian College  
Bankura-722 101  
WEST BENGAL, INDIA

**Vol.14 No 4 (VII) 2021**

Published by  
Principal  
Bankura Christian College,  
Bankura - 722101  
West Bengal, India,  
Website : [www.bankurachristiancollege.in](http://www.bankurachristiancollege.in)

©  
Bankura Christian College

Printed at :  
A. T. Press,  
Bankura, India

(The articles reflect the opinion/views of the authors. The editorial board is in no way responsible for the same)

# A STUDY ON SOCIO-ECONOMIC EMPOWERMENT OF UNORGANISED WOMEN ENTREPRENEURS

Rev. Dr. Bro. S. Arockiaraj

Assistant Professor of Commerce, Patrician College of Arts and Science, Adyar, Chennai, Tamil Nadu – 600020.

## Abstract

The present study is entitled as "A Study on Socio-Economic Empowerment of Unorganized Women Entrepreneurs". This paper focuses on the Women entrepreneur those who are working in unorganized sectors in Tiruchirappalli district. Women entrepreneur play a vital role in socio-economic welfare of the country. They are the innovators, researchers and risk-takers of the enterprise. The prosperity of a country depends on the harmonious progress of women entrepreneurs. Women have meaningful roles in the economic life of the nation. The empowerment of women is directly connected to the family, society and in turn to the development of the country. The outcomes of the present research help the Women entrepreneur for the socio-economic empowerment in all the spheres of their life. The research was a descriptive method with a survey technique, which consists of simple random sampling of 100 women entrepreneurs in Tiruchirappalli district. The investigator has adopted the Socio-Economic Empowerment Scale from Dr. Jerome. Personal data sheet was prepared by the investigator. The interpretation of data was done with statistical methods in percentage analysis, mean, standard deviation and 't'-test.

**Key Terms:** Socio-Economic Empowerment and Women Entrepreneur

## INTRODUCTION

In India the idea of women entrepreneurship is of recent origin. Women entrepreneur plays vital role in socio-economic wellbeing of the society. Women entrepreneur form the economy by creating new prosperity and new jobs and inventing new products and services to create something new for the advantage of the society. In the recent era, the empowerment of women has emerged as a significant issue in our country. It is a process of awareness and capacity building leading to greater participation and decision-making power. Empowerment of women through entrepreneurship would alter the social evils and pave way to obtain equality of status in democratic, economic, social and cultural domains of life as against all odds at all stages of their life cycle. Majority of the investigators conceded out most of the earlier studies on the development of entrepreneurship. Such earlier studies gave less emphasis on the empowerment of unorganized women entrepreneurs in their studies.

## REVIEW OF RELATED STUDIES

Rajesham and Raghava (2008) made a study on the promotion entrepreneurship for women will require even greater reversal of traditional attitudes than the mere creation of jobs for women. This means that we should first wait for society. But it implies that the programme should go beyond subsidies and credit allocation to attitudinal change, group formation, training and other support services but also practical application of the academic knowledge regarding management like marketing and finance of a business enterprise.

Nirmala (2003) conducted a study on Constraints on Women Entrepreneurship Development in Kerala: An analysis of familial, social, and psychological dimensions. The findings of the study revealed that they have taken up this career in the absence of any other means of contribution to monthly family income. Most of them started business only after all their attempts to secure a regular, secure, salaried job failed. Absence of any worthwhile planning and lack of any entrepreneurship training before launching a business was the bane of the vast majority of entrepreneurs in the sample.

Vol.14 No1 (VII)

ISSN : 0975-1386

# Wesleyan Journal of Research

An International Research Journal

SCIENCE SECTION



Bankura Christian College  
Bankura-722 101  
WEST BENGAL, INDIA

**Vol.14 No 4 (VII) 2021**

Published by  
Principal  
Bankura Christian College,  
Bankura - 722101  
West Bengal, India,  
Website : [www.bankurachristiancollege.in](http://www.bankurachristiancollege.in)

©  
Bankura Christian College

Printed at :  
A. T. Press,  
Bankura, India

(The articles reflect the opinion/views of the authors. The editorial board is in no way responsible for the same)



# PROBLEMS FACED BY THE ONLINE CUSTOMERS REGARDING CASHLESS TRANSACTIONS

Rev. Dr. Bro. S. Arockiaraj

Assistant Professor of Commerce, Patrician College of Arts and Science, Adyar, Chennai, Tamil Nadu – 600020.

## ABSTRACT

The aim of this paper is to find the problems faced by the online customers towards cashless transactions in Chennai City. Every new era, when exposes and springs to the public, it faces to so many problems. It takes time that people getting acquainted with it. The different point is that since the generation like cashless transactions is new, there should be so many issue invented and organized as a base for increasing of cashless transactions. The different critical hassle is not having correct infrastructure to extend and expand the cashless transactions sequentially. In India there is also a tendency of not using internet regularly often people use internet occasionally, so they do not have permanent internet connection. If people have Internet connection and mobile also but that a major problem cause due to availability of internet speed and connectivity many times connection reset and many places where no connectivity. The objective of this study is to understand customer satisfaction with cashless transaction systems in Chennai City and also to understand problems faced by the online customers towards cashless transactions. The current study has used survey method for collecting primary data of 250 respondents using simple random sampling technique for the experiential analysis of problems faced by the online customers towards cashless transactions.

**Key Terms:** Customer Satisfaction and Cashless Transaction

## INTRODUCTION

Most humans nevertheless love to do their companies in traditional form as earlier than. These people like to touch the documents and money in hand and doing the procedure bodily and manually. They consider in each dealing and business, physically as opposed to without a doubt. There are many humans even in the 21<sup>st</sup> century, who are not agree and take delivery of the all new technologies. They are always now not certain and assured to the technologies. They do the entirety like vintage human beings. The task may be very tough to pursue and to make these humans eager to do in this manner and accept the technology. One motive is due to such a lot of malfunctions, fraud and unavailability of gadgets within the time of want. Every defection makes the general public opinion divert from the benefits of new technology (Khan, 2014).

## SIGNIFICANCE OF THE STUDY

Security is the main situation of any new era. Since the existing century is the century of statistics and records, every era that is running with, they are in publicity of statistics theft, stealing and fraud. It is more risky while the facts is set the money and the financial data. For such a lot of agencies and even people, the secrecy of information about the monetary and their money owed and so many things like this is particularly important. If they lose a small amount of information, they will lose their all matters. The boom of the Internet as a medium of transactions has made viable a monetary transformation in which commerce is turning into electronic. The vital element of fulfilment for every commercial entity to put in force and perform an e-business mechanism wherein cash drift, fabric go with the flow and data glide in business. This study focus on to find out the problems faced by the online customers towards cashless transactions in Chennai City.

## REVIEW OF RELATED STUDIES

Hsiao-Cheng Yu, Kuo-Hua Hsi, Pei-Jen and Kuo (2002) the worldwide proliferation of the Internet led to the birth of electronic commerce, a business environment that allows the electronic transfer of transactional information. Electronic commerce flourished because of the openness, speed, anonymity, digitization and global accessibility characteristics of



Kalavakkam - 605 110  
(An Autonomous Institution, Affiliated to Anna University, Chennai)



## Certificate

This is to certify that Dr. /Mr./ Ms. G. JACULINE PRIYA of  
VISTAS  
has presented the paper titled FRAUD DETECTION AND PREVENTION  
USING MACHINE LEARNING ALGORITHMS-A REVIEW  
in the 7<sup>th</sup> International Conference on Electrical Energy Systems (ICEES - 2021)  
organized by the Department of Electrical & Electronics Engineering, Sri  
Sivasubramaniya Nadar College of Engineering, Chennai during 11-13 February, 2021.

  
Dr. N. B. Muthu Selvan  
Convener

  
Dr. V. Kamaraj  
Conference Chair

  
Dr. V. E. Annamalai  
Principal

# EVALUATION OF THE CYBER SECURITY & PRIVACY ISSUES INTRODUCED IN DATA SCIENCE APPLICATIONS

**Dr.M.CharlesArockiaraj<sup>1</sup> , Dr. B.Subbulakshmi<sup>2</sup>**

*<sup>1</sup>Asst.Professor, Dept.of Computer Applications*

*<sup>2</sup>AssociateProfessor, Dept.of Computer Applications*

*<sup>1 & 2</sup>Patrician college of Arts and Science, Adyar, Chennai, India*

*mcharles2008@gmail.com*

## **Abstract**

*Large organizations have plenty of knowledge moving throughout their network. The info will originate from internal computers, IT systems, and security tools. However, these endpoints don't communicate with every other. The security technology liable for detective work attacks cannot continuously see the overall image of threats. Before the adoption of knowledge science, most massive organizations used the Fear, Uncertainty, and Doubt (FUD) approach in cyber security. The data security strategy was supported FUD-based assumptions. Assumptions concerning wherever and the way attackers might attack. With the help of knowledge science, security groups will translate technical risk into business risk with knowledge-driven tools and methods. Ultimately, data science enabled the cyber-security business to maneuver from assumption to facts. Knowledge science brings a logical structure to unstructured data. Knowledge scientists use machine or deep learning algorithms to compare traditional and abnormal patterns. In cyber security, knowledge science helps security groups distinguish between potentially malicious network traffic and safe traffic. Applications of data science in cyber security are comparatively new. Several firms are still using ancient measures like legacy, ant viruses, and firewalls. This article reviews the connection between knowledge science and cyber security and also the most common use cases.*

**Keywords:** *cyber security, FUD, grabbing knowledge, Security policy*

## **I Introduction**

In a computing context, cyber security is undergoing huge shifts in technology and its operations in recent days, and information science is driving the modification. Extracting security incident patterns or insights from cyber security information and building corresponding data-driven model, is that the key to form a security system automatic and intelligent. To know and analyze the particular phenomena with information, varied scientific strategies, machine learning techniques, processes, and systems area unit used, that is often called information science. During this paper, we have a tendency to focus and shortly discuss on cyber security information

science, wherever the info is being gathered from relevant cyber security sources, and therefore the analytics complement the newest data-driven patterns for providing simpler security solutions. The idea of cyber security information science permits creating the computing method additional unjust and intelligent as compared to ancient ones within the domain of cyber security. We have a tendency to then discuss and summarize variety of associated analysis problems and future directions.

## II Understanding cyber security information

Data science is remodeling the world's industries. It's critically necessary for the longer term of intelligent cyber security systems and services attributable to "security is all regarding data". After we look for to discover cyber threats, we tend to be analyzing the safety information within the style of files, logs, network packets, or different relevant sources. Traditionally, security professionals didn't use information science techniques to create detections supported these data sources. Instead, they used file hashes, custom-written rules like signatures, or manually outlined heuristics.



Though these techniques have their own merits in many cases, it desires an excessive amount of manual work to stay up with the changing cyber threat landscape. On the contrary, information science will create a massive shift in technology and its operations, wherever machine learning algorithms is wont to learn or extract insight of security incident patterns from the coaching information for his or her detection and prevention. For instance, to discover malware or suspicious trends, or to extract policy rules, these techniques are used.

In recent days, the whole security business is moving towards data science, attributable to its capability to remodel data into call making. to try to this, many data-driven tasks is associated, such as

- (i) data engineering focusing sensible applications of knowledge gathering and analysis;
- (ii) reducing information volume that deals with filtering important and relevant information to any analysis;



## A subclass with bi-univalence involving Horadam Polynomials and its coefficient bounds

K. Muthunagai<sup>1</sup> [orcid.org/0000-0002-3020-7649](https://orcid.org/0000-0002-3020-7649)

G. Saravanan<sup>2</sup> [orcid.org/0000-0002-5706-4174](https://orcid.org/0000-0002-5706-4174)

S. Baskaran<sup>3</sup> [orcid.org/0000-0001-8980-9671](https://orcid.org/0000-0001-8980-9671)

<sup>1</sup>Vellore Institute of Technology, School of Advanced Sciences, Chennai, TN, India.

[muthunagai@vit.ac.in](mailto:muthunagai@vit.ac.in)

<sup>2</sup>Patrician College of Arts and Science, Dept. of Mathematics, Chennai, TN, India.

[gsaran825@yahoo.com](mailto:gsaran825@yahoo.com)

<sup>3</sup>Agurchand Manmull Jain College, Dept. of Mathematics, Chennai, TN, India.

[sbas9991@gmail.com](mailto:sbas9991@gmail.com)

Received: 02 April 2020 | Accepted: 19 December 2020

### Abstract:

*In this research contribution, we have constructed a subclass of analytic bi-univalent functions using Horadam polynomials. Bounds for certain coefficients and Fekete-Szegő inequalities have been estimated.*

**Keywords:** Analytic functions; Bi-univalent functions; Horadam polynomials.

**MSC (2020):** 30C45, 30C15.

Cite this article as (IEEE citation style):

K. Muthunagai, G. Saravanan, and S. Baskaran, "A subclass with bi-univalence involving Horadam Polynomials and its coefficient bounds", *Proyecciones (Antofagasta, On line)*, vol. 40, no. 3, pp. 721-730, 2021, doi: 10.22199/issn.0717-6279-4073



Article copyright: © 2021 Krishnan Muthunagai, G. Saravanan, and S. Baskaran. This is an open access article distributed under the terms of the Creative Commons License, which permits unrestricted use and distribution provided the original author and source are credited.



- [3] D. Brannan and J. Clunie, *Aspects of contemporary complex analysis*. London: Academic Press, 1980.
- [4] T. Horzum and E. Gökçen Koçer, "On some properties of Horadam polynomials", *International mathematical forum*, vol. 4, no. 25, pp. 1243-1252, 2009. [On line]. Available: <https://bit.ly/2Sw3MGf>
- [5] A. F. Horadam and J. M. Mahon, "Pell and Pell-Lucas polynomials", *The Fibonacci quarterly*, vol. 23, no. 1, pp. 7-20, 1985. [On line]. Available: <https://bit.ly/2R137MV>
- [6] A. Horadam, "Jacobsthal representation polynomials", *The Fibonacci quarterly*, vol. 35, no. 2, pp. 137-148, 1997. [On line]. Available: <https://bit.ly/3ez7OWY>
- [7] T. Koshy, *Fibonacci and Lucas numbers with applications*. New York, NY: Wiley, 2001, doi: 10.1002/9781118033067
- [8] M. Lewin, "On a coefficient problem for bi-univalent functions", *Proceedings of the American Mathematical Society*, vol. 18, no. 1, pp. 63-63, 1967, doi: 10.1090/s0002-9939-1967-0206255-1
- [9] A. Lupas, "A Guide of Fibonacci and Lucas polynomials", *Octagon Mathematical Magazine*, vol. 7, no. 1, pp. 2-12, 1999.
- [10] G. Saravanan and K. Muthunagai, "Estimation of upper bounds for initial coefficients and Fekete-Szegő inequality for a subclass of analytic bi-univalent functions", in *Applied mathematics and scientific computing*, B. Rushi Kumar, R. Sivaraj, B. S. R. V. Prasad, M. Nalliah, and A. Subramanyam Reddy, Eds. Basel: Birkhäuser, 2019, pp. 57-65, doi: 10.1007/978-3-030-01123-9\_7
- [11] G. Szegő, *Orthogonal polynomials*, 4th ed. Providence, RI: AMS, 1975.
- [12] R. Vijaya, T. Sudharsan and S. Sivasubramanian, "Coefficient estimates for certain subclasses of biunivalent functions defined by convolution", *International journal of analysis*, vol. 2016, Art. ID. 6958098, 2016, doi: 10.1155/2016/6958098
- [13] Q. Xu, Y. Gui, and H. Srivastava, "Coefficient estimates for a certain subclass of analytic and bi-univalent functions", *Applied mathematics letters*, vol. 25, no. 6, pp. 990-994, 2012, doi: 10.1016/j.aml.2011.11.013
- [14] S. Yalçın, K. Muthunagai and G. Saravanan, "A subclass with bi-univalence involving  $(p,q)$ - Lucas polynomials and its coefficient bounds", *Boletín de la Sociedad Matemática Mexicana*, vol. 26, pp. 1015-1022, doi: 10.1007/s40590-020-00294-z

## I-CORDIAL LABELING OF SPIDER GRAPHS

S. SRIRAM<sup>1</sup>, K. THIRUSANGU<sup>2</sup>, §

**ABSTRACT.** Let  $G = (V, E)$  be a graph with  $p$  vertices and  $q$  edges. A graph  $G = (V, E)$  with  $p$  vertices and  $q$  edges is said to be an I-cordial labeling of a graph if there exists an injective map  $f$  from  $V$  to  $\lfloor \frac{-p}{2} \rfloor \dots \lfloor \frac{p}{2} \rfloor^*$  or  $[-\lfloor \frac{p}{2} \rfloor \dots \lfloor \frac{p}{2} \rfloor]$  as  $p$  is even or odd respectively such that the injective mapping is defined for  $f(u) + f(v) \neq 0$  that induces an edge labeling  $f^* : E \rightarrow \{0, 1\}$  where  $f^*(uv) = 1$  if  $f(u) + f(v) > 0$  and  $f^*(uv) = 0$  otherwise, such that the number of edges labeled with 1 and the number of edges labeled with 0 differ at most by 1. If a graph satisfies the condition then graph is called I-Cordial labeling graph or I - Cordial graph. In this paper we intend to prove the spider graph  $SP(1^m, 2^t)$  is integer I-cordial labeling graph and obtain some characteristics of I cordial labeling on the graph and we define M-Joins of Spider graph  $SP(1^m, 2^t)$  and study their characteristics. Here we use the notation  $\lfloor -p..p \rfloor^* = \lfloor -p..p \rfloor - [0]$  and  $\lfloor -p..p \rfloor = [x/x \text{ is an integer such that } |x| \leq p]$

Keywords: Cordial Labeling of graphs, I-Cordial labeling of graphs, Spider graphs  
AMS Subject Classification: 05C78

### 1. INTRODUCTION

A graph  $G$  is a finite nonempty set of objects called vertices and edges. All graphs considered here are finite, simple and undirected. Gallian J A [1] has given a dynamic survey of graph labelling. The origin of graph labelings can be attributed to Rosa. The vertex set is denoted by  $V(G)$  and the edge set is denoted by  $E(G)$ . The concept of integer I - Cordial labeling was introduced by Nicholas T and Maya P [2] and they have proved some standard graphs are I-cordial labeling. Jeyanthi.P and Saratha Devi. T [3] studied on edge pair sum labeling. Sriram.S and Govindarajan .R [4] [5] [6] discussed on homocordial labeling of spider graphs and Pell labeling of Joins of square of path graph. Motivated towards the study of integer I-cordial labeling of graphs we study on the spider graphs  $SP(1^m, 2^t)$  and prove that they are I-Cordial graph and also study joins of  $SP(1^m, 2^t)$ . We also identify some characteristics based on construction of  $SP(1^m, 2^t)$  and joins of  $SP(1^m, 2^t)$ . We also study on M-joins of  $SP(1^m, 2^t)$  graph. The basic preliminary concept of graphs is from Handbook of graph theory [7]

### 2. PRELIMINARIES

**Definition 2.1.** A tree is called a spider if it has a centre vertex  $C$  of degree  $R > 1$  and all the other vertex is either a leaf or with degree 2. Thus a spider is an amalgamation of

<sup>1</sup> Department of Mathematics, Patrician College Of Arts and Science, Adyar Chennai, India.  
e-mail: sanksriram@gmail.com; ORCID: <https://orcid.org/0000-0002-0219-9004>.

<sup>2</sup> Department of Mathematics, S.I.V.E.T College, Gowrivakkam, Chennai.  
e-mail: kthirusangu@gmail.com; ORCID: <https://orcid.org/0000-0003-1744-281X>.

§ Manuscript received: October 12, 2019; accepted: April 02, 2020.

TWMS Journal of Applied and Engineering Mathematics, Vol.11, Special Issue, © Işık University, Department of Mathematics, 2021; all rights reserved.



**S. Sriram** is working as an assistant professor in mathematics, Patrician College of Arts and Science, Adyar, India and his research interests focus mainly on graph theory.



**K.Thirusangu** is an associate professor and dean (R and D), S.I.V.E.T College, Gowrivakkam, Chennai.

---

---

ISSN 0976-2132

# **UTKAL HISTORICAL RESEARCH JOURNAL**

**VOLUME: XXXV**

**2021**



**DEPARTMENT OF HISTORY  
UTKAL UNIVERSITY, VANI VIHAR  
BHUBANESWAR-751004, (ODISHA) INDIA**

# EFFECT OF GREEN HRM PRACTICES ON EMPLOYEES WORKPLACE

Prof. KALAIARASAN C, Research Scholar, IDE, University of Madras  
Dr. THENMOZHI S, Assistant Professor, Patrician College of Arts & Science

## ABSTRACT

Green HRM is defined as an environment friendly HR practice that contributes to the sustainable usage of resources in the industrial sectors all over the sphere. The perception has primarily attracted conceptualization attention, rather than any extensive empirical attention. However, it has begun to gain traction and increased academic interest within the management field, because of its potential contribution to improving corporate environmental performance, and its implicit influence over employee workplace behaviors. The objective of the study is to determine the level of satisfaction with reference to gender and to analysis relationship between overall Satisfaction level with E-Payroll System and E-Attendance. Convenient sampling and snow bowling technique were used as sampling technique. Since the research study focuses on satisfaction of the employees on green HRM practices of both men and women. The findings of the study appear to suggest organizations across the globe are absorbing Green HRM as a proactive step towards protecting the environment. So in this paper, researcher have made an attempt to encourage the importance of Green HRM in polluting industries and to study the latest environmental friendly solutions to keep on Green in the Human Resource Function.

**KEY WORDS:** Green HRM, employee satisfaction

## INTRODUCTION

In recent years, the environmental matter has developed as one of the serious societal priorities and as an innovative development strategy of societies. Thus, this subject has been attracting many management scholars because of the strategic significance of emerging a sustainable organization. The "green" human resource management (GHRM), known as "environmental" human resource management, is deliberated as an essential tool for the effective implication of the organization's sustainable development strategy. In fact, the quest for reaching a GHRM can be found at the global level since it brings not only benefits for organizations, such as environmental performance and sustainable performance, but it also motivates individuals to commit in green activities and produce green ideas. Therefore, when a person compels to the environmental goals, she or he has an appropriate change in attitudes and behavior to pursue the green value of the organization. Moreover, their belief towards the in-built benefit of environmental commitment is combined and, subsequently, they are willing to exert extra effort to attain the success of organization's green goals.

## LITERATURE REVIEW

According to SuhaimiSudin (2011), green management initiatives has become an important factor as far as the business is concerned. Also researchers agree that employees must be inspired, empowered and environmentally aware of greening to carry out green management initiatives. The paper also focuses on the development of a new model of strategic Green HRM which includes relationship between assessment based HR interventions, environmental management system, Green intellectual capital and corporate environmental citizenship.

Robert Stoesser (2000) stated that the websites of some key corporations have the capability to accept electronic resumes, for the bulk of small and mid-sized businesses, including many banks. Some banks are considering offering "E-Recruitment" service for their marketable customers.

ISSN : 0378 4568

# **anveṣak**

A bi-annual journal

VOL. 51, NO.1 (VII) January - June 2021



**Sardar Patel Institute of Economic and Social Research**  
Thaltej Road, Ahmedabad - 380 054. India

16	IMPACT OF INSTITUTIONAL RELATIONSHIP ON EMPLOYEES' MORALE <b>Dr.R.Fahima Sultana</b>	85
17	A STUDY ON THE CUSTOMER'S AWARENESS TOWARDS INSURANCE WITH REFERENCE TO T.NAGAR <b>Dr.M.Selina Muthu Rani</b> <b>Ms.G.Anitha</b>	90
18	IMPACT OF COVID 19 ON UNEMPLOYMENT AMONG THE EDUCATED YOUTH <b>Dr.V.CHITRA</b> <b>Ms.K. MERUDHULESWARI</b>	99
19	ELECTRONIC HUMAN RESOURCE MANAGEMENT SYSTEM: SATISFACTION OF EMPLOYEES IN INFORMATION AND TECHNOLOGY SECTOR <b>Mr.Kalaiarasan.C</b> <b>Dr. R. Panchalan</b>	104
20	FINACIAL INCLUSION THROUGH BUSINEES CORESPONDENTS <b>Mr.Shaneeb P</b>	109
21	PERFORMANCE OF LIFE INSURANCE CORPORATION OF INDIA:ORIGIN, GROWTH, AND DEVELOPMENT <b>Ms.Meera A</b> <b>Dr.T.R.Gurumoorthy</b>	113
22	MEASURING CONSUMER PSYCHOLOGICAL SATISFACTION WITH RESPECT TO DOCTOR'S TELE-CONSULTATION SERVICES <b>Ms G Vaishnavi</b> <b>Ms Shobana Padmanabhan</b>	114
23	IMPACT OF INDIAN NATIONAL EDUCATION POLICY 2020 ON STUDENTS AND TEACHERS <b>Dr.V.Anuraadha</b> <b>Dr.D.Sumathi</b>	118
24	"AN ANALYTICAL STUDY OF PERFORMANCE AND SERVICES OFFERED BY LIC OF INDIA WITH SPECIAL REFERENCE TO NASHIK CITY" <b>Ms. Sonali Ramesh Limaye</b>	123
25	INVESTORS BEHAVIOUR OF STOCK MARKET INVESTMENT <b>Dr. R.RAMKI</b> <b>Dr. R. SAROJA DEVI</b>	130
26	ROLE OF SENSORY MARKETING IN DESIGNING STORE ATMOSPHERICS; EFFECTS ON PURCHASE INTENTION <b>Liza Emmanuel</b> <b>Dr .Jayanta Banerjee</b>	137
27	A STUDY ON WORK STYLE PREFERENCES AND CHALLENGES FACED BY IT EMPLOYEES BEFORE AND DURING THE COVID-19 PANDEMIC (WITH SPECIAL REFERENCE TO CHENNAI CITY) <b>M. Mahendran</b> <b>Dr. L. Cesis Dastan</b>	141
28	CONSUMER PREFERENCE TOWARDS KIRANA STORES FOR PURCHASE OF ESSENTIAL ITEMS POST COVID – 19 <b>Ms. T.D. REKHA</b> <b>Dr. ANITA RAMAN</b>	147
29	A STUDY ON USAGE OF DIGITAL BANKING SERVICES - DURING COVID-19 <b>Dr.Sambamurthy Padmavathi</b> <b>Ms.Sakthi S</b>	153
30	FINANCIAL PERFORMANCE OF SELECTED AUTOMOBILE COMPANIES IN INDIA: A STATUS CHECK <b>VISHAL KRISHNAN M, Dr. HARIDAYAL SHARMA</b>	160

**ELECTRONIC HUMAN RESOURCE MANAGEMENT SYSTEM: SATISFACTION OF  
EMPLOYEES IN INFORMATION AND TECHNOLOGY SECTOR**

**Mr. Kalaiahasan.C**, Research Scholar, IDE, University of Madras  
**Dr. R. Panchalan**, Professor, Department of Commerce, IDE, University of Madras

**Abstract**

Technological improvement and electronic tools dominance on phenomena world, and different sciences such as management, contributes to this fact that today employees have a greater awareness than employees in past in this area. New technologies have created a new generation of employees and the organizational structure has changed. The changes are organized in a way that today the absence of organization on the www, means the loss of huge capital resources. These days associations or officially more extensive organizations face numerous difficulties like globalization, the worth chain for seriousness and mechanical changes. To emerge the online innovation, the new idea of E-HRM, entered the field of HR. This type of management is suitable for human resource professionals to create that causes encouragement in their competencies and is playing an effective role. Every respected movement, including account, business and individual exercises as well as saving resources, through an electronic framework is accomplished, among the exercises that associations can do through the sites, are considered as staff matters.

**Key words:** HR, e-HRM, Employees, satisfaction level

**INTRODUCTION**

Electronic human resource management (E-HRM) signifies a comparatively innovative transformation in the field of HRM. In a moving competitive atmosphere, human resources are significant basis of competitively sustainable benefit. The E-HRM technology comforts the human resource role which suits the human resource (HR) essentials of the business over web technology based networks. Electronic human resource management stocks data concerning, recruitment, training, employee personal data, payroll, performance management, and deliberate location. The HRM of a corporation is liable for recruitment, selection, training, performance evaluation, promotion practices, grievances handling, job satisfaction, motivation and organizational commitment functions. Managing of Human resource is definitely not a basic errand since it manages the populace. HRM is included to improve associations' exhibition, sort out workers' fulfillment, to make a positive brand picture inside the business. Innovation in HR has become a need; step by step the usage of innovation and its headway in HRM makes it indivisible. The headway of information innovation has changed the way we live, convey and work. E-HR is the essential use of electronic advancements to HR-related frameworks that alongside other hierarchical changes will prompt all the more comprehensively based admittance to HR data and more extensive freedoms for dealing with the data.

**Functions of E-HRM**

Electronic phase is alive in all extents of HRM where there is transmission of information starting with one employee then onto the subsequent employee and from one customer to other together inside and in the managed from are strongly essentials in a large portion of the capacities and activities of HRM. E-HRM is a technological lodging to the commercial world. The authorization of supervisors and employees to achieve self-confident selected HR capacities discharges the HR department from every one of these errands, permitting the most HR staff to zero in fewer on the functioning and additional on the tactical essentials of HR in relation and permitting the associations to lesser the HR department operating stages. The key features of E-HRM system which adopt a enormous part in decreasing the categorized expenses and of course towards globalization worldview With the implementation of HRMIS, human resource activities can be undertaken without breaking a

Since  $p\text{-value} = 0.45$  is less than  $\alpha = 0.05$  we shall reject the null hypothesis. There exists enough evidence to conclude that age is useful as a predictor of E-Learning.

### Conclusion

Human Resource management has undergone dramatic changes in the last fifty years, while technological advancement has allowed the transformation of many business activities, including the IT industry. The use of E-HRM is one of the most critical factors for the success and longevity of any form of company in today's global market, and an organization that can use it best, in contrast to other rivals, would be in a better position. Since E-HRM is self-service, it encourages employee loyalty and satisfaction. E-HRM serves as a centralized forum for resolving complaints. E-HRM is helping both workers and the banking industry. E-HRM has a positive effect on the HR role of private sector banks by dramatically reducing form-filling and agreeing swift access to large numbers. The employee can also possess path of his achievements without ensuring to go over time-consuming lawful actions.

### Reference

1. Alwis, A. C. (2010). The Impact of Electronic Human Resource Management on the Role of Human Resource Managers. *Economics and Management*, 13(4), PP.47- 60.
2. Bondarouk, T. V., & Ruël, H. J. M. (2009). Electronic Human Resource Management: challenges in the digital era. *The International Journal of Human Resource Management*, Vol.20(3), PP.505-514.
3. Francis, H. and D'Annunzio-Green, N. (2005). HRM and the pursuit of a service culture: Managerial encounters with competing discourses. *Employee Relations*, Vol.27(1), 71-85.
4. Laumer, S., Eckhardt, A. & Weitzel, T. (2010), 'Electronic human resource management in an e-business environment', *Journal of Electronic Commerce Research*, Vol.11(4), PP.240-250.
5. Panayotopoulou, L., Vakola, M. & Galanaki, E. (2007). E-HR adoption and the role of HRM: evidence from Greece. *Personnel Review*. Vol.36 (2), 277-294
6. Swaroop, K. R. (2012) "E-HRM and how IT well Reduce the cost in organization", *Journal of Marketing & Management Review*, Vol.1 (4) .PP:133-139.
7. Kothari, C.R. (2004) *Research Methodology: Methods and Techniques*. 2nd Edition, New Age International Publishers, New Delhi.

# Twitter Sentimental and Emotional Variations of Public Reactons about the Public Personalities in Social Media Using Deep Learning

**Dr. M. CHARLES AROCKIARAJ**

Asst.Professor,

Department of Computer Science,

Patrician College of Arts and Science, Chennai. India

Email - mcharles2008@gmail.com

**Abstract:** It is difficult to predict the personality of people with high accuracy but it is possible nowadays by using the information which are shared by them in the social media. In order to find the personality with high accuracy, we examine Twitter account of six categories of the Public. Based on position in the society, we categorized the people into six major categories such as Political Personalities, Sports Stars, Business Bodies, Hollywood Figures, General Public and Indian Geneticist. Their twitter profile data are collected, stored (using MySQL), Pre-processed and Analysed analysis is done in accordance with the features of profile images such as colour, image composition, their Post and their online engagement. For explicable, our analysis targeted aesthetic and physiognomy to explore personality characteristics. Based on the profile picture chosen our results predict the behaviour of the twitter users. For example, studious and agreeable users having positive emotions while others use aesthetic photos. After analysing these data, the accuracy rate was predicted by using various algorithms such as Support Vector Machines (SVM), Naïve Bayes and Maximum Entropy etc. These algorithms gave the accuracy rate of about 60-70%. For accuracy prediction we used D-CNN technique, which achieved 98.457% of accuracy measurement and also concluded that personality prediction is difficult for robust accuracy.

**Key Words:** Support Vector Machines, Political Personalities, Hastag.

## 1. INTRODUCTION:

Nowadays, Social media plays avital role in connecting the people across world. It facilitates the creation and sharing of information and ideas among various people via virtual communities and networks. For predicting the sentiment of wide variety of people comment, review and opinion plays a major role. The retrieval of data from social media sources like Facebook, Twitter, Instagram, Blogs etc. are essential for find out the overall sentiment of population. For our research, we focused our attention towards Twitter which gives large amount of data which are not manually handled so self-activating constituents are required to handle this data. The reason behind why we are selecting the Twitter is that, it connects millions of people with their family, friends and colleagues through internet. The Twitter allows the user to post short messages which are up to 140 characters and these messages can read by other Tweet users. Everyday Tweet users share variety of posts and share their feelings by using emoticons. By this way Twitter grows day by day so it becomes popularity among people and that's why we chose Twitter as our opinion.

In this paper, we chose three Twitter account of public personalities among six categories they are Political Personalities (Kakkan), Sport Stars (Rani Rampal), Business Bodies, Hollywood Figures (Robert Pattinson), General Public and Indian Geneticist.



Figure 1: Twitter profiles of Public Personalities  
(Robert Pattinson, Kakkan and Rani Rampal)

25. F. C. E. Bruni and B. Lepri, "Automatic personality and interaction style recognition from Facebook profile pictures," 22nd ACM International Conference on Multimedia, MM, pp. 1101-1104, 2014.
26. A. M. Noura, Vazquez-Alvarez, Y. McKay and A. A. Vinciarelli, "Face-based automatic personality perception," 22nd ACM international conference on Multimedia, MM, p. 1153-1156, 2014.
27. N. J. Hum, P. E. Chamberlin, B. L. Hambright, A. C. Portwood, A. C. Schat and J. L. Bevan, "A picture is worth a thousand words: A content analysis of Facebook profile photographs," Computers in Human Behavior, vol. 27, no. 5, pp. 1828-1833, 2011.
28. A. M. Noura, Y. Vazquez-Alvarez, A. McKay and A. Vinciarelli, "Face-based automatic personality perception," 22nd ACM international conference on Multimedia, pp. 1153-1156, 2014.
29. N. J. Hum, P. E. Chamberlin, B. L. Hambright, A. C. Portwood, A. C. Schat and J. L. Bevan, "A picture is worth a thousand words: A content analysis of Facebook profile photographs," Computers in Human Behavior, vol. 27, no. 5, pp. 1828-1833, 2011.
30. D. Preot, iuc-Pietro, S. Volkova, V. Lampos, Y. Bachrach and N. Aletras, "Studying User Income through Language, Behavior and Affect in Social Media," PLoS ONE, vol. 10, no. 9, 2015.
31. D. Preot, iuc-Pietro, V. Lampos and N. Aletras, "An Analysis of the User Occupational Class through Twitter Content," 53rd Annual Meeting of the Association for Computational Linguistics and the 7th International Joint Conference on Natural Language Processing, p. 1754-1764, 2015.
32. M. D. Choudhury, S. Counts and E. Horvitz, "Social media as a measurement tool of depression in populations," 5th Annual ACM Web Science Conference, WebScience, p. 47- 56, 2013.
33. K. Ulagapriya, Dr. S. Pushpa. "A survey on Fraud Analytics using Predictive model in Insurance Claims", International Journal of Pure and Applied Mathematics, Vol.116, 629-640, 2017
34. D.R. Kumar Raja, Dr.S.Pushpa, "A Survey on Privacy Preserving Data Mining Techniques", International Journal of Applied Engineering Research, Vol 10, 0973-4562.
35. U.Selvi, Dr. S. Pushpa, "A Review of Big Data and Anonymization Algorithms", International Journal of Applied Engineering Research, Vol 10, 0973-4562.
36. Dr. S.Pushpa, Dr.K.S.Easwara Kumar, "Exploring the Influence of Time-Sensitive and Unsupervised Learning of Topic-Specific Information in Citation Analysis" , European Journal of Scientific Research, Vol.67, 474-485.
37. Dr. S.Pushpa, Dr.K.S.Easwara Kumar, "Towards a Time-based Approach for Author Co-citation Analysis", Journal of Information & Computational Science, Vol.8, 262-279.
38. S Pushpa, S Elias, KS Easwarakumar, Z Maamar, "Indexing scholarly publications using telescopic vector trees to discover authors with multiple expertise", International Journal of Information Studies Vol.2, 166-173, 2010.
39. M Sivapriya, S Pushpa, " An Effective Methodology For Minutiae Based Fingerprint Matching Using Singularities Indexing", International Journal of Advanced Research in Computer Engineering.
40. S Pushpa, S Elias, KS Easwarakumar, Z Maamar, "Referral based expertise search system in a time evolving social network", Proceedings of the Third Annual ACM Bangalore Conference, 2010.

ISSN 0976-2132

# **UTKAL HISTORICAL RESEARCH JOURNAL**

**VOLUME: XXXV**

**2021**



**DEPARTMENT OF HISTORY  
UTKAL UNIVERSITY, VANI VIHAR  
BHUBANESWAR-751004, (ODISHA) INDIA**

# EFFECT OF GREEN HRM PRACTICES ON EMPLOYEES WORKPLACE

Prof. KALAIARASAN C, Research Scholar, IDE, University of Madras  
Dr. THENMOZHI S, Assistant Professor, Patrician College of Arts & Science

## ABSTRACT

Green HRM is defined as an environment friendly HR practice that contributes to the sustainable usage of resources in the industrial sectors all over the sphere. The perception has primarily attracted conceptualization attention, rather than any extensive empirical attention. However, it has begun to gain traction and increased academic interest within the management field, because of its potential contribution to improving corporate environmental performance, and its implicit influence over employee workplace behaviors. The objective of the study is to determine the level of satisfaction with reference to gender and to analysis relationship between overall Satisfaction level with E-Payroll System and E-Attendance. Convenient sampling and snow bowling technique were used as sampling technique. Since the research study focuses on satisfaction of the employees on green HRM practices of both men and women. The findings of the study appear to suggest organizations across the globe are absorbing Green HRM as a proactive step towards protecting the environment. So in this paper, researcher have made an attempt to encourage the importance of Green HRM in polluting industries and to study the latest environmental friendly solutions to keep on Green in the Human Resource Function.

**KEY WORDS:** Green HRM, employee satisfaction

## INTRODUCTION

In recent years, the environmental matter has developed as one of the serious societal priorities and as an innovative development strategy of societies. Thus, this subject has been attracting many management scholars because of the strategic significance of emerging a sustainable organization. The "green" human resource management (GHRM), known as "environmental" human resource management, is deliberated as an essential tool for the effective implication of the organization's sustainable development strategy. In fact, the quest for reaching a GHRM can be found at the global level since it brings not only benefits for organizations, such as environmental performance and sustainable performance, but it also motivates individuals to commit in green activities and produce green ideas. Therefore, when a person compels to the environmental goals, she or he has an appropriate change in attitudes and behavior to pursue the green value of the organization. Moreover, their belief towards the in-built benefit of environmental commitment is combined and, subsequently, they are willing to exert extra effort to attain the success of organization's green goals.

## LITERATURE REVIEW

According to SuhaimiSudin (2011), green management initiatives has become an important factor as far as the business is concerned. Also researchers agree that employees must be inspired, empowered and environmentally aware of greening to carry out green management initiatives. The paper also focuses on the development of a new model of strategic Green HRM which includes relationship between assessment based HR interventions, environmental management system, Green intellectual capital and corporate environmental citizenship.

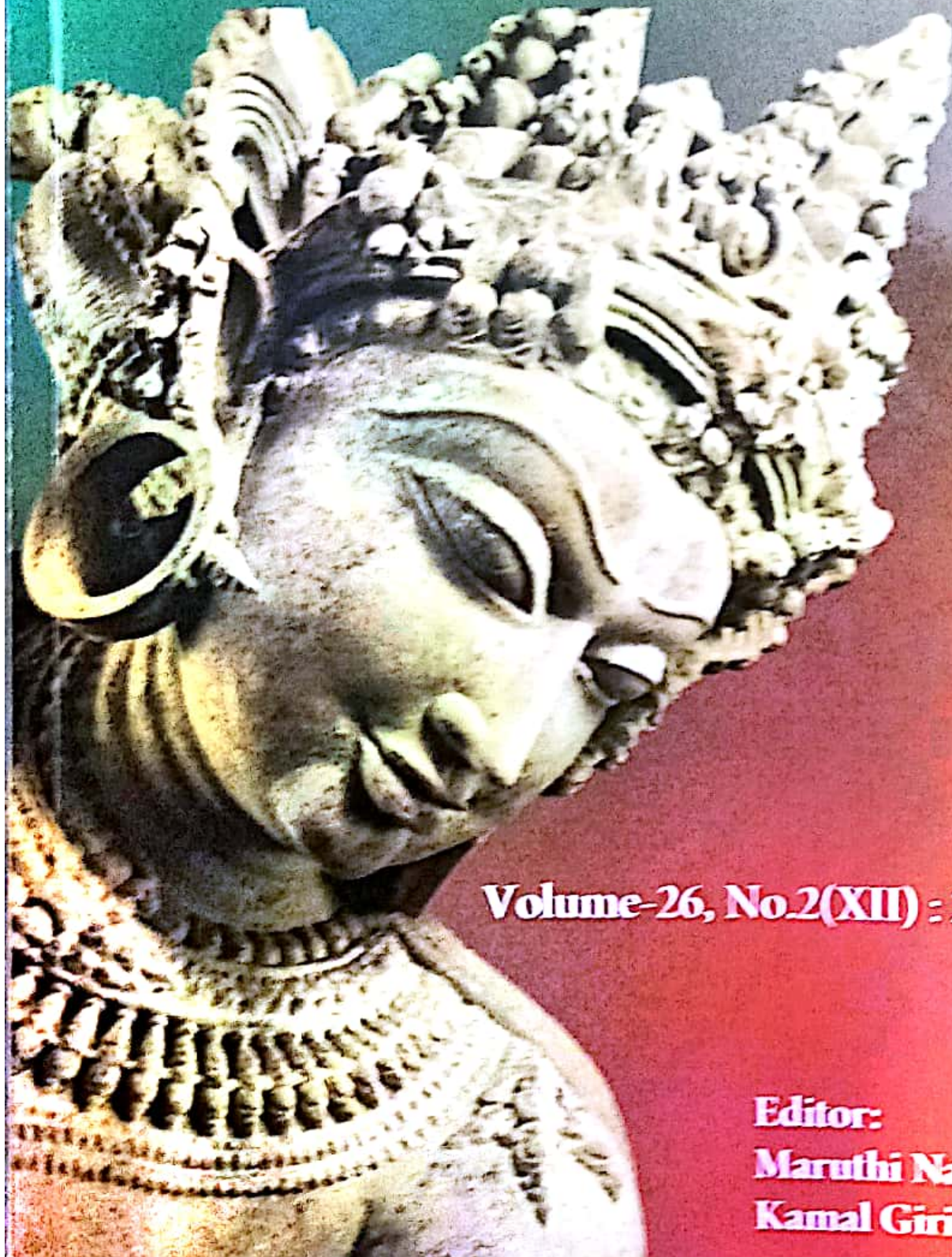
Robert Stoesser (2000) stated that the websites of some key corporations have the capability to accept electronic resumes, for the bulk of small and mid-sized businesses, including many banks. Some banks are considering offering "E-Recruitment" service for their marketable customers.

# KALA

Journal of Indian Art History Congress

ISSN : 0975-7945

KALA



**Volume-26, No.2(XII) : 2020-2021**

**Editor:**  
**Maruthi Nandan Tiwari**  
**Kamal Giri**

# A CRITICAL REVIEW ON IMPACT OF URBANIZATION ON CONSUMER BEHAVIOUR AND IT'S CHALLENGES

Dr. UNIKA D

Associate Professor

Patrician College of Arts and Science

## ABSTRACT

Urbanization, associated with economic development and income growth, largely and strongly occurring in developing countries like India. India today is a highly urbanized country with more than 31% of Indians living in urban areas. Concerns for the sustainability and development of urban are increasing rapidly. As it has become evident that the market challenges of the future will be confronted in an increasingly urbanized world. In particular, consumer behavior is influenced by many factors and urbanization is the most intensive factor of all in the present era. The impact of urbanization which affects consumer behavior in turn affects the market and the economy of a nation. Keeping this in view the present paper aims to examine and to study the impact of urbanization on consumer behavior. A critical review is done to identify the impact of urbanization on urban consumer behavior. The study also suggests various measures to handle the volatility of urban consumer behavior.

**Keywords:** Urbanization, Consumer behavior,

## INTRODUCTION

With the advent of LPG in India post-1990, recent decades have seen unprecedented population growth in urban areas. From 20% of the population in 1990 and today urban represent 31% of the population. Apart from changing lifestyles and working styles urbanization has led to growth in many sectors and left a drastic change in consumer behavior. In recent years urban markets acquired significance as the overall growth of the economy is substantially dependent on urbanization. Urbanization is a complex and dynamic demographic phenomenon, which interacts with globalization, income growth, migration, population growth, income inequality, climate change, health sustainability.

Consumers are often studied and closely monitored because they are significantly affected by many factors. The consumers should be analyzed both from micro and macro level. Micro-level analyses to understand the individual consumer and macro analyses to understand consumer influence on economic and social conditions.

Consumer behavior in most emerging economies such as India has significantly changed due to various reasons like increase in the per capita disposable income, global interaction, information and communication technologies, urbanization, education and health awareness, movement of households towards higher income groups, changes in lifestyle and family structure etc.

## OBJECTIVES OF THE STUDY

- To know the problems of urbanization.
- To identify the impact of urbanization on consumer behavior.
- To suggest the recommendations for urban consumer behavior challenges

## URBANIZATION

Urbanization is a process where populations move from rural to urban areas enabling cities and towns to grow. Accordingly, urbanization is very common in developing and developed countries people move with the hope to acquire privileged social and economic services as well as benefits.

## CAUSES OF URBANIZATION IN INDIA

The main causes of urbanization in India are the expansion of government services as a result of the second world war, Migration of people during the partition of India, The Industrial Revolution, Commercialization, Social benefits




International Journal of Psychosocial Rehabilitation

ISSN:1475-7192

[Login/Register \(/register-login\)](#)

Volume 24 - Issue 6

## CUSTOMER PERCEPTION OF FINANCIAL INCLUSION THROUGH PRADHAN MANTRI JAN DHAN YOJANA (PMJDY)

 Dr. M. Ruben Anto, Dr. R.M. DURAIARASAN

### Abstract

Inclusion in finance is the foundation of a country's economic growth and progress. Without financial inclusion inclusive development is unlikely. The householders were not able to open the bank accounts because of financial analphabetism at present. Pradhan Mantri Jan Dhan Yojana (PMJDY) is one of India 's excellent steps toward financial inclusion, to resolve the constraint. PMJDY's key aims are to provide various financial services such as savings and bank accounts, remittances, loans, insurance, and pensions. There have been 31.56 million account holders currently benefiting from PMJDY. The results of the study prove that the scheme has been successful as far as Chennai is concerned.

### Paper Details

**Volume:** Volume 24

**Issues:** Issue 6

**Keywords:** Pradhan Mantri Jan Dhan Yojana, Financial inclusion, commercial banks, empowerment.

**Year:** 2020

**Month:** April

**DOI:** 10.37200/IJPR/V24I6/PR261281 (<https://doi.org/10.37200/IJPR/V24I6/PR261281>)

**Pages:** 13168-13174

[Login / Register \(/register-login\)](#)

For authors

[Scope \(https://www.psychosocial.com/scope/\)](https://www.psychosocial.com/scope/)

[Track Your Paper \(https://www.psychosocial.com/track-your-paper/\)](https://www.psychosocial.com/track-your-paper/)

[Submit Online \(https://www.psychosocial.com/submit-online/\)](https://www.psychosocial.com/submit-online/)

[Editorial Overview \(https://www.psychosocial.com/editorial-overview/\)](https://www.psychosocial.com/editorial-overview/)

[Instructions for Authors \(https://www.psychosocial.com/instructions-for-authors/\)](https://www.psychosocial.com/instructions-for-authors/)

[Privacy & Cookie Policy \(https://www.psychosocial.com/privacy-cookie-policy/\)](https://www.psychosocial.com/privacy-cookie-policy/)

[Terms & Conditions \(https://www.psychosocial.com/terms-conditions-of-use/\)](https://www.psychosocial.com/terms-conditions-of-use/)



## Quick Links

[About Publisher \(https://www.psychosocial.com/about-publisher/\)](https://www.psychosocial.com/about-publisher/)

[Copy Rights \(https://www.psychosocial.com/text-book/\)](https://www.psychosocial.com/text-book/)

## Contact Us

**editor@psychosocial.com** (mailto:editor@psychosocial.com)

**Hampstead Psychological Associates,**

Suite B19, 110 Gloucester Road,

London, NW1 8JA.

United Kingdom

Copyrights © 2022 SDA, LTD. All Rights Reserved.

# COST ACCOUNTING SYSTEMS STRUCTURE AND INFORMATION QUALITY PROPERTIES: AN EMPIRICAL ANALYSIS

**Dr. S. Jansirani, Dr. N. Purusothaman and Dr. S. Muthukumaravel**

Assistant Professor, Department of Commerce, Patrician College of Arts & Science, Adyar, Chennai

**Abstract - Purpose:** *This paper explores the relationships among cost accounting systems structure and information quality properties through an integrated framework of cost system design and use.*

**Design/methodology/approach:** *In our framework, cost accounting systems structure is defined in terms of the level of detailed information existence, the cost disaggregation according to behaviour, the scope of variances calculation and the frequency of cost information provision. Cost information quality expresses its perceived usefulness by the users in terms of relevance, accuracy, timeliness, usability, compatibility with their needs, up-to-datedness, reliability, and thoroughness for decision-making purposes. In order to investigate the existing relationships, data was gathered from 119 leading Greek manufacturing companies via a questionnaire survey.*

**Findings:** *Our empirical findings indicate that the majority of cost accounting systems structure characteristics exert a statistically significant positive influence on cost information quality dimensions. Only the systems' ability to disaggregate costs according to behaviour and their capability to generate customised to user specifications reports were not found to be statistically significantly associated with information quality.*

**Research limitations/implications:** *We believe that our conclusions have important implications for researchers and professionals with respect to cost systems design as well as cost systems evaluation.*

**Originality/value:** *The innovation of the study lies on the development of an integrated framework that encompasses both cost systems structure characteristics and cost information effectiveness features.*

**Keywords:** *Management accounting systems, Cost accounting systems structure, Cost information quality, Survey, Greece.*

## 1. INTRODUCTION

A critical research issue in the management accounting literature relates to the management accounting systems ability to provide information that assists managers to make better decisions. During the last decades many researchers support the use of more sophisticated management accounting systems on the basis of the refinement of information these systems offer. Similarly, a considerable number of business consultants encourage organizations to introduce recently developed management accounting techniques, such as activity-based costing and balanced scorecard, in order for them to improve the level of information quality, and as a result to enhance decision-making.

Although the issue of whether a management accounting (or cost accounting) system is able to provide information of high quality is not new, it still attracts a lot of attention in the literature. The pressing need to use a cost system that provides relevant information, enhances flexibility and contributes to more effective operational and strategic control is dictated by a number of factors, such as the introduction of modern manufacturing practices, the increase of the fixed manufacturing costs as a proportion of total product cost, the increase of the intensity of competition especially in low-cost markets, etc. (Chiapello and Lebas, 2001; Cooper and Kaplan, 1986; Eccles, 1991; Kaplan, 1984; Neely, 1999; Otley, 1994). This

paper analyzes the associations among cost systems structure attributes and cost information quality properties. More specifically, the study tries to explore whether specific attributes that are indicative of cost accounting systems sophistication exert an influential role on the quality of information used for decision making. The innovation of the study lies on the development of an integrated framework that encompasses both cost systems structure characteristics and cost information effectiveness features. Thus, our research goes beyond the previous research works that usually focus on specific aspects of cost system design and use (see for example, Chenhall and Morris, 1986; Tillema, 2005). Also, this study enhances the research agenda in Greece in relation to management accounting systems implementation that is mostly concentrated on activity-based costing related issues (Ballas and Venieris, 1996; Cohen et al., 2005; Pavlatos and Paggios, 2007; Venieris and Cohen, 2008).

The paper is organized as follows. Section 2 presents the literature review. In Section 3 the research hypotheses are developed, while in Section 4 the methodology employed is described. Section 5 is devoted to the measurement of the variables examined, followed by the presentation of research findings in Section 6. Finally, the research conclusions are presented in Section 7.

## 2. LITERATURE REVIEW

Management accounting systems (MAS) structure is usually defined by four distinct characteristics. These characteristics are: the level of detail of cost information, the ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which cost information is provided to users (**Chenhall and Morris, 1986; Feltham, 1977; Hilton, 1979; Khandwalla, 1972; Simons, 1987**). The level of detail refers to the aggregation of information around periods of time or areas of interest such as responsibility centres or functional areas.

The second characteristic of MAS structure relates to the extent to which a management accounting system can classify costs according to a fixed/variable, direct/indirect and controllable/non-controllable categorization. The third attribute of MAS structure indicates the extent to which a management accounting system allows the analysis of the differences that emerge between budgeted and actual results and, finally, the fourth dimension of MAS structure relates to the degree to which information is provided on request as well as the frequency of reporting systematically collected information. The level of cost accounting systems functionality is approximated by the extent to which these systems embed the four main structure characteristics. More functional cost accounting systems are those that can provide more detailed information, better classify costs according to behaviour, calculate more variances, and report information more frequently (Pizzini, 2006). The other construct examined in the paper, besides MAS structure, is the level of cost information quality. Researchers have employed different attributes of information that serve as measurements of the effectiveness of a management accounting system. First of all, the degree to which a cost accounting system provides high quality information can be reflected by the extent to which the latter is relevant and useful for decision making. Relevance is indicative of the extent to which a cost system provides the information that managers need in order to make decisions in relation to the introduction of new products or services, pricing, redesign of processes, etc. As far as usefulness is concerned, it measures the degree to which managers rely on cost information in order to make decisions (**Pizzini, 2006**).

Besides the aforementioned attributes of cost information quality (e.g. relevance and usefulness), the effectiveness of accounting information systems, in general, has been measured in relevant research papers in terms of user needs satisfaction, accuracy, thoroughness, timeliness, as well as the degree to which information is up-to-date (see for example, Nicolaou (2000)).

More specifically, **Hoque (2000)** measured the use of cost information in terms of its appropriateness for monitoring the firm's organizational activities, such as the evaluation of managers' efficiency, the recognition of non-value adding activities, the valuation of inventories, the analysis of customers' profitability, the design of production and sales strategy and so on.

**Baird et al. (2004)** measured cost information decision usefulness as the possibility for cost distortions in the determination of product / service costs, as a result of product / service diversity and overhead cost contribution to total costs. Furthermore, they examined the degree to which cost data is important for pricing and cost reduction decisions, and the level of reliability data must possess so that a business unit can compete successfully in a market. The statistical analysis of the data they collected, showed that the existence of high potential for cost distortion in product and service costs is significantly associated with the perceived usefulness of cost information for decision making purposes.

Research findings provided by **Chenhall and Morris (1986)** suggest that analytical information is perceived as useful by managers of subunits who have interdependent operations. Furthermore, their findings suggest that the assimilation of information from many sources into a broad scope MAS is of particular relevance to managers in uncertain environments. **Kaplan (1988)** claims that a good product cost system should report expenses incurred not only at each responsibility center, but also across the organization's entire value chain, while **Feltham (1977)** concluded that the expected effect of decisions based on aggregate information is likely to be less compared to that based on detailed information.

In the same **Vein and Pizzini (2006)** found that cost accounting systems that are better, compared to other systems, at supplying detail and classifying costs provide more relevant and useful data, which in turn leads to better financial performance. That is, more functional cost systems seem to supply managers with more relevant data, which they use to make performance-enhancing decisions. Similarly, **Al-Omiri and Drury (2007)** found a positive relationship between the importance given to cost information and the level of cost system sophistication. Prior literature places emphasis on management accounting systems' role in relation to providing information useful for planning and control decisions (**Kaplan, 1983**), which ultimately adds value to the enterprise (**Gupta and Gunasekaran, 2005**). Like formal accounting systems, cost systems are used as tools of corporate strategy (**Cooper and Kaplan, 1988**).

**Nicolaou (2003)** provides supportive evidence that perceptions of effectiveness of a firm's cost management system can be a valid indicator of how well the system is designed to support strategic and operational decision needs that are necessary for the implementation of manufacturing strategy.

More accurate information about production and support activities and product costs focuses management's attention on the products and processes with the most leverage in increasing profits. Also, better knowledge of product costs is a useful tool for making more effective decisions about product design, price setting, entering / leaving markets etc., and encouraging continual operating improvements (**Cooper and Kaplan, 1988**).

According to **Kaplan (1988)**, seriously distorted product costs can result to a losing competitive strategy by deemphasizing and overpricing products that are highly profitable and by expanding commitments to complex, unprofitable lines. However, it should be noted that researchers' views on the associations between management accounting systems functionality and the degree to which cost data is relevant and useful do not always coincide (see for example, **Datar and Gupta, 1994; Dopuch, 1993; Noreen, 1991**).

### 3. HYPOTHESIS DEVELOPMENT

Within our research framework cost accounting systems structure is defined in terms of the level of detailed information existence, the dimension of cost disaggregation according to behaviour, the scope of variances calculation and the frequency of cost information provision. Level of detailed information existence The level of detail of cost information refers to the extent to which information is presented in various forms depending on the criterion of analysis selected such as the customer level or the cost centre level. The higher the level of detail the greater the extent to which the information necessary for making a specific decision is available. This means that the availability of detailed information saves managers' valuable time that would otherwise be spent on formatting cost data each time they had to make a decision. It is, thus, expected that the higher the level of detail the greater the extent to which information is sufficient and has the appropriate level of analysis for decision-making purposes. Moreover, it is expected that highly detailed information provides a clearer and more realistic view of the costs associated

with cost objects and contributes to a better understanding of the way these cost objects affect performance. Finally, it is hypothesized that the higher the level of detail the greater the degree to which costs are analyzed for different purposes and the more appropriate and useful the information for decision making is.

#### ***Cost disaggregation according to behaviour***

The second dimension of cost accounting system's structure, that is its ability to disaggregate costs according to behaviour, reflects the extent to which the system classifies and associates costs in relation to activity alterations (i.e., fixed – variable costs), cost objects (i.e., direct – indirect costs) and managers' actions (i.e., controllable – non-controllable costs). It is expected that better knowledge of cost behaviour provides a more realistic depiction of the impact of managers' actions on costs, allows a more accurate calculation of the costs associated with activities or products and assists managers to better understand cost objects contribution to performance. Furthermore, it is expected that a system which allows better understanding of cost structure, provides information at an appropriate level of analysis for decision making purposes, satisfies users' information queries and, it is, therefore, more intensively used when decisions are made.

#### ***Scope of variances calculation***

The third characteristic of cost accounting systems structure studied is the extent to which variances are calculated. Variance analysis allows a close monitoring of the degree to which budgeted cost and revenue targets are realized. Comparing budgeted to actual results forces managers to evaluate whether their estimations are close to reality, analyze the reasons that explain the deviations from budgets and modify estimations whenever needed. It is assumed that by undertaking an extensive variance analysis the budgets are modified in such a way that they better reflect reality on a frequent basis. As a consequence, the cost estimations are more accurate and reliable and, ultimately, more effective decisions are made. It is, thus, expected that information derived from a cost accounting system that calculates variances to a significant extent, better meets users' needs and it is, thus, more extensively used for decision making purposes.

#### ***Frequency of cost information provision***

The fourth characteristic of cost accounting systems structure is the frequency of cost information provision. This dimension has to do with the degree at which information is provided on a regular basis and it is available upon request. Also, frequency is indicative of the degree to which information quantifies the consequences of recent actions. It is hypothesized that when the information that is available to users is frequent and it is provided in a timely manner, it reflects a more up-to-date and reliable estimation of costs. This, in turn, safeguards that the system provides faster feedback on recently made decisions. Under these conditions, the attribute of frequency helps managers to identify potential problems as well as opportunities in time and make more well-informed and effective decisions. Therefore, the frequency of information provision is related to its relevance in performing managerial tasks, its suitability for user needs satisfaction and its usefulness for decision making.

#### ***The above arguments lead to the following research hypotheses:***

**H1:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with cost accounting information relevance.

**H2:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with cost accounting information accuracy.

**H3:** The frequency at which information is provided to users will be positively associated with cost accounting information timeliness.

**H4:** The frequency at which information is provided to users will be positively associated with the extent to which cost accounting information is up-to-date.

**H5:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with the extent to which cost accounting information meets users' needs (compatibility).

**H6:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour and the extent to which variances are calculated will be positively associated with the extent to which cost accounting information has the appropriate level of analysis (thoroughness).

**H7:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with cost accounting information reliability.

**H8:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with cost accounting information exploitation for decision-making (usefulness).

#### **4. RESEARCH DESIGN**

In order to test the hypothesized relations among cost accounting systems structure characteristics and information quality properties empirical data was collected from the Greek manufacturing industry. We focused on sizable companies that would be likely to have an established management accounting function. The survey instrument was sent to 514 (five hundred fourteen) large manufacturing Greek firms which are included in the ICAP database. The selection criteria used for sampling purposes were the sales revenues, the total assets and the number of employees for year 2006. The collection of data lasted for four months, from November 2007 to March 2008. The questionnaire, accompanied by a cover letter where a brief reference to the scope of the study was made, was addressed to the Chief Financial Officer of each firm [1]. A total of 119 (one hundred nineteen) firms fully completed and returned the questionnaire, yielding a 23.15% response rate [2].

Typical reasons for non-response were lack of time and the fact that participation in surveys is either inconsistent with company policy or a low priority task. Of the 119 (one hundred nineteen) managers who completed the questionnaire, 80.7% hold top executive positions in financial, cost accounting or budgeting departments. This enhances the reliability of the data collected, since the respondents were in position to know the extent to which their firms' cost accounting system was actually utilized as well as the functional characteristics of the system in use. The respondents' average time in service within the sample company was 11 years and in their current position 7 years.

#### **5. VARIABLES MEASUREMENT**

The questionnaire developed for the purpose of the study contained questions suitable for measuring both the cost accounting systems structure characteristics and the information quality properties variables. The questions as well as the descriptive statistics of the relevant variables are presented in the Appendix. Cost accounting systems structure According to our framework of analysis, cost accounting systems structure includes four dimensions, the level of detail of cost information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which cost information is provided to users. These four dimensions are measured via six variables as presented below. Following Pizzini's (2006) methodology we used two questions to quantify the existence of detailed cost information (see Q1.1 and Q1.2 in Appendix).

In Q1.1 respondents were asked to indicate the extent to which their company's cost accounting system allows the analysis of costs at several levels (e.g. customer level). Factor analysis was used in order to reduce the dimensionality of the question. One factor emerged with eigenvalues in excess of one, with the factor solution accounting for 50.92% of the total variation in data. The measure for detailed cost information existence reflects the degree to which the cost accounting system analyzes costs by cost

centre, product and activity (factor DET\_1) [3]. Cronbach's alpha statistic of 0.68 indicates satisfactory internal reliability for the specific scale (Hair et al., 1998).

In Q1.2, respondents were asked to specify the degree to which their company's existing cost accounting system allows the development of customized reports that correspond to user specifications (DET\_2). A 5-point Likert-type scale was used for both questions with anchors of 1 "not at all" and 5 "to a very great extent". The cost accounting systems' ability to disaggregate costs according to behavior was measured through Q.2, in line with Pizzini (2006).

Respondents were asked to indicate the extent to which their existing costing system could distinguish direct and indirect costs, fixed and variable costs and controllable and non-controllable costs on a Likert-type scale ranging from 1 (not at all) to 5 (to a very great extent). Data was factor analyzed to reduce the dimensionality of the question. One factor was extracted which accounts for 63.46% of the total variation in data, while all three question items satisfied the criterion of the minimum factor loading (factor DISAGG). Cronbach's alpha statistic of 0.70 indicates that the responses used to calculate the specific construct are internally consistent. In order to measure the extent to which variance analysis is conducted, respondents were asked (Q.3) to specify the degree to which their cost accounting system calculates a number of variances, drawn from management accounting literature (Hilton et al., 2003), on a Likert-type scale ranging from 1 (not at all) to 5 (to a very great extent). Factor analysis was used to reduce the dimensionality of the question. One factor emerged with eigenvalues greater than one, with the factor solution accounting for 62.72% of the total variation in data. The factor that calculates the extent of variance analysis reflects the degree to which a cost accounting system calculates variances in relation to direct labour rate and efficiency, variable manufacturing overhead, non-manufacturing overhead, direct materials quantity and activities cost (factor VAR). Cronbach's alpha statistic of 0.87 indicates satisfactory internal consistency of the construct. Finally, two questions were used in order to measure the frequency at which cost information is provided to users (Q4.1 and Q4.2). Managers were asked to indicate the degree to which the cost accounting system provides frequent reports on a systematic basis (FREQ\_1), while the second question aimed at capturing the timeliness of the systems (FREQ\_2). Both questions were drawn from the instrument developed by Chenhall and Morris (1986) and were expressed in a 5-point Likert type scale with anchors of 1 "not at all" and 5 "to a very great extent".

### ***Quality of cost information***

Our research framework includes eight dimensions of cost information quality. These are relevance, accuracy, reliability, timeliness, usability, up-to-datedness, compatibility with decision makers' needs and thoroughness suitable for decision making purposes.

In order to measure the relevance of cost accounting information we followed Pizzini's (2006) two-stage approach. We used two questions (Q5.1 and Q5.2) in order to gather data for the calculation of this cost information quality parameter. In the first question (Q5.1) managers were asked to rate the importance they recognize in the availability of cost information while performing several tasks, such as the measurement and the evaluation of departmental performance, the recognition of value-adding activities, on a Likert-type scale ranging from 1 (not at all important) to 5 (very important). In the second question (Q5.2) respondents had to indicate the extent to which their company's existing cost accounting system is capable of providing cost information in order to perform the abovementioned tasks. Their answers were given on a 5-point Likert-type scale with anchors of 1 "not at all" to 5 "to a very great extent" [4]. Subsequently, in order to calculate the value of the variable that measures the relevance of cost accounting information (RELEV) we made the following mathematical transformations. We calculated for each company the average of the absolute differences between the respondents' ratings in relation to the extent to which their company's system provides information for performing an activity and the perceived importance of having cost accounting information available while performing the specific activity. The value of RELEV for each company was calculated as the difference between the company's average and the maximum sample average difference. Thus, the value of RELEV for the cost accounting system, which has the least relevant information, is zero. As for the rest properties of cost accounting information,

single-item questions were used. These questions asked managers to express their agreement or disagreement in relation to a number of statements. More specifically, managers were asked (Q6.1-Q6.7) to rate the extent to which they agree that the cost accounting information is accurate (ACC), up-to-date (DATE) and reliable (REL), is provided in a timely manner (TIME), meets decision makers' needs (NEEDS), has the appropriate level of analysis for decision making purposes (APPR) and is actually used by managers during the decision process (USE). A 5-point Likert-type scale was used for all the above questions with anchors of 1 "strongly disagree" to 5 "strongly agree". Similar instruments have been used in analogous research surveys (Nicolaou, 2000 and 2003; Pizzini, 2006).

## 6. RESEARCH FINDINGS

The research hypotheses were tested via the following eight multivariate regression models:

$$\text{RELEV} = \beta_{0\_1} + \beta_{1\_1} \text{DET\_1} + \beta_{2\_1} \text{DET\_2} + \beta_{3\_1} \text{DISAGG} + \beta_{4\_1} \text{VAR} + \beta_{5\_1} \text{FREQ\_1} + \beta_{6\_1} \text{FREQ\_2} + \varepsilon_1 \quad (1)$$

$$\text{ACC} = \beta_{0\_2} + \beta_{1\_2} \text{DET\_1} + \beta_{2\_2} \text{DET\_2} + \beta_{3\_2} \text{DISAGG} + \beta_{4\_2} \text{VAR} + \beta_{5\_2} \text{FREQ\_1} + \beta_{6\_2} \text{FREQ\_2} + \varepsilon_2 \quad (2)$$

$$\text{TIME} = \beta_{0\_3} + \beta_{1\_3} \text{DET\_1} + \beta_{2\_3} \text{DET\_2} + \beta_{3\_3} \text{DISAGG} + \beta_{4\_3} \text{VAR} + \beta_{5\_3} \text{FREQ\_1} + \beta_{6\_3} \text{FREQ\_2} + \varepsilon_3 \quad (3)$$

$$\text{DATE} = \beta_{0\_4} + \beta_{1\_4} \text{DET\_1} + \beta_{2\_4} \text{DET\_2} + \beta_{3\_4} \text{DISAGG} + \beta_{4\_4} \text{VAR} + \beta_{5\_4} \text{FREQ\_1} + \beta_{6\_4} \text{FREQ\_2} + \varepsilon_4 \quad (4)$$

$$\text{NEEDS} = \beta_{0\_5} + \beta_{1\_5} \text{DET\_1} + \beta_{2\_5} \text{DET\_2} + \beta_{3\_5} \text{DISAGG} + \beta_{4\_5} \text{VAR} + \beta_{5\_5} \text{FREQ\_1} + \beta_{6\_5} \text{FREQ\_2} + \varepsilon_5 \quad (5)$$

$$\text{APPR} = \beta_{0\_6} + \beta_{1\_6} \text{DET\_1} + \beta_{2\_6} \text{DET\_2} + \beta_{3\_6} \text{DISAGG} + \beta_{4\_6} \text{VAR} + \beta_{5\_6} \text{FREQ\_1} + \beta_{6\_6} \text{FREQ\_2} + \varepsilon_6 \quad (6)$$

$$\text{REL} = \beta_{0\_7} + \beta_{1\_7} \text{DET\_1} + \beta_{2\_7} \text{DET\_2} + \beta_{3\_7} \text{DISAGG} + \beta_{4\_7} \text{VAR} + \beta_{5\_7} \text{FREQ\_1} + \beta_{6\_7} \text{FREQ\_2} + \varepsilon_7 \quad (7)$$

$$\text{USE} = \beta_{0\_8} + \beta_{1\_8} \text{DET\_1} + \beta_{2\_8} \text{DET\_2} + \beta_{3\_8} \text{DISAGG} + \beta_{4\_8} \text{VAR} + \beta_{5\_8} \text{FREQ\_1} + \beta_{6\_8} \text{FREQ\_2} + \varepsilon_8 \quad (8)$$

where,

DET\_1: the extent to which the system analyzes costs by cost centre, product and activity

DET\_2: the extent to which the system allows the preparation of customized reports according to users' specification

DISAGG: the extent to which the system classifies costs according to behaviour

VAR: the extent to which the system calculates variances

FREQ\_1: the extent to which the system provides frequent reports on a systematic basis

FREQ\_2: the extent to which the system provides information upon request

RELEV: the extent to which cost information is relevant for decision-making

ACC: the extent to which cost information is accurate

TIME: the extent to which cost information is provided in time

DATE: the extent to which cost information is up-to-date

NEEDS: the extent to which cost information meets users' needs

APPR: the extent to which cost information has the appropriate level of analysis

REL: the extent to which cost information is reliable

USE: the extent to which cost information is used to make decisions

Pearson's correlation coefficients for combinations of all variables demonstrate significant associations between cost systems structure dimensions and information quality properties in the expected direction. A similar picture is presented in relation to Spearman's correlation coefficients. The correlations among the structure features of the cost accounting systems are of medium magnitude (darker shaded area). This finding offers an indication that the design of cost accounting systems in practice is heterogeneous. Additionally, the correlations among the information quality characteristics are also of medium magnitude (lighter shaded area). This finding is an indication that each cost information quality dimension reflects a distinct feature in relation to cost information usefulness for decision making purposes.

All models are significant ( $F_{sig} = 0.000$ ) and the adjusted  $R^2$  range from 25.1% to 50.3%. The results of regression equation 1 reported in Table 5 indicate that relevance of cost accounting information (RELEV) is positively and significantly associated with the degree to which variances are calculated (VAR) and the extent to which reports are provided on a systematic basis (FREQ\_1), while, contrary to expectations, a negative and significant association was found between the extent to which costs are analyzed by cost centre, product and activity (DET\_1) and cost accounting information relevance (RELEV). One possible explanation for this unexpected negative association is that detailed cost information may be satisfactory in terms of accuracy, reliability and meeting managers' needs as discussed below but at the same time it may not constitute the most appropriate presentation of cost data when decisions are to be made.

With respect to regressions 2 and 5, the statistical analysis indicates that the accuracy of cost accounting information (ACC) as well as the system's ability to meet users' needs (NEEDS) are positively and significantly associated with the extent to which costs are analyzed by cost centre, product and activity (DET\_1), the degree to which variance analysis is conducted (VAR) and the extent to which information is provided upon request (FREQ\_2). The abovementioned associations are in the expected direction.

The results of regressions 3 and 4 also support our hypotheses. They provide supporting evidence that the more frequent the cost information (FREQ\_1 and FREQ\_2) the greater the extent to which the latter is provided in time (TIME) and is up-to-date (DATE) and the more variances are calculated (VAR). Regression 6 statistical results present a positive association between the degree to which variances are calculated (VAR) and the extent to which cost information has the appropriate level of analysis (APPR). Moreover, the results show that the dependent variable is positively and significantly associated with the frequency of cost information dissemination (FREQ\_1 and FREQ\_2). The results of regression 7 provide supporting evidence that the greater the extent to which a cost accounting system analyzes costs by cost centre, product and activity (DET\_1) and permits variance calculation (VAR) the more reliable the information that it provides to users (REL). A positive and statistically significant association between the extent to which cost information is used for decision making (USE) and frequency of information provision (FREQ\_1 and FREQ\_2) is revealed by the results of regression 8. The signs of the regression coefficients are in the expected direction. Finally, it should be noted that neither the extent to which the cost accounting system allows the preparation of customized reports according to users specifications (DET\_2) nor the degree to which costs are classified according to behavior (DISAGG) are found to be significant predictors of any of the dependent variables.

## 7. CONCLUSIONS

Our paper has sought to provide insight into the associations among cost accounting systems structure characteristics and cost information quality properties. In order to test our research hypotheses, we used the responses provided by 119 leading manufacturing firms in Greece. In general, our data provides supportive evidence that positive associations among cost systems structure attributes and cost

information quality properties exist. More specifically, the cost accounting structure in terms of detailed information existence, variance calculation and frequency in reports preparation exerts an influential role on the relevance, accuracy, timeliness, usability, compatibility, up-to-datedness, reliability, and thoroughness of information for decision-making purposes. On the contrary, the systems' ability to disaggregate costs according to behaviour and to generate customised reports was not found to be statistically significantly associated with information quality. Overall, our findings support the theoretical argument put forward in the management accounting literature that more functional cost accounting systems provide information of higher quality (e.g. Chenhall and Morris, 1986; Feltham, 1977; Pizzini, 2006).

Moreover, our empirical results indicate that the correlations that exist among the cost accounting systems structure features are statistically significant albeit of medium magnitude. This finding offers an indication that the cost accounting systems used in practice share heterogeneous attributes. Additionally, as the correlations that exist among the information quality characteristics are also positive and of medium magnitude we can infer that each cost information quality dimension reflects a distinct feature in relation to cost information usefulness for decision-making purposes. The research conclusions of our study have important implications for both professionals and researchers. Firstly, the paper presents an integrated model that captures various aspects of the design and use of cost accounting systems. In our paper we present an application of this model in the manufacturing sector. However, thanks to its generic nature, the model is easily applicable to different industry settings as well. Secondly, the study indicates that managers recognize the importance of receiving sophisticated cost information during the decision making process, while at the same time the design of cost systems was found to be a significantly explanatory factor of the quality of cost information. These findings could, therefore, sensitize the designers of cost systems technical facets to the underlying qualities of information that users perceive as useful. Moreover, the instruments of information quality that were examined in this study could provide a useful basis for measuring and evaluating the level of satisfaction users perceive from their existing company cost accounting system. Such an evaluation could also be performed within the context of a post-implementation review. Within that scope, the objective might be to identify those areas that should be addressed in future system development projects.

The above discussion of results suggests a number of useful directions for future research. The fact that our study was constrained to manufacturing firms only, limits the ability to generalize the results to other industries. Thus, the study would be repeated in other sectors of the economy, so as to achieve a better generalization of the results. Finally, our research framework has relied on perceptual measures of both cost systems structure and information quality. Future research could examine the effects of cost system design choices in quantifiable measures of firm performance such as the profitability and cost structure.

## 8. REFERENCES

- Al-Omiri, M. and Drury, C. (2007), "A survey of factors influencing the choice of product costing systems in UK organizations", *Management Accounting Research*, Vol. 18, pp. 399-424.
- Baird, K.M., Harrison, G.L. and Reeve, R.C. (2004), "Adoption of activity management practices: a note on the extent of adoption and the influence of organizational and cultural factors", *Management Accounting Research*, Vol. 15, pp. 383-399.
- Ballas, A. and Venieris, G. (1996), "A survey of management accounting practice in Greek firms", in Bhimani, A. (Ed.), *Management Accounting: European Perspectives*, Oxford University Press, Oxford.
- Chenhall, R.H. and Morris, D. (1986), "The impact of structure, environment, and interdependence on the perceived usefulness of management accounting systems",
- The Accounting Review, Vol. 61 No. 1, pp. 16-35. Chiapello, E. and Lebas, M. (2001), "The Tableau de Bord, a French approach to management information", working paper, H.E.C. School of Management.

- Cohen, S., Venieris, G. and Kaimenaki, E. (2005), “ABC: Adopters, Supporters, Deniers and Unawares”, *Managerial Auditing Journal*, Vol. 20 No. 9, pp. 981-1000.
- Cooper, R. and Kaplan, R.S. (1986), “The promise – and peril – of integrated cost systems”, *Harvard Business Review*, July-August, pp. 109-119.
- Cooper, R. and Kaplan, R.S. (1988), “Measure costs right: make the right decisions”, *Harvard Business Review*, September-October, pp. 96-103.
- Datar, S. and Gupta, M. (1994), “Aggregation, specification and measurement errors in product costing”, *The Accounting Review*, Vol. 69, pp. 567-591.
- Dopuch, N. (1993), “A perspective on cost drivers”, *The Accounting Review*, Vol. 68 No. 3, pp. 615-620.

Article

**Adoption of Genetically Modified Technologies in Agriculture and their sustainability: Some issues**

Journal of Development Economics and Management Research Studies (JDMS), A Peer Reviewed Open Access International Journal  
ISSN: 2582 5119 (Online)  
08(08), 46-52, April-June 2021  
@Center for Development Economic Studies (CDES)  
Reprints and permissions  
<http://www.cdes.org.in/>  
<http://www.cdes.org.in/journal/>

**Adoption of Genetically Modified Technologies in Agriculture and their sustainability: Some issues**

A.Sivaprakasam<sup>1</sup>, A. Abdul Raheem<sup>2</sup> and T.Vaidegi<sup>3</sup>

**Abstract**

*To fulfill the always expanding need for food grains, agrarian Sustainability and the need to create advances that don't affect the climate is the need of great importance. In spite of extraordinary advancement in rural profitability, it would be over-hopeful to accept that the rural creation will stay direct later on. Critical difficulties, notwithstanding, stay to create arrangements that will uphold the more extensive development of more feasible types of agrarian creation, Integrate organic and natural cycles into food creation, limit the utilization of pesticides that cause mischief to the strength of the ranchers , customers and climate. This paper investigations the issues encompassing the selection of GM Technologies and examines the components influencing the shopper and the ramifications of results on the future commitment of GM innovation to agribusiness.*

**Keywords:** GMO, Gene, GM Technology, Identity preservation.

---

<sup>1</sup> Ph.D Research Scholar (Part-Time), PG and Research Department of Economics, The New College (autonomous), Chennai-14.

<sup>2</sup> Associate Professor and Research Supervisor, PG and Research Department of Economics, The New College (autonomous), Chennai-14.

<sup>3</sup> Ph.D Research Scholar (Part-Time), PG and Research Department of Economics, The New College (autonomous), Chennai-14.

## 1.1 Introduction

Science is always truth seeking, beautiful, and caring. The science of GM technology is no exception. It is the application part of the science which, at times, generates contradictions, and not the science *per se*. While there is general appreciation of the potential and impact of GM technology, controversies generally surround the transformation component resulting in Genetically Modified Organisms (GMOs), which may pose certain risks Inherent to the technology. Therefore, it is not the science or the technology which is a subject of controversy, but it is the mode and nature of its application, through techniques and technologies, which could stir contradictions.

Science is consistently truth chasing, wonderful, and mindful. The study of GM innovation is no exemption. It is the application part of the science which, now and again, produces logical inconsistencies, and not the science in essence. While there is general enthusiasm for the potential and effect of GM innovation, debates by and large encompass the change segment bringing about Genetically Modified Organisms (GMOs), which may represent certain dangers Inherent to the innovation. Along these lines, it isn't the science or the innovation which is a subject of contention, yet it is the mode and nature of its application, through procedures and advancements, which could mix logical inconsistencies.

## 1.2 Implications for Agricultural Sustainability

Despite the fact that the reception of GM crops has diminished the employments of pesticide and herbicide in certain nations, the ecological gatherings have been the most vocal in contradicting the GM crops because of their apparent likely dangers to the climate. The absence of unmistakable advantages to the purchaser has made the developing opposition GM nourishments in numerous nations. Reviews have indicated that there were contrasts in the purchaser's information, discernment and ability to burn-through GM food sources. Taiwan and the U.S. were steadier to GM nourishments than Japan, Norway and Spain. Be that as it may, even in the United States, there were advocates just as rivals to GM food sources. Besides, for the individuals who disdained the GM nourishments, they were eager to pay significant charges to the non-GM choices. Apparently, it is as yet basic to improve the yields of principle staple food harvests, for example, rice, corn (maize), wheat, and cassava for food security. Biotechnology, for example, GMOs holds the best guarantee to convey the following Green Revolution. Anyway the way to this objective won't be simple and smooth. Truth be told, it will be rough.

### **Transgenic crops - Modified traits and their use / purpose :**

Crops	Genetic Modification	Purpose
-------	----------------------	---------

# COST ACCOUNTING SYSTEMS STRUCTURE AND INFORMATION QUALITY PROPERTIES: AN EMPIRICAL ANALYSIS

**Dr. S. Jansirani, Dr. N. Purusothaman and Dr. S. Muthukumaravel**

Assistant Professor, Department of Commerce, Patrician College of Arts & Science, Adyar, Chennai

**Abstract - Purpose:** *This paper explores the relationships among cost accounting systems structure and information quality properties through an integrated framework of cost system design and use.*

**Design/methodology/approach:** *In our framework, cost accounting systems structure is defined in terms of the level of detailed information existence, the cost disaggregation according to behaviour, the scope of variances calculation and the frequency of cost information provision. Cost information quality expresses its perceived usefulness by the users in terms of relevance, accuracy, timeliness, usability, compatibility with their needs, up-to-datedness, reliability, and thoroughness for decision-making purposes. In order to investigate the existing relationships, data was gathered from 119 leading Greek manufacturing companies via a questionnaire survey.*

**Findings:** *Our empirical findings indicate that the majority of cost accounting systems structure characteristics exert a statistically significant positive influence on cost information quality dimensions. Only the systems' ability to disaggregate costs according to behaviour and their capability to generate customised to user specifications reports were not found to be statistically significantly associated with information quality.*

**Research limitations/implications:** *We believe that our conclusions have important implications for researchers and professionals with respect to cost systems design as well as cost systems evaluation.*

**Originality/value:** *The innovation of the study lies on the development of an integrated framework that encompasses both cost systems structure characteristics and cost information effectiveness features.*

**Keywords:** *Management accounting systems, Cost accounting systems structure, Cost information quality, Survey, Greece.*

## 1. INTRODUCTION

A critical research issue in the management accounting literature relates to the management accounting systems ability to provide information that assists managers to make better decisions. During the last decades many researchers support the use of more sophisticated management accounting systems on the basis of the refinement of information these systems offer. Similarly, a considerable number of business consultants encourage organizations to introduce recently developed management accounting techniques, such as activity-based costing and balanced scorecard, in order for them to improve the level of information quality, and as a result to enhance decision-making.

Although the issue of whether a management accounting (or cost accounting) system is able to provide information of high quality is not new, it still attracts a lot of attention in the literature. The pressing need to use a cost system that provides relevant information, enhances flexibility and contributes to more effective operational and strategic control is dictated by a number of factors, such as the introduction of modern manufacturing practices, the increase of the fixed manufacturing costs as a proportion of total product cost, the increase of the intensity of competition especially in low-cost markets, etc. (Chiapello and Lebas, 2001; Cooper and Kaplan, 1986; Eccles, 1991; Kaplan, 1984; Neely, 1999; Otley, 1994). This

paper analyzes the associations among cost systems structure attributes and cost information quality properties. More specifically, the study tries to explore whether specific attributes that are indicative of cost accounting systems sophistication exert an influential role on the quality of information used for decision making. The innovation of the study lies on the development of an integrated framework that encompasses both cost systems structure characteristics and cost information effectiveness features. Thus, our research goes beyond the previous research works that usually focus on specific aspects of cost system design and use (see for example, Chenhall and Morris, 1986; Tillema, 2005). Also, this study enhances the research agenda in Greece in relation to management accounting systems implementation that is mostly concentrated on activity-based costing related issues (Ballas and Venieris, 1996; Cohen et al., 2005; Pavlatos and Paggios, 2007; Venieris and Cohen, 2008).

The paper is organized as follows. Section 2 presents the literature review. In Section 3 the research hypotheses are developed, while in Section 4 the methodology employed is described. Section 5 is devoted to the measurement of the variables examined, followed by the presentation of research findings in Section 6. Finally, the research conclusions are presented in Section 7.

## 2. LITERATURE REVIEW

Management accounting systems (MAS) structure is usually defined by four distinct characteristics. These characteristics are: the level of detail of cost information, the ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which cost information is provided to users (**Chenhall and Morris, 1986; Feltham, 1977; Hilton, 1979; Khandwalla, 1972; Simons, 1987**). The level of detail refers to the aggregation of information around periods of time or areas of interest such as responsibility centres or functional areas.

The second characteristic of MAS structure relates to the extent to which a management accounting system can classify costs according to a fixed/variable, direct/indirect and controllable/non-controllable categorization. The third attribute of MAS structure indicates the extent to which a management accounting system allows the analysis of the differences that emerge between budgeted and actual results and, finally, the fourth dimension of MAS structure relates to the degree to which information is provided on request as well as the frequency of reporting systematically collected information. The level of cost accounting systems functionality is approximated by the extent to which these systems embed the four main structure characteristics. More functional cost accounting systems are those that can provide more detailed information, better classify costs according to behaviour, calculate more variances, and report information more frequently (Pizzini, 2006). The other construct examined in the paper, besides MAS structure, is the level of cost information quality. Researchers have employed different attributes of information that serve as measurements of the effectiveness of a management accounting system. First of all, the degree to which a cost accounting system provides high quality information can be reflected by the extent to which the latter is relevant and useful for decision making. Relevance is indicative of the extent to which a cost system provides the information that managers need in order to make decisions in relation to the introduction of new products or services, pricing, redesign of processes, etc. As far as usefulness is concerned, it measures the degree to which managers rely on cost information in order to make decisions (**Pizzini, 2006**).

Besides the aforementioned attributes of cost information quality (e.g. relevance and usefulness), the effectiveness of accounting information systems, in general, has been measured in relevant research papers in terms of user needs satisfaction, accuracy, thoroughness, timeliness, as well as the degree to which information is up-to-date (see for example, Nicolaou (2000)).

More specifically, **Hoque (2000)** measured the use of cost information in terms of its appropriateness for monitoring the firm's organizational activities, such as the evaluation of managers' efficiency, the recognition of non-value adding activities, the valuation of inventories, the analysis of customers' profitability, the design of production and sales strategy and so on.

**Baird et al. (2004)** measured cost information decision usefulness as the possibility for cost distortions in the determination of product / service costs, as a result of product / service diversity and overhead cost contribution to total costs. Furthermore, they examined the degree to which cost data is important for pricing and cost reduction decisions, and the level of reliability data must possess so that a business unit can compete successfully in a market. The statistical analysis of the data they collected, showed that the existence of high potential for cost distortion in product and service costs is significantly associated with the perceived usefulness of cost information for decision making purposes.

Research findings provided by **Chenhall and Morris (1986)** suggest that analytical information is perceived as useful by managers of subunits who have interdependent operations. Furthermore, their findings suggest that the assimilation of information from many sources into a broad scope MAS is of particular relevance to managers in uncertain environments. **Kaplan (1988)** claims that a good product cost system should report expenses incurred not only at each responsibility center, but also across the organization's entire value chain, while **Feltham (1977)** concluded that the expected effect of decisions based on aggregate information is likely to be less compared to that based on detailed information.

In the same **Vein and Pizzini (2006)** found that cost accounting systems that are better, compared to other systems, at supplying detail and classifying costs provide more relevant and useful data, which in turn leads to better financial performance. That is, more functional cost systems seem to supply managers with more relevant data, which they use to make performance-enhancing decisions. Similarly, **Al-Omiri and Drury (2007)** found a positive relationship between the importance given to cost information and the level of cost system sophistication. Prior literature places emphasis on management accounting systems' role in relation to providing information useful for planning and control decisions (**Kaplan, 1983**), which ultimately adds value to the enterprise (**Gupta and Gunasekaran, 2005**). Like formal accounting systems, cost systems are used as tools of corporate strategy (**Cooper and Kaplan, 1988**).

**Nicolaou (2003)** provides supportive evidence that perceptions of effectiveness of a firm's cost management system can be a valid indicator of how well the system is designed to support strategic and operational decision needs that are necessary for the implementation of manufacturing strategy.

More accurate information about production and support activities and product costs focuses management's attention on the products and processes with the most leverage in increasing profits. Also, better knowledge of product costs is a useful tool for making more effective decisions about product design, price setting, entering / leaving markets etc., and encouraging continual operating improvements (**Cooper and Kaplan, 1988**).

According to **Kaplan (1988)**, seriously distorted product costs can result to a losing competitive strategy by deemphasizing and overpricing products that are highly profitable and by expanding commitments to complex, unprofitable lines. However, it should be noted that researchers' views on the associations between management accounting systems functionality and the degree to which cost data is relevant and useful do not always coincide (see for example, **Datar and Gupta, 1994; Dopuch, 1993; Noreen, 1991**).

### 3. HYPOTHESIS DEVELOPMENT

Within our research framework cost accounting systems structure is defined in terms of the level of detailed information existence, the dimension of cost disaggregation according to behaviour, the scope of variances calculation and the frequency of cost information provision. Level of detailed information existence The level of detail of cost information refers to the extent to which information is presented in various forms depending on the criterion of analysis selected such as the customer level or the cost centre level. The higher the level of detail the greater the extent to which the information necessary for making a specific decision is available. This means that the availability of detailed information saves managers' valuable time that would otherwise be spent on formatting cost data each time they had to make a decision. It is, thus, expected that the higher the level of detail the greater the extent to which information is sufficient and has the appropriate level of analysis for decision-making purposes. Moreover, it is expected that highly detailed information provides a clearer and more realistic view of the costs associated

with cost objects and contributes to a better understanding of the way these cost objects affect performance. Finally, it is hypothesized that the higher the level of detail the greater the degree to which costs are analyzed for different purposes and the more appropriate and useful the information for decision making is.

#### ***Cost disaggregation according to behaviour***

The second dimension of cost accounting system's structure, that is its ability to disaggregate costs according to behaviour, reflects the extent to which the system classifies and associates costs in relation to activity alterations (i.e., fixed – variable costs), cost objects (i.e., direct – indirect costs) and managers' actions (i.e., controllable – non-controllable costs). It is expected that better knowledge of cost behaviour provides a more realistic depiction of the impact of managers' actions on costs, allows a more accurate calculation of the costs associated with activities or products and assists managers to better understand cost objects contribution to performance. Furthermore, it is expected that a system which allows better understanding of cost structure, provides information at an appropriate level of analysis for decision making purposes, satisfies users' information queries and, it is, therefore, more intensively used when decisions are made.

#### ***Scope of variances calculation***

The third characteristic of cost accounting systems structure studied is the extent to which variances are calculated. Variance analysis allows a close monitoring of the degree to which budgeted cost and revenue targets are realized. Comparing budgeted to actual results forces managers to evaluate whether their estimations are close to reality, analyze the reasons that explain the deviations from budgets and modify estimations whenever needed. It is assumed that by undertaking an extensive variance analysis the budgets are modified in such a way that they better reflect reality on a frequent basis. As a consequence, the cost estimations are more accurate and reliable and, ultimately, more effective decisions are made. It is, thus, expected that information derived from a cost accounting system that calculates variances to a significant extent, better meets users' needs and it is, thus, more extensively used for decision making purposes.

#### ***Frequency of cost information provision***

The fourth characteristic of cost accounting systems structure is the frequency of cost information provision. This dimension has to do with the degree at which information is provided on a regular basis and it is available upon request. Also, frequency is indicative of the degree to which information quantifies the consequences of recent actions. It is hypothesized that when the information that is available to users is frequent and it is provided in a timely manner, it reflects a more up-to-date and reliable estimation of costs. This, in turn, safeguards that the system provides faster feedback on recently made decisions. Under these conditions, the attribute of frequency helps managers to identify potential problems as well as opportunities in time and make more well-informed and effective decisions. Therefore, the frequency of information provision is related to its relevance in performing managerial tasks, its suitability for user needs satisfaction and its usefulness for decision making.

#### ***The above arguments lead to the following research hypotheses:***

**H1:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with cost accounting information relevance.

**H2:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with cost accounting information accuracy.

**H3:** The frequency at which information is provided to users will be positively associated with cost accounting information timeliness.

**H4:** The frequency at which information is provided to users will be positively associated with the extent to which cost accounting information is up-to-date.

**H5:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with the extent to which cost accounting information meets users' needs (compatibility).

**H6:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour and the extent to which variances are calculated will be positively associated with the extent to which cost accounting information has the appropriate level of analysis (thoroughness).

**H7:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with cost accounting information reliability.

**H8:** The existence of detailed information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which information is provided to users will be positively associated with cost accounting information exploitation for decision-making (usefulness).

#### **4. RESEARCH DESIGN**

In order to test the hypothesized relations among cost accounting systems structure characteristics and information quality properties empirical data was collected from the Greek manufacturing industry. We focused on sizable companies that would be likely to have an established management accounting function. The survey instrument was sent to 514 (five hundred fourteen) large manufacturing Greek firms which are included in the ICAP database. The selection criteria used for sampling purposes were the sales revenues, the total assets and the number of employees for year 2006. The collection of data lasted for four months, from November 2007 to March 2008. The questionnaire, accompanied by a cover letter where a brief reference to the scope of the study was made, was addressed to the Chief Financial Officer of each firm [1]. A total of 119 (one hundred nineteen) firms fully completed and returned the questionnaire, yielding a 23.15% response rate [2].

Typical reasons for non-response were lack of time and the fact that participation in surveys is either inconsistent with company policy or a low priority task. Of the 119 (one hundred nineteen) managers who completed the questionnaire, 80.7% hold top executive positions in financial, cost accounting or budgeting departments. This enhances the reliability of the data collected, since the respondents were in position to know the extent to which their firms' cost accounting system was actually utilized as well as the functional characteristics of the system in use. The respondents' average time in service within the sample company was 11 years and in their current position 7 years.

#### **5. VARIABLES MEASUREMENT**

The questionnaire developed for the purpose of the study contained questions suitable for measuring both the cost accounting systems structure characteristics and the information quality properties variables. The questions as well as the descriptive statistics of the relevant variables are presented in the Appendix. Cost accounting systems structure According to our framework of analysis, cost accounting systems structure includes four dimensions, the level of detail of cost information, the system's ability to disaggregate costs according to behaviour, the extent to which variances are calculated and the frequency at which cost information is provided to users. These four dimensions are measured via six variables as presented below. Following Pizzini's (2006) methodology we used two questions to quantify the existence of detailed cost information (see Q1.1 and Q1.2 in Appendix).

In Q1.1 respondents were asked to indicate the extent to which their company's cost accounting system allows the analysis of costs at several levels (e.g. customer level). Factor analysis was used in order to reduce the dimensionality of the question. One factor emerged with eigenvalues in excess of one, with the factor solution accounting for 50.92% of the total variation in data. The measure for detailed cost information existence reflects the degree to which the cost accounting system analyzes costs by cost

centre, product and activity (factor DET\_1) [3]. Cronbach's alpha statistic of 0.68 indicates satisfactory internal reliability for the specific scale (Hair et al., 1998).

In Q1.2, respondents were asked to specify the degree to which their company's existing cost accounting system allows the development of customized reports that correspond to user specifications (DET\_2). A 5-point Likert-type scale was used for both questions with anchors of 1 "not at all" and 5 "to a very great extent". The cost accounting systems' ability to disaggregate costs according to behavior was measured through Q.2, in line with Pizzini (2006).

Respondents were asked to indicate the extent to which their existing costing system could distinguish direct and indirect costs, fixed and variable costs and controllable and non-controllable costs on a Likert-type scale ranging from 1 (not at all) to 5 (to a very great extent). Data was factor analyzed to reduce the dimensionality of the question. One factor was extracted which accounts for 63.46% of the total variation in data, while all three question items satisfied the criterion of the minimum factor loading (factor DISAGG). Cronbach's alpha statistic of 0.70 indicates that the responses used to calculate the specific construct are internally consistent. In order to measure the extent to which variance analysis is conducted, respondents were asked (Q.3) to specify the degree to which their cost accounting system calculates a number of variances, drawn from management accounting literature (Hilton et al., 2003), on a Likert-type scale ranging from 1 (not at all) to 5 (to a very great extent). Factor analysis was used to reduce the dimensionality of the question. One factor emerged with eigenvalues greater than one, with the factor solution accounting for 62.72% of the total variation in data. The factor that calculates the extent of variance analysis reflects the degree to which a cost accounting system calculates variances in relation to direct labour rate and efficiency, variable manufacturing overhead, non-manufacturing overhead, direct materials quantity and activities cost (factor VAR). Cronbach's alpha statistic of 0.87 indicates satisfactory internal consistency of the construct. Finally, two questions were used in order to measure the frequency at which cost information is provided to users (Q4.1 and Q4.2). Managers were asked to indicate the degree to which the cost accounting system provides frequent reports on a systematic basis (FREQ\_1), while the second question aimed at capturing the timeliness of the systems (FREQ\_2). Both questions were drawn from the instrument developed by Chenhall and Morris (1986) and were expressed in a 5-point Likert type scale with anchors of 1 "not at all" and 5 "to a very great extent".

### ***Quality of cost information***

Our research framework includes eight dimensions of cost information quality. These are relevance, accuracy, reliability, timeliness, usability, up-to-datedness, compatibility with decision makers' needs and thoroughness suitable for decision making purposes.

In order to measure the relevance of cost accounting information we followed Pizzini's (2006) two-stage approach. We used two questions (Q5.1 and Q5.2) in order to gather data for the calculation of this cost information quality parameter. In the first question (Q5.1) managers were asked to rate the importance they recognize in the availability of cost information while performing several tasks, such as the measurement and the evaluation of departmental performance, the recognition of value-adding activities, on a Likert-type scale ranging from 1 (not at all important) to 5 (very important). In the second question (Q5.2) respondents had to indicate the extent to which their company's existing cost accounting system is capable of providing cost information in order to perform the abovementioned tasks. Their answers were given on a 5-point Likert-type scale with anchors of 1 "not at all" to 5 "to a very great extent" [4]. Subsequently, in order to calculate the value of the variable that measures the relevance of cost accounting information (RELEV) we made the following mathematical transformations. We calculated for each company the average of the absolute differences between the respondents' ratings in relation to the extent to which their company's system provides information for performing an activity and the perceived importance of having cost accounting information available while performing the specific activity. The value of RELEV for each company was calculated as the difference between the company's average and the maximum sample average difference. Thus, the value of RELEV for the cost accounting system, which has the least relevant information, is zero. As for the rest properties of cost accounting information,

single-item questions were used. These questions asked managers to express their agreement or disagreement in relation to a number of statements. More specifically, managers were asked (Q6.1-Q6.7) to rate the extent to which they agree that the cost accounting information is accurate (ACC), up-to-date (DATE) and reliable (REL), is provided in a timely manner (TIME), meets decision makers' needs (NEEDS), has the appropriate level of analysis for decision making purposes (APPR) and is actually used by managers during the decision process (USE). A 5-point Likert-type scale was used for all the above questions with anchors of 1 "strongly disagree" to 5 "strongly agree". Similar instruments have been used in analogous research surveys (Nicolaou, 2000 and 2003; Pizzini, 2006).

## 6. RESEARCH FINDINGS

The research hypotheses were tested via the following eight multivariate regression models:

$$\text{RELEV} = \beta_{0\_1} + \beta_{1\_1} \text{DET\_1} + \beta_{2\_1} \text{DET\_2} + \beta_{3\_1} \text{DISAGG} + \beta_{4\_1} \text{VAR} + \beta_{5\_1} \text{FREQ\_1} + \beta_{6\_1} \text{FREQ\_2} + \varepsilon_1 \quad (1)$$

$$\text{ACC} = \beta_{0\_2} + \beta_{1\_2} \text{DET\_1} + \beta_{2\_2} \text{DET\_2} + \beta_{3\_2} \text{DISAGG} + \beta_{4\_2} \text{VAR} + \beta_{5\_2} \text{FREQ\_1} + \beta_{6\_2} \text{FREQ\_2} + \varepsilon_2 \quad (2)$$

$$\text{TIME} = \beta_{0\_3} + \beta_{1\_3} \text{DET\_1} + \beta_{2\_3} \text{DET\_2} + \beta_{3\_3} \text{DISAGG} + \beta_{4\_3} \text{VAR} + \beta_{5\_3} \text{FREQ\_1} + \beta_{6\_3} \text{FREQ\_2} + \varepsilon_3 \quad (3)$$

$$\text{DATE} = \beta_{0\_4} + \beta_{1\_4} \text{DET\_1} + \beta_{2\_4} \text{DET\_2} + \beta_{3\_4} \text{DISAGG} + \beta_{4\_4} \text{VAR} + \beta_{5\_4} \text{FREQ\_1} + \beta_{6\_4} \text{FREQ\_2} + \varepsilon_4 \quad (4)$$

$$\text{NEEDS} = \beta_{0\_5} + \beta_{1\_5} \text{DET\_1} + \beta_{2\_5} \text{DET\_2} + \beta_{3\_5} \text{DISAGG} + \beta_{4\_5} \text{VAR} + \beta_{5\_5} \text{FREQ\_1} + \beta_{6\_5} \text{FREQ\_2} + \varepsilon_5 \quad (5)$$

$$\text{APPR} = \beta_{0\_6} + \beta_{1\_6} \text{DET\_1} + \beta_{2\_6} \text{DET\_2} + \beta_{3\_6} \text{DISAGG} + \beta_{4\_6} \text{VAR} + \beta_{5\_6} \text{FREQ\_1} + \beta_{6\_6} \text{FREQ\_2} + \varepsilon_6 \quad (6)$$

$$\text{REL} = \beta_{0\_7} + \beta_{1\_7} \text{DET\_1} + \beta_{2\_7} \text{DET\_2} + \beta_{3\_7} \text{DISAGG} + \beta_{4\_7} \text{VAR} + \beta_{5\_7} \text{FREQ\_1} + \beta_{6\_7} \text{FREQ\_2} + \varepsilon_7 \quad (7)$$

$$\text{USE} = \beta_{0\_8} + \beta_{1\_8} \text{DET\_1} + \beta_{2\_8} \text{DET\_2} + \beta_{3\_8} \text{DISAGG} + \beta_{4\_8} \text{VAR} + \beta_{5\_8} \text{FREQ\_1} + \beta_{6\_8} \text{FREQ\_2} + \varepsilon_8 \quad (8)$$

where,

DET\_1: the extent to which the system analyzes costs by cost centre, product and activity

DET\_2: the extent to which the system allows the preparation of customized reports according to users' specification

DISAGG: the extent to which the system classifies costs according to behaviour

VAR: the extent to which the system calculates variances

FREQ\_1: the extent to which the system provides frequent reports on a systematic basis

FREQ\_2: the extent to which the system provides information upon request

RELEV: the extent to which cost information is relevant for decision-making

ACC: the extent to which cost information is accurate

TIME: the extent to which cost information is provided in time

DATE: the extent to which cost information is up-to-date

NEEDS: the extent to which cost information meets users' needs

APPR: the extent to which cost information has the appropriate level of analysis

REL: the extent to which cost information is reliable

USE: the extent to which cost information is used to make decisions

Pearson's correlation coefficients for combinations of all variables demonstrate significant associations between cost systems structure dimensions and information quality properties in the expected direction. A similar picture is presented in relation to Spearman's correlation coefficients. The correlations among the structure features of the cost accounting systems are of medium magnitude (darker shaded area). This finding offers an indication that the design of cost accounting systems in practice is heterogeneous. Additionally, the correlations among the information quality characteristics are also of medium magnitude (lighter shaded area). This finding is an indication that each cost information quality dimension reflects a distinct feature in relation to cost information usefulness for decision making purposes.

All models are significant ( $F_{sig} = 0.000$ ) and the adjusted  $R^2$  range from 25.1% to 50.3%. The results of regression equation 1 reported in Table 5 indicate that relevance of cost accounting information (RELEV) is positively and significantly associated with the degree to which variances are calculated (VAR) and the extent to which reports are provided on a systematic basis (FREQ\_1), while, contrary to expectations, a negative and significant association was found between the extent to which costs are analyzed by cost centre, product and activity (DET\_1) and cost accounting information relevance (RELEV). One possible explanation for this unexpected negative association is that detailed cost information may be satisfactory in terms of accuracy, reliability and meeting managers' needs as discussed below but at the same time it may not constitute the most appropriate presentation of cost data when decisions are to be made.

With respect to regressions 2 and 5, the statistical analysis indicates that the accuracy of cost accounting information (ACC) as well as the system's ability to meet users' needs (NEEDS) are positively and significantly associated with the extent to which costs are analyzed by cost centre, product and activity (DET\_1), the degree to which variance analysis is conducted (VAR) and the extent to which information is provided upon request (FREQ\_2). The abovementioned associations are in the expected direction.

The results of regressions 3 and 4 also support our hypotheses. They provide supporting evidence that the more frequent the cost information (FREQ\_1 and FREQ\_2) the greater the extent to which the latter is provided in time (TIME) and is up-to-date (DATE) and the more variances are calculated (VAR). Regression 6 statistical results present a positive association between the degree to which variances are calculated (VAR) and the extent to which cost information has the appropriate level of analysis (APPR). Moreover, the results show that the dependent variable is positively and significantly associated with the frequency of cost information dissemination (FREQ\_1 and FREQ\_2). The results of regression 7 provide supporting evidence that the greater the extent to which a cost accounting system analyzes costs by cost centre, product and activity (DET\_1) and permits variance calculation (VAR) the more reliable the information that it provides to users (REL). A positive and statistically significant association between the extent to which cost information is used for decision making (USE) and frequency of information provision (FREQ\_1 and FREQ\_2) is revealed by the results of regression 8. The signs of the regression coefficients are in the expected direction. Finally, it should be noted that neither the extent to which the cost accounting system allows the preparation of customized reports according to users specifications (DET\_2) nor the degree to which costs are classified according to behavior (DISAGG) are found to be significant predictors of any of the dependent variables.

## 7. CONCLUSIONS

Our paper has sought to provide insight into the associations among cost accounting systems structure characteristics and cost information quality properties. In order to test our research hypotheses, we used the responses provided by 119 leading manufacturing firms in Greece. In general, our data provides supportive evidence that positive associations among cost systems structure attributes and cost

information quality properties exist. More specifically, the cost accounting structure in terms of detailed information existence, variance calculation and frequency in reports preparation exerts an influential role on the relevance, accuracy, timeliness, usability, compatibility, up-to-datedness, reliability, and thoroughness of information for decision-making purposes. On the contrary, the systems' ability to disaggregate costs according to behaviour and to generate customised reports was not found to be statistically significantly associated with information quality. Overall, our findings support the theoretical argument put forward in the management accounting literature that more functional cost accounting systems provide information of higher quality (e.g. Chenhall and Morris, 1986; Feltham, 1977; Pizzini, 2006).

Moreover, our empirical results indicate that the correlations that exist among the cost accounting systems structure features are statistically significant albeit of medium magnitude. This finding offers an indication that the cost accounting systems used in practice share heterogeneous attributes. Additionally, as the correlations that exist among the information quality characteristics are also positive and of medium magnitude we can infer that each cost information quality dimension reflects a distinct feature in relation to cost information usefulness for decision-making purposes. The research conclusions of our study have important implications for both professionals and researchers. Firstly, the paper presents an integrated model that captures various aspects of the design and use of cost accounting systems. In our paper we present an application of this model in the manufacturing sector. However, thanks to its generic nature, the model is easily applicable to different industry settings as well. Secondly, the study indicates that managers recognize the importance of receiving sophisticated cost information during the decision making process, while at the same time the design of cost systems was found to be a significantly explanatory factor of the quality of cost information. These findings could, therefore, sensitize the designers of cost systems technical facets to the underlying qualities of information that users perceive as useful. Moreover, the instruments of information quality that were examined in this study could provide a useful basis for measuring and evaluating the level of satisfaction users perceive from their existing company cost accounting system. Such an evaluation could also be performed within the context of a post-implementation review. Within that scope, the objective might be to identify those areas that should be addressed in future system development projects.

The above discussion of results suggests a number of useful directions for future research. The fact that our study was constrained to manufacturing firms only, limits the ability to generalize the results to other industries. Thus, the study would be repeated in other sectors of the economy, so as to achieve a better generalization of the results. Finally, our research framework has relied on perceptual measures of both cost systems structure and information quality. Future research could examine the effects of cost system design choices in quantifiable measures of firm performance such as the profitability and cost structure.

## 8. REFERENCES

- Al-Omiri, M. and Drury, C. (2007), "A survey of factors influencing the choice of product costing systems in UK organizations", *Management Accounting Research*, Vol. 18, pp. 399-424.
- Baird, K.M., Harrison, G.L. and Reeve, R.C. (2004), "Adoption of activity management practices: a note on the extent of adoption and the influence of organizational and cultural factors", *Management Accounting Research*, Vol. 15, pp. 383-399.
- Ballas, A. and Venieris, G. (1996), "A survey of management accounting practice in Greek firms", in Bhimani, A. (Ed.), *Management Accounting: European Perspectives*, Oxford University Press, Oxford.
- Chenhall, R.H. and Morris, D. (1986), "The impact of structure, environment, and interdependence on the perceived usefulness of management accounting systems",
- The Accounting Review, Vol. 61 No. 1, pp. 16-35. Chiapello, E. and Lebas, M. (2001), "The Tableau de Bord, a French approach to management information", working paper, H.E.C. School of Management.

- Cohen, S., Venieris, G. and Kaimenaki, E. (2005), “ABC: Adopters, Supporters, Deniers and Unawares”, *Managerial Auditing Journal*, Vol. 20 No. 9, pp. 981-1000.
- Cooper, R. and Kaplan, R.S. (1986), “The promise – and peril – of integrated cost systems”, *Harvard Business Review*, July-August, pp. 109-119.
- Cooper, R. and Kaplan, R.S. (1988), “Measure costs right: make the right decisions”, *Harvard Business Review*, September-October, pp. 96-103.
- Datar, S. and Gupta, M. (1994), “Aggregation, specification and measurement errors in product costing”, *The Accounting Review*, Vol. 69, pp. 567-591.
- Dopuch, N. (1993), “A perspective on cost drivers”, *The Accounting Review*, Vol. 68 No. 3, pp. 615-620.

# Linkage between Altman Z score and other financial performances of Ashok Leyland Limited in India – Comparative Analysis

<sup>1</sup>V.L. Govindarajan, Dr N Purusothaman<sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Commerce, DRBCCC Hindu College, Pattabiram, Chennai – 72

<sup>2</sup>Assistant Professor, Department of Commerce, Partician College of Arts and Science, Adyar, Chennai.

## Abstract

*The present study is mainly based on the secondary data and the data is collected from the annual report of selected company and websites of moneycontrol.com, BSE.com etc for the period ended on 31<sup>st</sup> March 2007 to 31<sup>st</sup> March 2019. IGR and SGR under Du Pont analysis and Altman Z score were used as modern financial variable instead of other financial variables like operating profit ratio, ROCE etc. (Suwaidan 2004), Adam Lindgreen et al (2008), Jain Neeta et al, Zhi Tang et al (2010) Md Abdur Rouf (2011) and Yaghoub Alavi Matin et al.2011). All the parameters have been analyzed with descriptive analysis, Karl Pearson's correlation for its validity. The coefficient of determination has also been tested through linear regression analysis and result of co efficient of correlation proved that IGR, SGR and Altman Z score has significant relationship with each other at 1% levels. Dividend per share, Operating profit per share, Return on Capital employed and Inventory turnover ratio has significantly predicted SGR and Asset Turnover only significantly predicts Altman Z score of Ashok Leyland Limited for the study period.*

**Keywords:** Altman Z score, DuPont Analysis, ROA, Ashok Leyland Limited

## 1 Introduction

**1.1 Financial performance:** Company analysis is an thing of Economy-Industry-Company analysis sequence. Financial analysis starts with a historical analysis of earnings and dividend and its growth rate. Growth of economy depends on growth and development of corporate sector. The literature review of Fiori et al (2009) financial performance be measured based on profitability, solvency, liquidity and repayment capacity. Griffin and Mahon (1997) stated that the most popular financial measures are size, ROA, ROE, asset age and 5 years ROS. Babalola et al (2012) in Nigeria, Swati Goyal in India measured financial performances based on Profit After Tax. Bert Scholtens (2006), Brammer et al (2006) measured financial performance based on Profit after Tax and Market capitalization as stock market performances. Zhi Tang et al (2011) measured financial performances based on ROA. Theofanis Karagiorgos (2010) measured financial performances based on total sales, total assets, number of employees and risk and also measured stock return based on market capitalization. Evelyn Setiawan et al (2012) measured financial performances based on ROI and size measured by Total Sales and leverage measured by Total debt to Total Equity.

**Akinmulegun Sunday Ojo (2012)** empirically examined the effect of financial leverage (measured by Debt-Equity ratio) on Earnings per Share (EPS) and Net Assets per Share (NAPS). Author used panel data on effect of leverage on performance indicators of some corporate firms in Nigeria during 1993 and 2005 and employed econometric technique of Vector Auto Regression (VAR) on the variables and found that leverage shock on EPS indirectly affect the NAPS. Leverage therefore significantly affects Corporate Performance.

**Dr. D P Singh (2012)** examined working capital management and profitability in the IT and Telecom industry in India by using Working capital ratio, Sales to Total Asset ratio, Cash conversion cycle and selected 11 companies in India and applied Karl Pearson's coefficient correlation and Regression analysis based on pooled observations and concluded that working capital turnover ratio, Sales to Total Assets ratio and ROCE has positive significant relationship with profitability of both IT and Telecom Industry in India and also observed that Telecom industry is operating below average so far as working capital management concerned.

**Shailesh et al (2013)** examined capital structure practices with its effect on profitability of top 5 pharmaceutical companies in India, listed on BSE for the period of 5 years and used operating profit margin ratio, ROCE, RONW and Debt Equity ratio and applied Regression analysis and found that profitability of selected firms in India, is insignificant in bringing any changes in their Capital structure.

**Dr. Shiv Prasad et al (2013)** examined financial health of ITDC, public sector undertaking in India and concluded that the financial health was in the too healthy zone during 2007, 2008 and 2009, which have come to gray area due to recession in tourism sector, global crisis and terrorist attack at Mumbai.

**Sharma et al (2015)** have remarked in their studies that SAIL's corporate profitability and working capital management component has strong relationship. The profitability ratio has been negatively related with working capital turnover ratio while it has positively related with CR, LR, DTR and ITR. The profitability and working capital management variables of SAIL's exhibit a downward trend for studied period except in 2013-14.

**Ogbodo & Egbunike (2016)** aimed at determining the relation between HR performance ratios (proxy taken were Revenue per employee and Net income per employee) and firm's financial performance (Proxy taken were Return on Assets and Net Profit Margin) in Nigeria. The sample under study was Insurance companies & Banks that were quoted on Nigerian Stock Exchange for the financial year 2012-13. The panel data was generated taking this sample and data for financial years 2008-09 to 2011-12 and was analysed using multiple regression. The results showed that Net income per employee had a positive and significant influence on ROA and Net profit margin while Revenue per employee had a negative and significant influence on ROA and Net profit margin. The authors advocated that firms should disclose soft and hard both the factors that are contributing towards accomplishment of firm's goals and objectives. Also, statutory bodies should develop models to recognize, measure and report Human resource in balance sheet as an asset.

**Dr. S. Vijaylakshmi et.al. (2017)**, in the article titled, "A Study on Financial Performance Analysis of Bharti Airtel Limited", took a period of 5 years from 2011-2016 for the financial assessment of the company selected. The financial tools employed to measure the financial position was ratio analysis. Under ratio analysis short term and long term ratios were used to see the liquidity, profitability and stability level of the company. It can be concluded from the study that the liquidity level of the company keeps on varying. Profitability of the company is not as good as the sales is decreasing and income is also not stable. Bharti Airtel needs to improve their debt position also.

**J.Pavithra. et.al. (2017)** in paper titled, "A Study on the Analysis of the Financial Performance with Reference to Jeppiaar Cements Pvt. Ltd." made a conclusion about the financial performance analysis of Jeppiaar Cements Pvt. Ltd. The period of the study was taken for 5 years from 2009-2013. Comparative financial statements, ratio and trend analysis was employed to study the financial position over the years. It was found that the debtor's turnover ratio had an increasing trend which is not considered a good sign for the company and concluded overall profitability position to be good. The current ratio showed fluctuation but the creditworthiness of the company was observed to be good.

**Dr K Aparna et al (2018)** studied availability of number of economies for producing on a large scale and small size firms by availing particularly the internal economies, carried out to identify whether these internal economies derived from different functional areas are truly enjoyed or not and selected 9335 public limited companies under seven categories for their period of three years from 2014-2016 and applied Analysis of Variance, concluded that greater difference among the different categories of public limited companies with respect to their profitability, expenditure and turnover positions.

**Dr Krishn Awatar Goyal et al (2019)** analyzed the financial performance of TCS Limited under Dupont analysis, Altman B model and found that Company has gained momentum in a positive direction and it can be estimated that in the coming years the upward trend in the sales, operating income, net profit of the company will be observed. The financial health of the company is very sound and it doesn't indicate any sign of the bankruptcy.



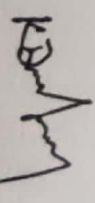
# Science Research Journals

(SRJ Approved & Registered by National Science Library, ISSN, Google Scholar,  
Index Copernicus, Scribd, New Jour, Cite seerX, Sci Rate, Docstoc, etc. )

## Certificate

This is to certify that " R. Sunita " has published a paper entitled  
" Financial Performance of Ashok Leyland Limited – Du Pont Analysis " in the  
International Journal of Science and Management Studies (IJSMS), volume 3  
issue 4 - 2020.

ISSN: 2581-5946

  
Chief Editor

**A STUDY ON GREEN MARKETING AND ITS IMPACT ON CONSUMER BUYING  
BEHAVIOUR IN CHENNAI**

**S. JENIFER ANGELEN** Research scholar & Department of Commerce & *Manonmaniam Sundaranar University* Tirunelveli Tamilnadu, India. [Email-jeni92angel@gmail.com](mailto:Email-jeni92angel@gmail.com)

**R. SUNITA** Research scholar & Department of Commerce & *Manonmaniam Sundaranar University* Tirunelveli Tamilnadu, India. Email- [sunitajohn10@yahoo.com](mailto:sunitajohn10@yahoo.com)

**Dr. M. MOHAMED SIDDIK** Assistant Professor & Department of Commerce & *Sadakathuah Appa College*, Tirunelveli, Tamilnadu, India. Email- [mohsi25@gmail.com](mailto:mohsi25@gmail.com)

**Abstract**

Green marketing is going to be proactive topic with it steps into the world of the consumers where consumers are not only aware for the multiple brands and their perceived quality but also they have started to pay more attention to the environment and thereby becoming more eco-friendly. Global warming, pollution and climate change are some of the problems that have become an increasingly concerning issue internationally. Environmental deterioration has led to businesses changing the way in which they conduct themselves, leading to the emergence of green marketing. A considerable amount of research has been conducted on green marketing and consumer behaviour mainly in developed cities in India. There is, however, a noticeable dearth of knowledge pertaining to consumers in Chennai. Thus, the aim of this paper is to examine, at an exploratory level, the influence of green marketing on the purchasing behaviour of Chennai consumers. A survey was conducted on a sample of 100 consumers using a quantitative, exploratory and descriptive design. The results indicate that Chennai consumers have high knowledge levels on the issues facing the environment. Elements of the green marketing mix, specifically, green promotion, were found to raise awareness and encourage positive change in consumption behaviour. A large proportion of respondents preferred to patronize socially responsible retailers. Furthermore, respondents preferred green products over standard alternatives. However, they were price sensitive which affected their purchasing decisions. It emerged that there was no significant difference between low and high income earners in terms of price sensitivity, and no significant difference between lower and higher qualified respondents in terms of knowledge and awareness of environmental degradation and green marketing.

**Keywords:** green marketing, green marketing mix, consumer purchase decisions.

**1. INTRODUCTION**

**Green marketing** refers to the process of selling products and/or services based on their environmental benefits. Such a product or service may be environmentally friendly in itself or produced and/or packaged in an environmentally friendly way. The obvious assumption of green marketing is that potential consumers will view a product or service's "greenness" as a benefit and base their buying decision accordingly. The not-so-obvious assumption of green marketing is that consumers will be willing to pay more for green products than they would for a less-green comparable alternative product - an assumption that, in my opinion, has not been proven conclusively. While green marketing is growing greatly as increasing numbers of consumers are willing to back their environmental consciousnesses with their dollars, it can be dangerous. The public tends to be skeptical of green claims to begin with and companies can seriously damage their brands and their sales if a green claim is discovered to be false or contradicted by a company's other products or practices. Presenting a product or service as green when it's not is called greenwashing. Simply put, green cleaning is about using products that are safe and healthy for you and the environment and about employing eco-friendly cleaning practices, like reducing water

usage. It's also about using products from conscientious companies with sustainable business practices.

green marketing to be effective, you have to do three things; be genuine, educate your customers, and give them the opportunity to participate.

**1) Being genuine** means that

- That you are actually doing what you claim to be doing in your green marketing campaign and
- That the rest of your business policies are consistent with whatever you are doing that's environmentally friendly. Both these conditions have to be met for your business to establish the kind of environmental credentials that will allow a green marketing campaign to succeed.

**2) Educating your customers** isn't just a matter of letting people know you're doing whatever you're doing to protect the environment, but also a matter of letting them know why it matters. Otherwise, for a significant portion of your target market, it's a case of "So what?" and your green marketing campaign goes nowhere.

**3) Giving your customers an opportunity to participate** means personalizing the benefits of your environmentally friendly actions, normally through letting the customer take part in positive environmental action.

## II. LITERATURE REVIEW

### Green marketing

Green marketing has become an important area of focus for both companies and society in general. It is similar to traditional marketing, the only difference is that it incorporates marketing activities that entail manufacturing, differentiating, pricing and promoting goods or services which are environmentally safe and are able to satisfy consumers' environmental needs (Ansar, 2013). Green marketing is defined by Diglel and Yazdanifard (2014) as a range of activities, which include alteration of the production process, adjustment of product lines and progression in packaging, as well as transforming advertising.

The term "green marketing" is used interchangeably with "sustainable marketing", "ecological marketing" or "environmental marketing". The objective is, ultimately, to sell products that are harmless to the environment, whilst simultaneously actively encouraging consumers to support and protect the environment (Stern and Ander, 2008). This implies that businesses need to change the way in which they operate and to provide products that are beneficial to both consumers and the environment.

### Green business

The Department of Environmental Affairs and Tourism (2005) believes that globalization has resulted in a shift in the way business is conducted. This, along with the growing pressure on the environment as well as the usage and exploitation of natural resources, has meant that trade and the environment have become inextricably linked. There are various reasons, besides environmental degradation, for companies adopting green marketing. Singh (2012) identifies government pressure, corporate social responsibility, opportunity, and stake-holder and competitive pressure as key motives to embracing green marketing within firms.

Many studies have shown that consumers prefer eco-friendly products and have a favourable attitude towards companies that follow green practices (Bhatia and Jain, 2013). Rayapura (2014), in support, cites a Nielsen global study which showed that 55% of global online consumers across sixty countries surveyed expressed willingness to pay more for products and services from companies that are dedicated to positive social and environmental impact. Marcacci (2013) observes that there has been a significant increase in the demand for green products and services, as well as for green enterprises. Therefore, consumer demand for environmentally safe products is considered to be the primary motivation behind

## THE CONCEPT OF GREEN MARKETING CHALLENGES AND OPPORTUNITIES FOR SUSTAINABLE DEVELOPMENT

□ S. JENIFER ANGELEN\*

□ R. SUNITA\*\*

□ Dr. M. MOHAMED SIDDIK\*\*\*

### ABSTRACT

Green revolutions, going green, environmental protection, sustainable life style, sustainable development, protecting our earth and many more have become a natural phenomenon in our everyday life. Green marketing is a tool used by many companies in various industries to follow this trend. The development of green marketing has opened the door of opportunity for companies to co brand their products into separate line, lauding the green-friendliness of some while ignoring that of others. This paper mainly focuses on the concept, need, importance & strategy of green marketing in India. As society becomes more concerned with the natural environment, businesses have begun to modify their behavior in an attempt to address society's "new" concerns. Some businesses have been quick to accept concepts like environmental management systems and waste minimization, and have integrated environmental issues into all organizational activities. One business area where environmental issues have received a great deal of discussion in the popular and professional press is marketing. Terms like "Green Marketing" and "Environmental Marketing" appear frequently in the popular press. Many governments around the world have become so concerned about green marketing activities that they have attempted to regulate them.

**Keywords :** Green marketing, Sustainability, Environmentally Safe, Recyclable, Eco-Friendly products.

### Introduction

The term green marketing is often used freely and in the wrong context. The terms like phosphate free, recyclable, refillable, ozone friendly and environmentally friendly are some of the things consumers most often associate with green marketing. But green marketing incorporates a broad range of actions such as the product modification, changes to the production process, packaging changes, as well as modifying advertising which can be applied to consumer goods, industrial goods and even services. According to a recent research, at a world level, the positive fame of a company about its environmental responsibility is determined by the 53% of consumers (about 1 billion) as an important reason that makes them buy and use its products. Unfortunately, a majority of people

believe that green marketing refers only to the endorsement or advertising of products with environmental characteristics. Terms like Phosphate free, Recyclable, Ozone friendly, and environment friendly are some of the things consumers most often associated with green marketing. In general, green marketing is a much broader concept that can be useful to consumer goods, industrial goods and even services. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising.

### WHAT IS GREEN MARKETING :

□ The marketing or promotion of a product based on its environmental performance or an improvement thereof (Charter & Polonsky 1999).

\* Research scholar & Department of Commerce & Manonmaniam Sundaranar University Tirunelveli Tamilnadu, India.

\*\*Research scholar & Department of Commerce & Manonmaniam Sundaranar University Tirunelveli Tamilnadu, India

\*\*\* Assistant Professor & Department of Commerce & Sadakathuah Appa College, Tirunelveli, Tamilnadu, India.

- A holistic and responsible strategic management process that identifies, anticipates, satisfies and fulfils stakeholder needs, for a reasonable reward, that does not adversely affect human or natural environmental well-being.

Green marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment. A greater part of people believe that green marketing refers solely to the promotion or advertising of products with environmental characteristics. Terms like Phosphate Free, Recyclable, Refillable, Ozone Friendly, and Environmentally Friendly are some of the things consumers most often associate with green marketing. While these terms are green marketing claims, in general green marketing is a much broader concept, one that can be applied to consumer goods, industrial goods and even services. For example, around the world there are resorts that are beginning to promote themselves as "eco-tourist" facilities. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. Yet defining green marketing is not a simple task. Indeed the terminology used in this area has varied, it includes: Green Marketing, Environmental Marketing and Ecological Marketing. This early definition has three key components, such as it is a subset of the overall marketing activity; it examines both the positive and negative activities; and narrow ranges of

environmental issues are examined.

## **WHY IS GREEN MARKETING CHOSEN BY MOST MARKETERS?**

Most of the companies are venturing into green marketing because of the following reasons:

### **a. Opportunity**

In India, around 25% of the consumers prefer environmental-friendly products, and around 28% may be considered healthy conscious. Therefore, green marketers have diverse and fairly sizeable segments to cater to. The Surf Excel detergent which saves water (advertised with the message—"do bucket paanirozbachana") and the energy-saving LG consumers durables are examples of green marketing. We also have green buildings which are efficient in their use of energy, water and construction materials, and which reduce the impact on human health and the environment through better design, construction, operation, maintenance and waste disposal.

### **b. Social Responsibility**

Many companies have started realizing that they must behave in an environment-friendly fashion. They believe both in achieving environmental objectives as well as profit related objectives. The HSBC became the world's first bank to go carbon-neutral last year. Other examples include Coca-Cola, which has invested in various recycling activities. Walt Disney World in Florida, US, has an extensive waste management program and infrastructure in place.

### **c. Governmental Pressure**

Various regulations are framed by the government to protect consumers and the society at large. The Indian government too has developed a

## RELATIONSHIP BETWEEN CORPORATE SOCIAL RESPONSIBILITY, CORPORATE ETHICS AND CORPORATE GOVERNANCE

□ R. SUNITA\*  
□ Dr. M. MOHAMED SIDDIK\*\*

### ABSTRACT

Corporate Social Responsibility (CSR), Corporate Ethics (CE) and Corporate Governance (CG) are conceptualized by the Western countries, where their practices have developed tremendously in the last decade. The success of modern business is apparent, but recently there is much concern in the business-and-society literature and in the general press on whether business fulfils its social role responsibly. Business ethics, corporate social responsibility and corporate governance movements have been developed in recent decades as responses to a growing sense of corporate wrongdoing. This paper attempts to explain why the three movements seem yet to have generated little in the form of widely accepted prescriptions for improvement of business behavior to the satisfaction of the “constituents” of business, i.e. the major stakeholders. Without denying the usefulness of any of the three movements, the paper suggests that there are weaknesses in all three, especially concerning the way they conceive modern business operation. To this end business pluralism, responsive codes of practice and re-examination of the assumptions (conditions) of business operation could be helpful.

**Keywords :** Business Ethics; Corporate Social Responsibility; Corporate Governance.

### Introduction

Corporate social responsibility is a topic that has been given increased attention in the last two decades in practice and in theory, both in management and law. Defined in an influential 1970's article as “the firm's considerations of, and response to, issues beyond the economic, technical, and legal requirements of the firm to accomplish social benefits along with the traditional economic gains which the firm seeks,” the European Commission more simply defined it in 2011 as “the responsibility of enterprises for their impacts on society.” As the Commission stated in adopting that definition, “[e]nterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders.” Thus, the emphasis has shifted from philanthropy and attention to corporate action “beyond law,” to an inquiry into how a company conducts its business. Indicative of

this shift, many academics and practitioners in management now refer to the topic as corporate responsibility, not corporate social responsibility, as will this author.

In the business literature there is a major strand that celebrates business strength and seeks formulae for success. This strand was manifested in the Scientific Management tradition dating from Frederic Taylor's work in the early twentieth century (Taylor, 1911) and continued through the Human Relations studies of Elton Mayo that sought to find growth through taking care of the “people dimension” (Roethlisberger and Dickson, 1939). The tradition was further developed following the publication by Peters and Waterman (1982) of their book *In Search of Excellence*, and by Goldsmith and Clutterbuck (1985) in *The Winning Streak* and by the movement for business process re-engineering (Hammer & Champny, 2001).

\* Research scholar & Department of Commerce & Manonmaniam Sundaranar University Tirunelveli Tamilnadu, India.

\*\* Assistant Professor & Department of Commerce & Sadakathuah Appa College, Tirunelveli, Tamilnadu, India.

In contrast, a parallel discussion has always existed concerning the growth in (compulsory or voluntary) systems and organisations established for regulating international and national business, and indeed, for protecting consumers from some of the effects of the less admirable business behaviour. In the United States, antimonopoly legislation has existed, for example in the Anti-Trust laws from the 1880s. Consumer lobbies have successfully campaigned over the safety of motorcars and many other issues.

However, business activity has also raised a wide range of critical views expressed largely in the communications media. The presence of critiques of business activity is not a new phenomenon. In particular, business activity by large enterprises has always faced criticism. Some of the critics have been internal<sup>1</sup>, but other criticism is extended to the way large businesses behave towards small businesses and dominate consumers, suppliers and the labour market, for example<sup>2</sup>. Some of these issues have given rise to legislation and to regulatory agencies, designed to remedy particular problems or excesses that have been identified. The publication of the International Labour Organization's Labour Standards in the 1920s resulted from reports of abuses as well as from the economic disruptions following the First World War. These standards have often been reported as being systematically and chronically evaded in many areas.

Following these criticisms, three movements have emerged in America and Europe in recent decades, which appear to offer ways of alleviating corporate abuse. They have much in common, despite their different origins and different emphases. They are: business ethics, corporate social responsibility and corporate governance.

## OBJECTIVES:

- To review these three movements in the light of the literature that serves them, and in the light of the problems they seek to address;
- To identify their similarities and differences;
- To provide a summary critique based on the notion of business as an ideology that could benefit from the introduction of a more pluralistic conception of the role of business and management;

## BUSINESS ETHICS, CORPORATE SOCIAL RESPONSIBILITY & CORPORATE GOVERNANCE:

As mentioned in the outset of this paper, recently, i.e. in the last twenty years or so, attention has been drawn to the idea that businesses also have obligations to the wider communities. This has been manifested in the (now well-organized and articulated) business ethics movement, in the corporate social responsibility movement, and in the corporate governance movement. Within their contexts, concepts such as stakeholders and codes of practice have been, and are being developed. These three movements can now be examined in the light of the literature that serves them, and in the light of the problems they seek to address in order to identify their similarities and differences.

## BUSINESS ETHICS

Business ethics as a self-conscious (voluntary) way of looking at business has shown a major growth since the 1980s. In particular, in the USA in the 1970s, concerns were being voiced in relation to several developments:

- Rising costs of litigation involving architects, accountants and lawyers<sup>3</sup>
- Positive discrimination

# Hypertext Induced Topic Search framework based on Relational Semantic Analyzer

S. John Vaseekaran<sup>1</sup>  
Research Scholar,  
Sathyabama Institute of Science &  
Technology,  
Chennai - 600119, Tamil Nadu,  
vaseekaranjohn168@gmail.com

Dr N Srinivasan<sup>2</sup>  
Adj. Professor, WILP, BITS-Pilani  
professorsrini@gmail.com

**Abstract** - A relation analysis algorithm that scores the Web pages is hyperlink-induced subject search also known as portals and experts. The idea behind Hubs & Authorities was focused on a specific insight into web pages generated when the Internet was formed; that is, many web pages called hubs acted as broad directories, which were not impartial in the information kept but used as remixes of a comprehensive information catalogue that directed the users to other prominent pages. A good gateway is a page pointing to many other websites, while a good authoritative describes a page connected by many different hubs. Search engines play a more and more important role with the immense development in knowledge accessible to end users across the Web. It is always less rare, though that the findings collected are a burden of worthless pages regardless of their general purpose. The Network infrastructure of the next generation, defined by the Semantic Web, offers the level of architecture that will transcend this constraint. A variety of search engines were suggested that improve the accuracy of knowledge collection by taking advantage of main material of Semantic Web tools, namely relationships. However most current solutions would function on the annotated entire knowledge base in order to interpret the data. In this paper we recommend a page rank algorithm based on relationships that can be used along with search engines from the semantic web, which basically relies on knowledge that can be retrieved and annotational resources extracted. Pertinence is calculated as the likelihood that a collected resource currently includes associations that the user expected to exist when he established the query. The major contribution of this work is to create an algorithm for scoring results based on the mathematical model of a simultaneous correlation between various keywords and an odd membership score. Compared to the related programmes, conducted test cases have better accuracy rating with sufficient response time.

## I. INTRODUCTION

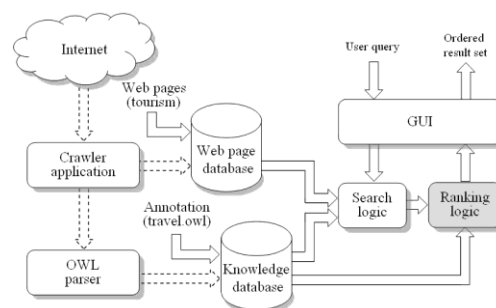
The growth of the World wide web has brought the common search algorithms fresh problems to be confronted. The user's input query can impact an access control model, and the topics retrieved may vary and are not connected to a search subject[1]. Also, depending on importance and semantic relationships to the topic of search[3]–[5], the findings obtained can be influenced by the classification process[2]. In this region, therefore, there are several major challenges which can be summarized [6]–[8]:

- (i) Many of the existing search engines only focus on indexing and discovery of numerous keyword pages which are often short, vague and which do not represent the importance of the topic.
- (ii) Different search often use the user's query to search in databases in order to maximise the reach of the search and boost the accuracy of the returns without changing the keywords.

(iii) Ranking is a big concern and not an issue for search engines. If a page is important to a question but very low (for example, below top 20), the user would obviously not see the page.

The goal is to overcome the limitations of semantic search and conventional, keyword-based search related issues. Semantic search uses tags to retrieve data, add the value of linking these tags to understand the context behind them and add more tags to help boost the results of searches [9]. An ontological approach that represents vocabularies and relations among semantic entities. The components that exist in any domain or region that reflect the tic-semanrelationship[10]-[14] are defined in the ontology. This paper separates the contributions into four main groups, which can be summarised as follows:

The semantical structure for web retrieval is suggested of the enhancing the ambiguous input query and correctly extracting relevant data in reasonable time using techniques like MapReduce and Latent Dirichlet allotment that a novel pre-processing algorithm has been developed to extract keywords useful from crawled sites. To order and identify the corresponding results of the ambiguous query based on semantized relationships a rating algorithm and mathematics model of the semantized scoring is developed. Enhancement of the query engine using a Wordnet and analyser ontology to boost keyword input.



**Fig1.** Overview of HITS system

We also continued to expand the information available to Internet users by significantly expanding the Site. However, it is increasingly necessary for end-users, by merely following the hyperlink network as Berners-Lee and Fischetti had expected in 1999, to navigate this vast repository and locate the appropriate resources.[4] The most useful resource today for the organisation of information and content retrieval from the Web[9] is the search engines. However, there are several sites that are certainly pointless for the customer, including among the most renowned search engines,[18]. This is largely because the very simple requirements for their recuperation approach depend on the inclusion of question keywords on the pages returned. It must be remembered that mathematical algorithms are used in the "tuning" of the outcome and more significantly, methods are used to optimise customer satisfaction based on the principle of significance feedback.

In certain instances, to show this peculiar effect, let's see what happens when a consumer enters the Italian edition of the well-known Google search engine with a query composed of the following keywords: Hotel, Rome and Historical Center (or hotel, Rome and the Centro Stoic). He or she wouldn't be very shocked if she noticed that the result package actually consists of several hotels in the historical area. An additional hotel in a small town is also included, which is some distance from the centre of Rome. However, there are two hotels in the historic centre of other major Italian cities. Finally, the three hotels called Roma, even though they have little to do with the chosen area, are among the 10 most important results. The consumer wants only 4 of the 10 findings provided (even if they seem to satisfy the user query, based on the strategy adopted to process it).

## OPTIMAL ESTIMATION FOR THE NORM OF PRE-SCHWARZIAN DERIVATIVE

K. MUTHUNAGAI, G. SARAVANAN<sup>1</sup>, AND S. BASKARAN

ABSTRACT. In this research contribution we have considered two subclasses of bi-univalent functions defined using subordination and studied about the bounds for the pre-Schwarzian norm. Initially Shalini et al. have handled this problem. We have made a remark on the proofs and bounds by Shalini et al.

### 1. INTRODUCTION

Let  $H$  be the class consisting of all analytic functions on the unit disk  $U$  where  $U = \{z : z \in \mathbb{C}, |z| < 1\}$ . Consider the subclass  $A$  of  $H$ , that comprises of all analytic functions that are normalized in the form

$$(1.1) \quad f(z) = z + \sum_{n=2}^{\infty} a_n z^n.$$

Let

$$L_u = \{f \in A : f'(z) \neq 0, z \in U\},$$

the class of all locally univalent functions. The norm  $\|T_f\|$  of the pre-Schwarzian derivative of  $f \in L_u$  is defined by

$$\|T_f\| = \sup_{|z|<1} (1 - |z|^2) \left| \frac{f''(z)}{f'(z)} \right|.$$

<sup>1</sup>corresponding author

2010 *Mathematics Subject Classification.* 30C45, 30C15.

*Key words and phrases.* Bi-univalent, pre-Schwarzian derivatives, Subordination.

- [8] H. MAHZOON, R. KARGAR: *Notes on the norm of pre-Schwarzian derivatives on bi-univalent functions of order  $\alpha$*  2019, arXiv preprint arXiv:1908.01397 .
- [9] H. RAHMATAN, S. H. NAJAFZADEH, A. EBADIAN: *The norm of pre-Schwarzian derivatives on bi-univalent functions of order  $\alpha$* , Bulletin of the Iranian Mathematical Society, **43**(5) (2017), 1037–1043.
- [10] S. RANA, P. GOSWAMI, R. S. DUBEY: *The norm of pre-Schwarzian derivative on subclasses of bi-univalent functions*, AIMS Mathematics, **3**(4) (2018), 600–607.
- [11] G. SARAVANAN, K. MUTHUNAGAI: *Estimation of Upper Bounds for Initial Coefficients and Fekete-Szegő Inequality for a Subclass of Analytic Bi-univalent Functions*, Applied Mathematics and Scientific Computing, Trends in Mathematics, Birkhäuser, Cham, Springer Nature Switzerland, (2019), 57–65.
- [12] S. YAMASHITA: *Norm estimates for function starlike or convex of order  $\alpha$* , Hokkaido Math. J., **28** (1999), 217–230.
- [13] Q. H. XU , Y. C. GUI, H. M. SRIVASTAVA: *Coefficient estimates for a certain subclass of analytic and bi-univalent functions*, Applied Mathematics Letters, **25**(6) (2012), 990–994.
- [14] Q. H. XU, H. G. XIAO, H. M. SRIVASTAVA: *A certain general subclass of analytic and bi-univalent functions and associated coefficient estimate problems*, Applied Mathematics and Computation, **218** (23)(2012), 11461–11465.

SCHOOL OF ADVANCED SCIENCES  
VIT UNIVERSITY, CHENNAI - 600 127  
TAMIL NADU, INDIA  
E-mail address: muthunagai@vit.ac.in

DEPARTMENT OF MATHEMATICS  
PATRICIAN COLLEGE OF ARTS AND SCIENCE  
ADYAR, CHENNAI-600020, TAMIL NADU, INDIA  
E-mail address: gsaran825@yahoo.com

DEPARTMENT OF MATHEMATICS  
A. M. JAIN COLLEGE  
MEENAMBAKKAM, CHENNAI-600114, TAMIL NADU, INDIA  
E-mail address: sbas9991@gmail.com



## A subclass with bi-univalence involving $(p, q)$ -Lucas polynomials and its coefficient bounds

S. Yalçın<sup>1</sup>  · K. Muthunagai<sup>2</sup>  · G. Saravanan<sup>3,4</sup> 

Received: 3 September 2019 / Accepted: 24 April 2020  
© Sociedad Matemática Mexicana 2020

### Abstract

We have constructed a subclass of analytic bi-univalent functions using  $(p, q)$ -Lucas polynomials in this research contribution. Bounds for certain coefficients and Fekete–Szegő inequalities have been estimated.

**Keywords** Analytic functions · Bi-univalent functions ·  $(p, q)$ -Lucas polynomials · Fekete–Szegő Inequality

**Mathematics Subject Classification** 30C45 · 30C15

### 1 Introduction

Let  $\tilde{f}(z)$  be a normalized analytic function of the form:

$$\tilde{f}(z) = z + \sum_{n=2}^{\infty} a_n z^n, z \in U \quad (1.1)$$

where  $U = \{z : z \in \mathbb{C}, |z| < 1\}$  and let  $A$  be the class of all such functions. Let  $S = \{\tilde{f}(z) \in A \ni \tilde{f}(z) \text{ is univalent in } U\}$ .

---

✉ K. Muthunagai  
muthunagai@vit.ac.in

S. Yalçın  
syalcin@uludag.edu.tr

G. Saravanan  
gsaran825@yahoo.com

<sup>1</sup> Department of Mathematics, Bursa Uludag University, 16059 Bursa, Turkey

<sup>2</sup> School of Advanced Sciences, VIT University, Chennai 600 127, Tamil Nadu, India

<sup>3</sup> Research Scholar, School of Advanced Sciences, VIT University, Chennai 600 127, Tamil Nadu, India

<sup>4</sup> Present Address: Department of Mathematics, Patrician College of Arts and Science, Adyar, Chennai 600 020, Tamil Nadu, India

5. Filippini, P., Horadam, A.F.: Second derivative sequences of Fibonacci and Lucas polynomials. *Fibonacci Q* **31**, 194–204 (1993)
6. Frasin, B.A., Aouf, M.K.: New subclasses of bi-univalent functions. *Applied Mathematics Letters* **24**(9), 1569–1573 (2011)
7. Hayami, T., Owa, S.: Coefficient bounds for bi-univalent functions. *Panamerican Mathematical Journal* **22**(4), 15–26 (2012)
8. Lee, G.Y., Aşci, M.: Some properties of the  $(p, q)$ -Fibonacci and  $(p, q)$ -Lucas polynomials. *J. Appl. Math.* **2012**, 1–18 (2012)
9. Lewin, M.: On a Coefficient problem for bi-univalent functions. *Proc. Amer. Math. Soc.* **18**, 63–68 (1967)
10. Lupas, A.: A guide of Fibonacci and Lucas polynomials. *Octag. Math. Mag.* **7**, 2–12 (1999)
11. Ma, R., Zhang, W.: Several identities involving the Fibonacci numbers and Lucas numbers. *Fibonacci Q* **45**, 164–170 (2007)
12. Özkoç, A., Porsuk, A.: A note for the  $(p, q)$ -Fibonacci and Lucas quaternion polynomials. *Konuralp J. Math.* **5**, 36–46 (2017)
13. Robertson, M.S.: On the theory of univalent functions. *Ann. Math.* **37**, 374–408 (1936)
14. Saravanan, G., Muthunagai, K.: Estimation of Upper Bounds for Initial Coefficients and Fekete-Szegő Inequality for a Subclass of Analytic Bi-univalent Functions. In: *Mathematics, Applied, Computing, Scientific* (eds.) Trends in Mathematics, pp. 57–65. Springer Nature Switzerland, Birkhäuser, Cham (2019)
15. Vellucci, P., Bersani, A.M.: The class of Lucas-Lehmer polynomials. *Rend. Mat. Appl. serie VII* **37**, 43–62 (2016)
16. Vellucci, P., Bersani, A.M.: Orthogonal polynomials and Riesz bases applied to the solution of Love's equation. *Math. Mech. Complex Syst.* **4**, 55–66 (2016)
17. Vellucci, P., Bersani, A.M.: Ordering of nested square roots of 2 according to the Gray code. *Ramanujan. J.* **45**, 197–210 (2018)
18. Wang, T., Zhang, W.: Some identities involving Fibonacci, Lucas polynomials and their applications. *Bull. Math. Soc. Sci. Math. Roum.* **55**, 95–103 (2012)
19. Xu, Q.H., Gui, Y.C., Srivastava, H.M.: Coefficient estimates for a certain subclass of analytic and bi-univalent functions. *Applied Mathematics Letters* **25**(6), 990–994 (2012)
20. Xu, Q.H., Xiao, H.G., Srivastava, H.M.: A certain general subclass of analytic and bi-univalent functions and associated coefficient estimate problems. *Applied Mathematics and Computation* **218**(23), 11461–11465 (2012)

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.



# Combination labeling of joins of fire cracker graph

S. Sriram<sup>1\*</sup> and K. Thirusangu<sup>2</sup>

## Abstract

Let  $G$  be a graph with finite vertices  $p$ , finite edges  $q$ . An injective function is called a combination labelling if such that each edge has the label  $\binom{x}{y}$  or  $\binom{y}{x}$  according as  $x \leq y$  or  $x \geq y$ . A graph with a combination labelling is called combination labelling graph. In this paper we study on the joins of Fire Cracker graph by joining one Fire Cracker graph with similar Fire Cracker graph and prove that it is Combination labelling graph. We further study on some properties connecting the Fire Cracker graph. We further analyse on finding the sum of the joins of Fire Cracker graph. We extend our discussion on Permutation labelling and strong  $k$ -combination labelling of Fire Cracker graph.

## Keywords

Fire Cracker graph, Joins of Fire Cracker graph, Combination Labelling graph, Permutation labelling graph, Strong  $k$ -combination labelling.

## AMS Subject Classification

05C78.

<sup>1</sup>Department of Mathematics, Patrician College of Arts and Science, Adyar, Chennai, India

<sup>2</sup>Department of Mathematics, S.I.V.E.T College, Gowrivakkam, Chennai, India.

\*Corresponding author: <sup>1</sup> [sanksriram@gmail.com](mailto:sanksriram@gmail.com); <sup>2</sup> [kthirusangu@gmail.com](mailto:kthirusangu@gmail.com)

Article History: Received 01 January 2020; Accepted 12 February 2020

©2020 MJM.

## Contents

1	Introduction .....	196
2	Preliminaries .....	196
3	Main Results .....	197
4	Example .....	198
5	Conclusion .....	199
	References .....	199

## 1. Introduction

A graph  $G$  consists of finite vertices and finite edges. Gallian[1] has given a extensive survey on labelling. The beginning of labelings can be associated with Rosa. In studying the different labelling techniques in graph theory we have under stood that combination labelling of graphs, permutation labelling of graphs, parity combination cordial labelling [3,4,5,6,7] is one such labelling which has predominant feature in various scientific problems. In order to utilise such labelling techniques we have here taken the Fire Cracker graph and have significantly added one Fire Cracker graph with another Fire Cracker graph and call it as joins of Fire Cracker graph. This technique helps in attaching as many number of joins of Fire Cracker graph so as to enable us to apply

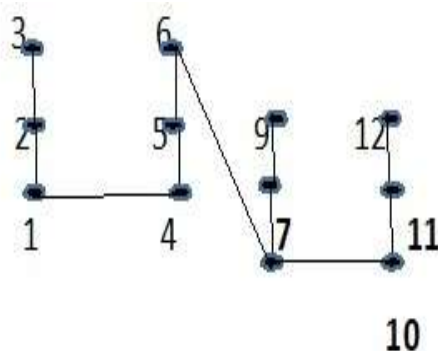
combination labelling and prove that they are combination labelling graph. Further we have analysed on the nature of such labelling by comparing it with the permutation labelling. In further motivated towards Strong  $k$ -combination labelling techniques we have also analysed on the possibility of Fire Cracker graph being a strong  $k$ -combination labelling. Combination Labelling was introduced by Suresh Manjanath Hegde, Sudhakar Shetty[2]. We refer to basic terms and terminology of graphs[8].

## 2. Preliminaries

In this section, we refer to some definitions which will be useful for our discussion in the course of working on the results for this paper.

**Definition 2.1.** A  $(p,q)$  graph  $G=(V,E)$  is said to be a permutation graph if there exists a bijection  $f:V(G)$  to  $1,2,3,\dots,p$  such that the induced edge function  $f:E(G)$  to  $N$  defined for each edge  $xy$  as  $f(x)Pf(y)$  or  $f(y)Pf(x)$  according as  $x > y$  or  $y > x$

**Definition 2.2.** A  $(p,q)$  graph  $G=(V,E)$  is said to be a combination labelling graph if there exists a bijection  $f:V(G)$  to  $1,2,3,\dots,p$  such that the induced edge function  $f:E(G)$  to  $N$  defined for each edge  $xy$  as  $\binom{x}{y}$  or  $\binom{y}{x}$  according as  $x > y$  or  $y > x$



Now let us consider the Fire Cracker graph  $F_{2,2}$  and let us obtain the sum of the edges as explained

We have the Sum  $S = S_1 + S_2 + \binom{f(u_1^1)}{f(v_1^1)}$



Where  $S_1 = \binom{f(u_1^1)}{f(u_2^1)}$  Hence  $S_1 = \binom{2}{1}$

$S_1 = 2$  In a similar computation we have  $S_2 = 4$  and  $\binom{f(u_1^1)}{f(v_1^1)}$  is 3

Hence the sum of the Fire Cracker graph  $F_{2,2}$  as 9 and hence we can prove that Fire Cracker graph  $F_{2,2}$  is strong k-combination labeling graph.

But we can compute that for the joins of Fire Cracker graph  $F_{2,k}$  the combination labelling of graph is not a strong k-combination graph. On computing the sum of the 1- join of Fire Cracker graph  $F_{2,3}$  we find that  $S = 2 + 3 + 5 + 6 + 8 + 10 + 11 + 4 + 120 + 7 = 186$  Hence we can prove that 1-join Fire Cracker  $F_{2,3}$  is not a strong k-combination labelling graph. In general from the result obtained we find that M-join Fire Cracker  $F_{2,2}$  is not a strong k-combination labelling graph.

## 5. Conclusion

We have identified in this paper Fire Cracker graph  $F_{2,k}$  and have joined with set of Fire Cracker graph  $F_{2,k}$  to form a M-Join Fire Cracker graph  $F_{2,k}$  and have proved that it is combination labelling graph and studied on some characteristics of labelling them. We in future we like to identify some more graphs for which we can prove that it is combination labelling and try to find that whether they a strong k-combination graph or not.

## References

- [1] J.A Gallian, *A Dynamic Survey of Graph Labeling*, Twenty Second Edition, 2019
- [2] Suresh Manjanath Hegde, Sudhakar Shetty, Combinatorial Labeling of Graphs, *Applied Mathematic E-Notes*, 6(2006), 251–258.
- [3] R.Ponraj, S.Sathish Narayanan, A.M.S. Ramasamy, Parity Combination Cordial Labeling of Graphs, *Jordan Journal of Mathematics and Statistics*, 8(4)(2015), 293-308.

- [4] R. Ponraj, Rajpal Singh and S.Sathish Narayanan, On parity combination cordial graphs, *Palestine Journal of Mathematics*, 6(1)(2017), 211–218. .
- [5] S. Sriram, R.Govindarajan, Odd Sum Labeling of Joins of H graph, *Journal of Emerging Technologies and Innovative Research*, 6(4)(2019), 811–814.
- [6] S. Sriram and R. Govindarajan, Harmonic Mean Labeling of Joins of Square of Path Graph, *International Journal of Research in Advent Technology*, 7(3)(2019), 1–12.
- [7] S.Sriram and R.Govindarajan, K.Thirusangu, Pell Labeling of Joins of Square of Path graph, *International Journal of Engineering and Advanced Techonology*, 9(5)(2019), 12–19.
- [8] J.Gross and J.Yellen, *Handbook of Graph Theory*, CRC Press, 2004.

\*\*\*\*\*

ISSN(P):2319 – 3786

Malaya Journal of Matematik

ISSN(O):2321 – 5666

\*\*\*\*\*





# A study on M-joins of super mean labeling of some digital numbers

S. Sriram<sup>1\*</sup> and K. Thirusangu<sup>2</sup>

## Abstract

Let  $G$  be a graph and define an injective function  $f: V(G) \rightarrow \{1, 2, 3, \dots, p\}$ . Now for suppose for each edge we assign the labels such that  $E(G) \rightarrow \{1, 2, 3, \dots, p + q\}$  the induced edge  $f^*$  is  $f^*(e) = \frac{f(u) + f(v)}{2}$  if  $f(u) + f(v)$  is even and  $f^*(e) = \frac{f(u) + f(v) + 1}{2}$  if  $f(u) + f(v)$  is odd then  $f$  is called super mean labelling of graph. In this paper we wish to study the super mean labelling of some of digital numbers 2, 5, 7 and also intend to study on the M-joins of Super mean labelling of digital numbers 2, 5, 7 and extend our study to prove some characteristics property of M-Joins of Super mean labelling of digital numbers 2, 5, 7.

## Keywords

Super Mean Labeling, Digital numbers, Digital labelling of graphs, Joins of Super Mean Labeling of Digital numbers.

## AMS Subject Classification

05C78.

<sup>1</sup> Department of Mathematics, Patrician College of Arts and Science, Adyar- 600020, Chennai, Tamil Nadu, India.

<sup>2</sup> Department of Mathematics, S.I.V.E.T College, Gowrivakkam-600073, Chennai, Tamil Nadu, India.

\*Corresponding author: <sup>1</sup> [sanksriram@gmail.com](mailto:sanksriram@gmail.com); <sup>2</sup> [kthirusangu@gmail.com](mailto:kthirusangu@gmail.com)

Article History: Received 10 February 2020; Accepted 18 May 2020

©2020 MJM.

## Contents

1	Introduction .....	679
2	Preliminaries .....	679
3	Main Results .....	680
4	Conclusion .....	684
	References .....	684

## 1. Introduction

We consider a finite simple graph with set of vertices and edges for our discussion and follow the notation and basic concepts[2]. In the discussion of labelling of graphs by different labelling techniques we are motivated and found that there is a quite significance with the Super Mean Labeling of graphs with that of the technological improvements related to transmitting computer signals. Hence we consider here the understanding of Super Mean labelling of graphs towards the digital numbers . Super Mean labelling is introduced by P.Jeyanthi, R.Ponraj and D.Ramya [3] and further contribution made in various papers[4][5][6]. We consider the literary survey based on graphs given by J.A.Gallian [1]. Digital numbers are the one which in remote sensing systems assign

pixel in the form of binary integer. We here consider the digital numbers 2, 5, 7 and tried to label them and prove that they are Super Mean labelling graphs. In continuation we study on the joins of the digital numbers 2, 5, 7 and extent the same towards M-Joins of the digital numbers 2, 5, 7.

## 2. Preliminaries

**Definition 2.1.** We define an injective function  $f: V(G) \rightarrow \{1, 2, 3, \dots, p\}$ . Now for suppose for each edge we assign the labels such that  $E(G) \rightarrow \{1, 2, 3, \dots, p + q\}$  the induced edge  $f^*$  is  $f^*(e) = \frac{f(u) + f(v)}{2}$  if  $f(u) + f(v)$  is even and  $f^*(e) = \frac{f(u) + f(v) + 1}{2}$  if  $f(u) + f(v)$  is odd then  $f$  is called super mean labelling of graph.

**Definition 2.2.** The digital number 2 is defined as a graph consisting of 6 vertices and 5 edges with the following structure

- [5] S. Sriram and R. Govindarajan, Harmonic Mean Labeling of Joins of Square of Path Graph, *International Journal of Research in Advent Technology*, 7(3)(2019), 1–10.
- [6] S. Sriram, R. Govindarajan and K. Thirusangu, Pell Labeling of Joins of Square of Path Graph, *International Journal of Engineering and Advanced Technology*, 9(3)(2019), 2249–8958.

\*\*\*\*\*

ISSN(P):2319 – 3786

Malaya Journal of Matematik

ISSN(O):2321 – 5666

\*\*\*\*\*





# AIP

## Conference Proceedings

HOME

BROWSE

MORE ▼

[Home](#) > [AIP Conference Proceedings](#) > [Volume 2282, Issue 1](#) > [10.1063/5.0028270](#)

&lt; PREV

NEXT &gt;

 No Access

Published Online: 20 October 2020

# A study on M-Joins of super mean labeling on some digital alphabets

AIP Conference Proceedings **2282**, 020016 (2020); <https://doi.org/10.1063/5.0028270>

S. Sriram<sup>1)</sup> and K. Thirusangu<sup>2)</sup>

Hide Affiliations

<sup>1)</sup>Assistant Professor Department of Mathematics Patrician College of Arts and Science Adyar Chennai-20 India

<sup>2)</sup>Associate Professor Department of Mathematics SIVET College Chennai India

View Contributors



PDF



E-READER

## ABSTRACT

Let  $G$  be a  $(p, q)$  graph and define an injective function  $f: V(G) \rightarrow \{1, 2, 3 \dots p+q\}$ . Now for suppose for each edge we assign the labels such that  $E(G) \rightarrow \{1, 2, 3 \dots p+q\}$  the induced edge  $f^*$  is  $f^* = \frac{f(u)+f(v)}{2}$  if  $f(u) + f(v)$  is even and  $f^* = \frac{f(u)+f(v)+1}{2}$  if  $f(u) + f(v)$  is odd then  $f$  is called super mean labelling of graph. In this paper we wish to study the super mean labelling of some of digital alphabets C,G,L,M,N,S,V,W and extend the study towards the M-Joins of digital alphabets C,G,L,M,N,S,V,W and study some characteristics property related to them.

## SELECT YOUR ACCESS

### INDIVIDUAL ACCESS

If you have an individual subscription, a subscription provided by one of AIP's Member Societies, have claimed access to a Conference Proceeding, or have made an individual purchase, sign in below.

Username:

Password

☐ Remember me

LOG IN

[Forgot password?](#)

### INSTITUTIONAL ACCESS



PDF



E-READER

Access through

# KALĀ

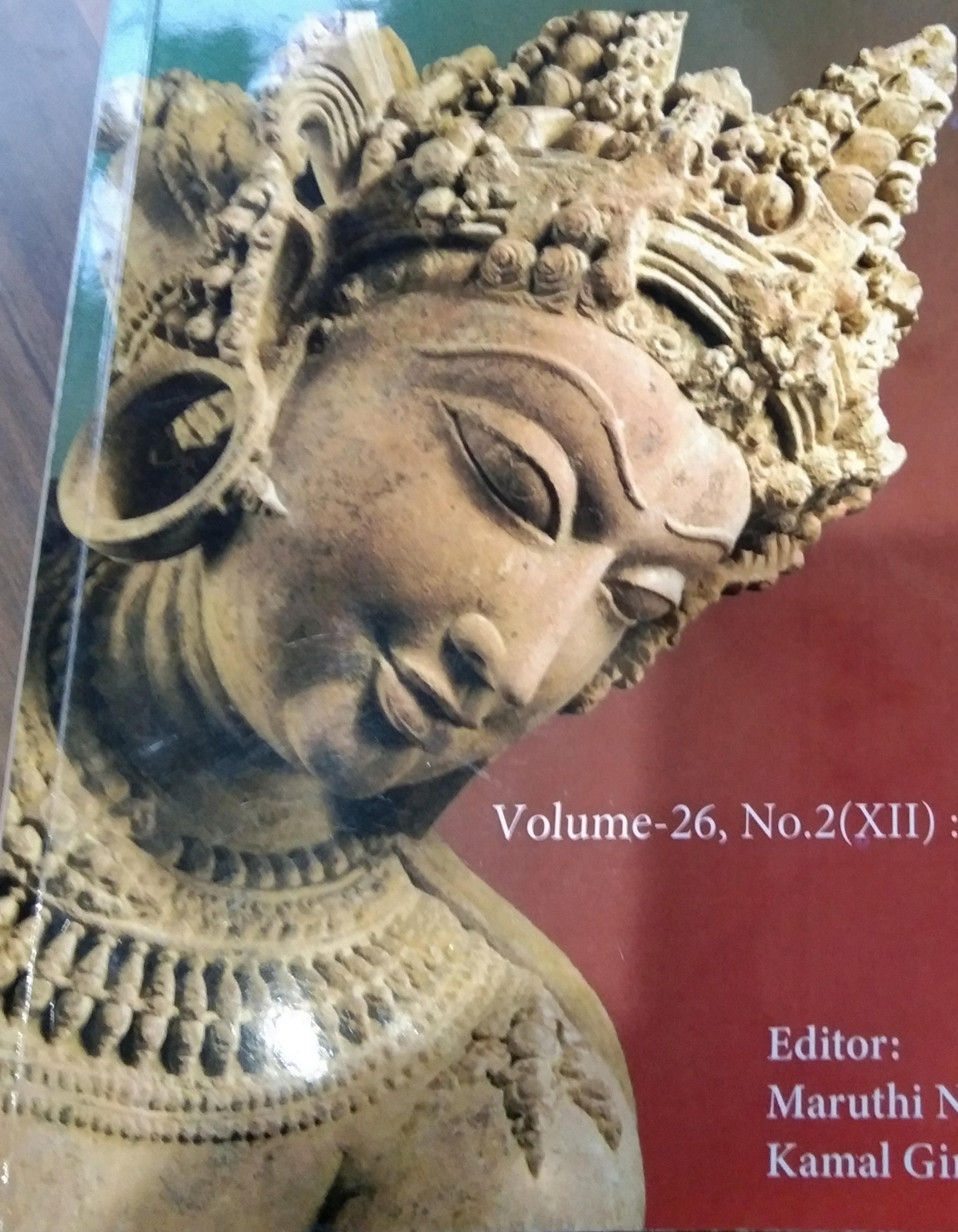
Journal of Indian Art History Congress

ISSN : 0975-7945

# KALĀ

Volume-26, No.2(XII) : 2020-2021

Editor:  
Maruthi Nandan Tiwari  
Kamal Giri



## **TOWARDS SUSTAINABILITY: A CASE STUDY ON UNDERSTANDING THE FACTORS AND STRATEGIES IN BUILDING A SUSTAINABLE LIVELIHOOD FOR MIGRANT WORKERS IN PUDUCHERRY.**

**Leanne Maria**

Assistant Professor, Department of Social Work, Patrician College of Arts & Science, Chennai.

### **ABSTRACT**

The Welfare of the citizen is of paramount importance in any civilized society. The marginalized section of our society form around 68% of our population, of which approximately 48% are Migrant workers. The clear outcome of the nationwide Lockdown in the face of COVID 19, has been the Exodus of Migrants who had to flee as they were denied any sustenance from civilized society. Thus the urgent need to provide sustainable livelihood to the migrant worker arises. The factors that pushed Migrants to take the hazardous journey back home range from starvation, lack of housing, basic amenities, social isolation and the fear of being discarded as unwanted. Understanding these threats to Migrant workers could have helped the State and judiciary in protecting these individuals by using existing policies and legislations. This lack of real understanding of the situation, begs the question of the need for a better approach in Migrant Laborers' Welfare.

This paper is a qualitative research utilizing the Sustainable livelihood Framework as given by the Department of International Development (UK). It explores the use of the framework to analyze the factors of livelihood through Typical Case Study and then seeks to provide Livelihood Strategies to be followed by the individual in creating a sustainable living for himself. The study will also analyze how the State can implement existing schemes to make them visible and reliable sources of sustenance not only for a daily basis but to create a secure future for Migrant Laborers and their families.

### **INTRODUCTION**

Nationwide Lockdown that was imposed due to the COVID 19 Pandemic highlighted the tragic and unforeseen problems faced by various sections of our society. As the human tragedy of life unraveled, the plight of Migrant Workers came to the front. The Migrant Worker is the pivot on which economies rise, industries thrive and urban growth assured. However urban environment does not in turn assure nor does it encourage the growth and progress of the Migrants. This makes them non-entities who will always remain at the periphery of our society. They become victims of exploitation, human trafficking, denied medical facilities, social exclusion, denial of education for their children are only few of the numerous woes. The Pandemic has forced migrants to flee from their place of work, thereby rendering them penniless and hunger stricken, ostracized by their very employers, by society and the Government. They were forgotten and diminished and many died on their hazardous journey back home. A total lack of any backup system, any way of sustenance has brought to collective conscience, the urgent need of providing a sustainable livelihood for migrant workers. The focus of this paper is to analyze and gain an understanding on the interplay of various factors in the life and welfare of Migrants as given in the Sustainable Livelihood Framework (DFID). It aims to understand the different vulnerabilities they face and how this is an impediment to the achievement of a minimum standard of living. Furthermore it seeks to study the role of the State in the implementation of Welfare Policies and to understand why these policies have not been able to achieve the intended outcome. The policies and strategies for implementation could be the key to bettering Migrant Livelihood and this could ultimately lead to the reintegration of Migrants into Society.

### **OBJECTIVES OF THE STUDY**

...the Sustainable Livelihood Framework.

# KALĀ

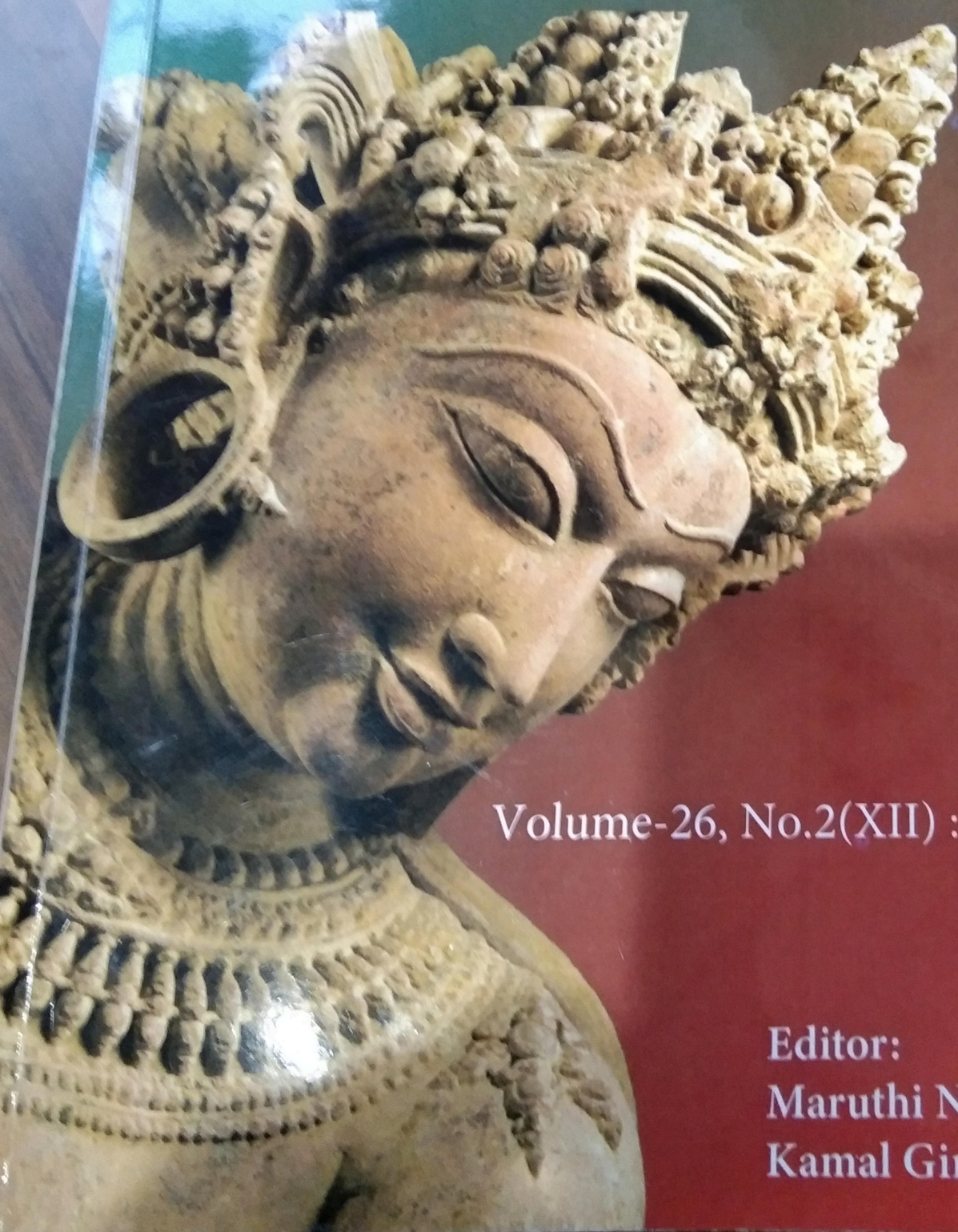
Journal of Indian Art History Congress

ISSN : 0975-7945

# KALĀ

Volume-26, No.2(XII) : 2020-2021

Editor:  
Maruthi Nandan Tiwari  
Kamal Giri



## A STUDY ON EFFECTIVENESS OF ONLINE CLASSES CONDUCTED DURING COVID 19

Vinola Sharobell

Assistant Professor

Department of Social Work

Patrician College of Arts & Science

### ABSTRACT

The Pandemic situation of recent time had brought many changes in day today life of the humans. It is not even possible to think that essential field will go under such a drastic change. But that has happened. We are now in a dynamite time where we don't know when we will return to our normal life. But still life has to move on and since we are getting ourselves adopted to many changes and we are also developing ourselves. This study also shows that change alone is permanent and nothing can stop the changes. We have to develop our self with the change in technology and development. We never taught that there arises a situation where Doctor treats the patients through video call, Companies finalise Projects over Google and Zoom Meet, Schools and College will conduct class through Google meet and Google Class room etc. But this is our situation now. We all have to adopt the developed technologies at least during this Pandemic situation.

It is undeniable that online education provides ample of benefits to young learners. Nevertheless, there are also many negative implications from online education. This study examines the implications of online education among students especially in a private higher learning institution and its effect. The purpose of this paper is to understand the effectiveness on online classes conducted during Covid 19. If this change of online classes was introduced during normal situation there could have being many opposition from the Public but now we are left with no option. And this has to happen. The Study highlights on the effectiveness on online classes and also suggest various ways and methods on which it can be improved.

**Keywords :** *online classes, Covid pandemic, online Education*

### INTRODUCTION

Time and Tide waits for none. Time once gone is cannot be taken back. Hence time plays a Major role in everyone's life especially in student's life. As we all are aware of this pandemic situation and the importance of Social Distancing, many claim it is not right time to open schools and colleges.

But still the students have to study and the staff has to complete the portion for the forth coming year, the only way to do is to conduct online classes. The culture of online classes is really new for many of the students especially school and college students. This is not a permanent solution but this is indeed a best temporary solution to make the students cope up with their academics. Many teachers are taking an effort to make this online classes a effective one. The way of handling the classes are changed. The teachers make a good power point presentation and present it to the students and make them understand in a more effective manner. These online classes help the students not to slip out of their academics. Some colleges have also arranged online internship training for the students to experience a near job experience in this pandemic situation. This helps the students to learn their subjects in a more effective manner.

Online training and online classes help the people to improve their ability and perform better in all aspects. This online training breaks all the barriers in this pandemic situation and helps the people to achieve their level of productivity. Though there are many hindrance in conducting online classes both students and the Children are giving the best to keep the learning process going on. Both teachers and students are coping up with the modern technologies though they face many problems they are left without no option.

# KALĀ

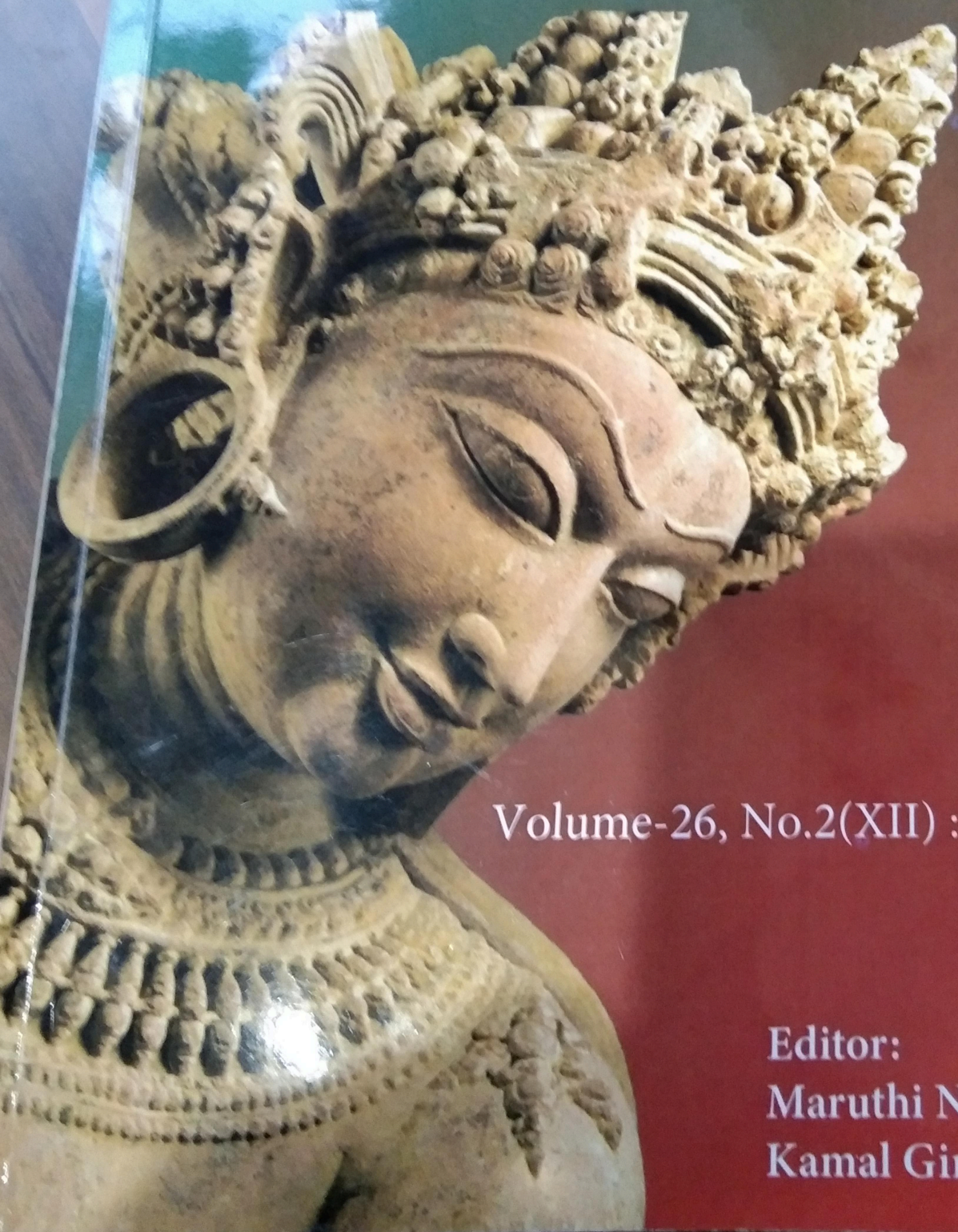
Journal of Indian Art History Congress

ISSN : 0975-7945

# KALĀ

Volume-26, No.2(XII) : 2020-2021

Editor:  
Maruthi Nandan Tiwari  
Kamal Giri



## SAFETY LEVEL OF MIGRANT WORKERS IN TAMIL NADU

E. REENA RACHEL

Assistant Professor

Department of Social Work Patrician College of Arts and Science

### ABSTRACT

Trust deficit among poor people has been quite visible during the Covid-19 outbreak. The painful visuals of helpless poor people going back to their hometowns and villages have raised questions about the government's timeliness in providing adequate support to migrant workers. Many migrant workers have left cities in the absence of food and cash flow into the household. More than 90% of the workforce is active in the unorganised sector in India without any permanent work or social security. Most of them do not have identity proofs, which can establish their work status. This study helps to explore the safety level of migrant employees in Tamil Nadu.

**Keywords:** Safety, workforce, unorganised sector, social security.

### INTRODUCTION

Migrant workers are among the most vulnerable sections of the society in times of both normalcy and emergency. Struggling for a living, they are often exploited and forced to work and live in deplorable conditions, employers, contractors and the policymakers often overlook their health and safety risks.

Despite positive outcomes of migration, the process of migration can be very challenging for both male and female migrant workers, whether it is voluntary or distress (forced) migration.

The challenge is that migrants usually form a class of invisible workers. They work in poor conditions, with no access to government services and schemes, which are usually available to other workers. There are different risks in source and destination areas. Needs of family members, including infants, children, adolescents and elderly who accompany migrant workers or are left behind in source areas also need to be addressed.

Potentially negative costs and risks for migrant workers that need to be mitigated include:

- Lack of awareness among migrants about their rights as 'workers' and as 'migrant workers'
- Unscrupulous labour agents who coerce workers and do not pay minimum wages as stipulated by law
- Many migrants, especially young girls and women, are deceived and trafficked
- Workers who engage in seasonal work, such as in brick kilns or agriculture, are often trapped in a situation of debt and bondage
- Enforcement of laws and protection of rights of workers during migration and at worksites
- Poor and unsafe working and living conditions, lack of occupational health and safety
- Possibility of violence at the workplace and sexual harassment of women
- Greater threat of nutritional diseases, occupational illnesses, communicable diseases, alcoholism, HIV and AIDS amongst migrant populations
- Exclusion or lack of access to public services and social protection for migrants due to regulatory and/or administrative procedures in destination states
- Lack of inclusion of migrants in the socio-political dynamics of the city, lack of participation in the political process at the local level and poor integration into social structures such as self-help groups

# KALĀ

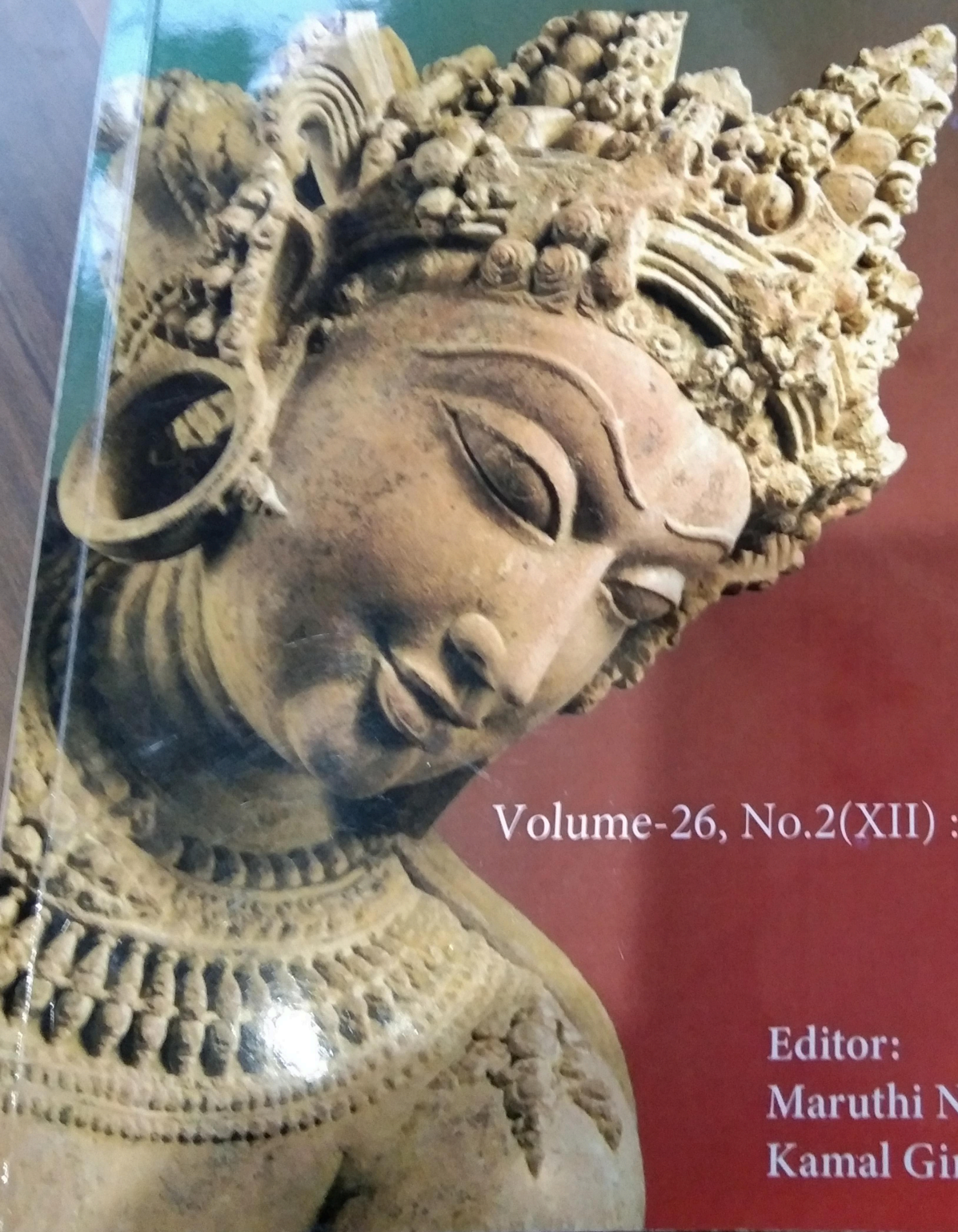
Journal of Indian Art History Congress

ISSN : 0975-7945

# KALĀ

Volume-26, No.2(XII) : 2020-2021

Editor:  
Maruthi Nandan Tiwari  
Kamal Giri



## WHERE ARE WE HEADING?

Justus Wallis C J

Assistant Professor, Department of Social Work, Patrician College of Arts and Science

Giffin K Jose

Sr.Coworker – Family strengthening programme (SOSCV, Gujarat)

Evangeline Joy Kiruba C J

Freelancer, Chennai

### ABSTRACT

Migration is the most common phrase circulating world-wide at present. Migration involves the movement of people, animal or an object from one place to another. Human migration takes place usually in high numbers. Animal migration takes place according to the seasonal variations and food availability. According to UN, migration is defined as "as any person who is moving or has moved across an international border or within a State away from his/her habitual place of residence, regardless of (1) the person's legal status; (2) whether the movement is voluntary or involuntary; (3) what the causes for the movement are; or (4) what the length of the stay is." People migrate from one place to another starting on a scale of state to state or country to country or even from continent to continent. People migrate as individuals or families or groups. In India, human migration is quite high in recent years due to urbanization. Urbanization happens because of drought and attraction towards the mega cities. Today, millions of unskilled migrant workers relocate themselves for their livelihood. Last March 2020 was an unforgettable month for those migrant workers. When the Prime Minister of India announced lockdown due to Covid 19, those millions of workers were puzzled and left all alone without any hopes on how they will return to their native state or homes. Thus, it has created a huge chaos in their lives and left them helpless. This Paper will deal the situation of the migrant workers in detail.

**Keywords :** Human Migration, Lockdown challenges, Covid Pandemic

### INTRODUCTION

Migration is the most common phrase circulating world-wide at present. Migration involves the movement of people, animal or an object from one place to another. Usually human migration takes place in a high number. Even animal migration takes places according to the seasonal variations and food availability. Here we are not going to discuss about the animal migration, but we will discuss elaborately on human migration.

According to UN, migration is defined as "as any person who is moving or has moved across an international border within a State away from his/her habitual place of residence, regardless of (1) the person's legal status; (2) whether the movement is voluntary or involuntary; (3) what the causes for the movement are; or (4) what the length of the stay is."

Human migration takes places either temporarily or permanently depending upon the situation and livelihood. People migrate from one place to another say from state to state or from one country to another country or in extreme cases even from continent to continent. People migrate as an individual or as families or in groups. Four major forms of migration occur; they are invasion, conquest, colonization and emigration or immigration.

But at present scenario, human migration takes place because of war, famine/drought, urbanization, livelihood such as jobs. In India, human migration is quite high in recent years due to urbanization. Urbanization began because of attraction towards building and living in mega cities.

famine but today people migrate towards city in order to earn. When compared

# KALĀ

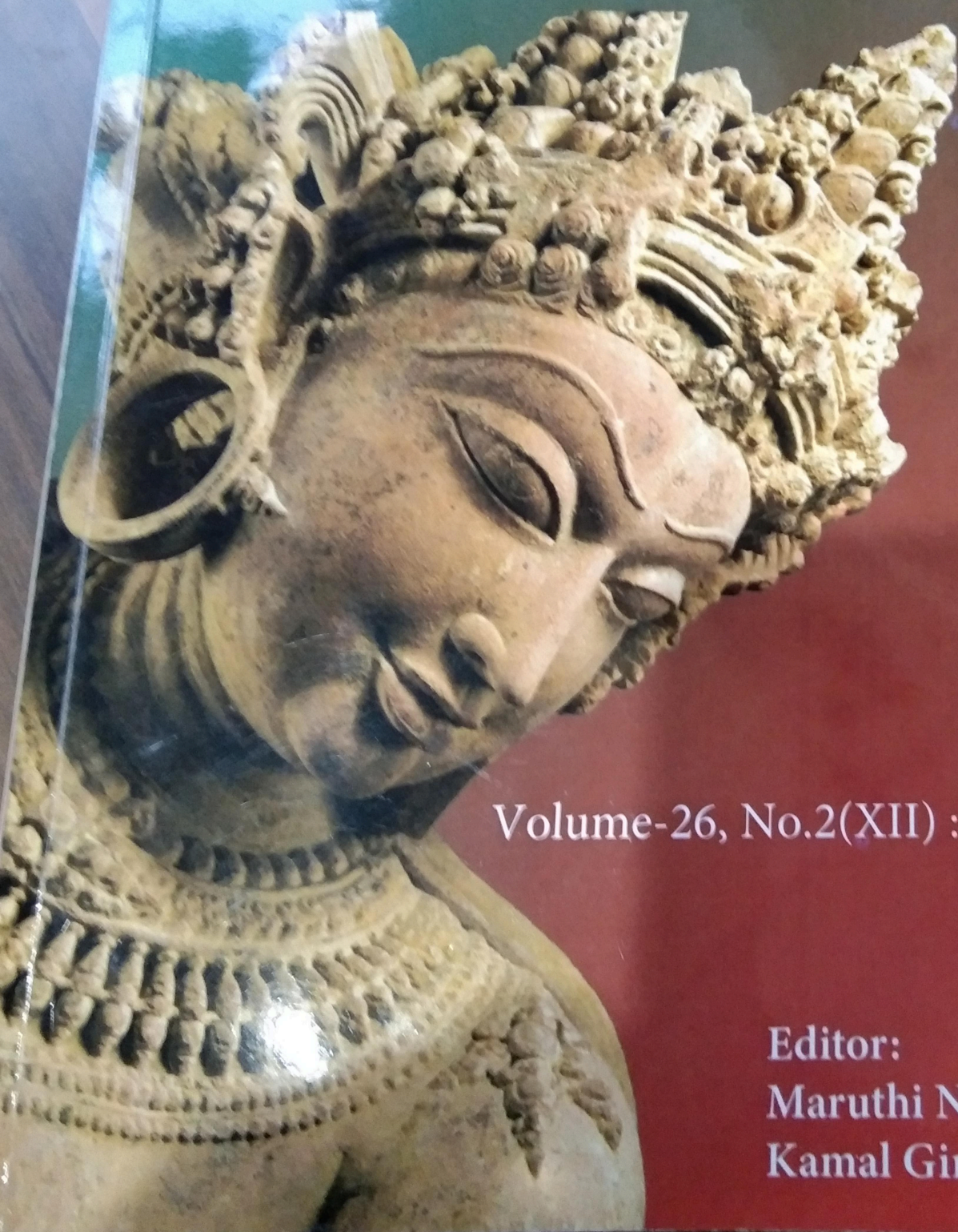
Journal of Indian Art History Congress

ISSN : 0975-7945

# KALĀ

Volume-26, No.2(XII) : 2020-2021

Editor:  
Maruthi Nandan Tiwari  
Kamal Giri



## SEXUAL HARASSMENT OF WOMEN EMPLOYEES AT WORKPLACE

Priya. P

MSW, Department of Social Work, Patrician College of Arts and Science, Adyar, Chennai

Dr. Sindhu Sivan

Head, Department of Social Work, Patrician College of Arts and Science, Adyar, Chennai

### ABSTRACT

Sexual Harassment is a subject of concern and an area of apprehension to the present era. The sexual harassment marks in violation of the basic fundamental rights of women especially right to equality under article 14 & 15 of the Indian constitution and her right to life and to live with dignity under article 21 of the constitution. The current study showed that still sexual harassment is taking place in work places. The present study try to highlight the experiences of sexual harassment of women employees in industrial sectors of Chennai city.

**Keywords :** Sexual Harassment, women Employees , workplace discrimination

### I. INTRODUCTION

The term harassment includes any unwanted physical or verbal behaviour that offends or humiliates. It is commonly understood as behaviour that demeans, embarrasses a person, and it is characteristically identified by its unlikelihood in terms of social and moral reasonableness. Sexual harassment in India is termed as: unwelcome sexual gesture or behaviour whether directly or indirectly as sexually coloured remarks, physical contact and advances; showing pornography; a demand or request for sexual favours; any other unwelcome physical, verbal/non-verbal conduct being sexual in nature. According to India's constitution, sexual harassment infringes the fundamental right of a woman to gender equality under Article 14 of the Constitution of India and her right to life and live with dignity under Article 21 of the Constitution. Types of harassment's are. Sexual harassment, Physical harassment, Personal harassment, Discriminating harassment, Psychological harassment, cyber bulling harassment, 3<sup>rd</sup> party harassment.

According to the sexual harassment act (2013), A **workplace** is defined as "Any place visited by the employee arising out of or during the course of employment, including transportation provided by the employer for undertaking such a journey". As per this definition, a workplace covers both organized and un-organised sectors. It also includes all workplaces whether owned by Indian or foreign company having a place of work in India. "Sexual harassment" includes anyone or more of the following unwelcome acts or behaviour namely,

Sexual harassment results in the violation of the fundamental rights of a woman to equality as per **Articles 14 and 15** and her right to live with dignity as mentioned under **Article 21** of the constitution, the government of India enacted the sexual harassment of women at workplace. The act is an extension of **vishaka guidelines**, acknowledged sexual harassment at the workplace as a human rights violation.

The bill was passed by the Rajya Sabha on 26<sup>th</sup> February 2013. The act came into force on **9<sup>th</sup> December 2013**. It was reported by the ILO that very few Indian employers were complaint to this statute. It is also known as **POSH ACT (prevention of sexual harassment)**, to create and maintain safe work environment, free from sexual harassment and discrimination for all its employees.

### II. SIGNIFICANCE OF THE STUDY

Sexual harassment is considered as an employment discrimination among the men and women that consists of verbal and physical abuse at the workplace. It creates discriminatory, unfair, thriving in atmosphere of threat, terror

# KALĀ

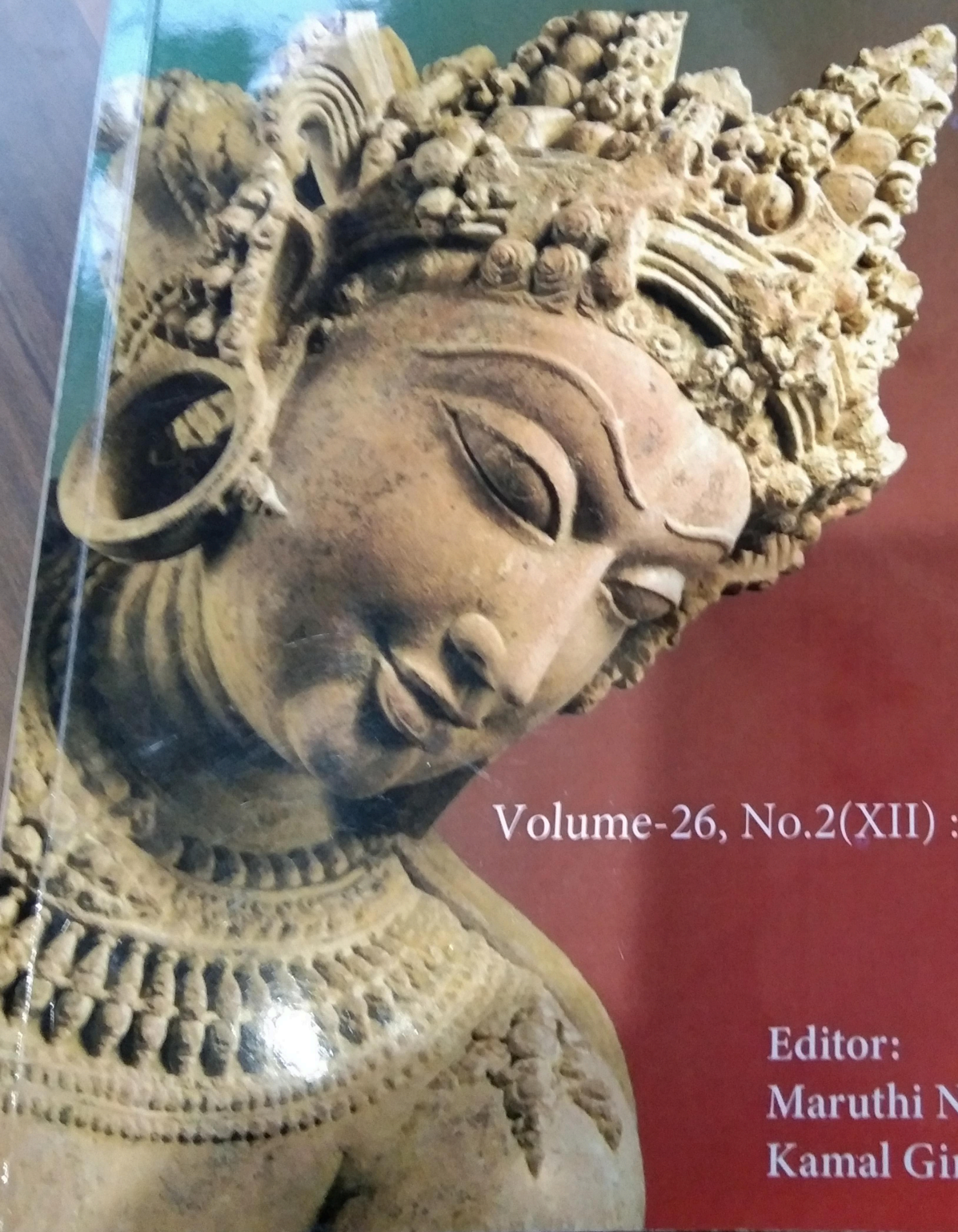
Journal of Indian Art History Congress

ISSN : 0975-7945

# KALĀ

Volume-26, No.2(XII) : 2020-2021

Editor:  
Maruthi Nandan Tiwari  
Kamal Giri



## THE ATTITUDE OF CHANGE

Divya.J

Assistant Professor

Department of Social Work

Patrician College of Arts & Science

### ABSTRACT

Attitude is a way of thinking and feeling. If one needs an attitude to create change, that has to start from oneself- inside out pattern. Oprah Winfrey rightly points out that, "The greatest discovery of all time is that a person can change his future by merely changing his attitude." A change created in self, works on the principle of ripple effect, where when an object is dropped into the water, the ever expanding ripples move across the surrounding environment, an effect from an initial minor state moves outwards incrementally. With this understanding a social worker who is identified as change agent, needs to adorn an attitude of change among people and situations

**Keywords:** Change, attitude, thinking, feeling, behavior, professionalism, social worker

Social work is a unique profession where each social worker not only actively engages in the process of change in different individuals and environments but also constantly works on his personal values, beliefs and attitudes to mould him into a better professional. Social work as a profession values integrity, individual dignity, compassionate service, social justice and human relationships. These fundamental values are a part of the six core values specified by the National Association of Social Workers (NASW). These are inherent to the efficacy of a social worker.

### SOCIAL CONSCIOUSNESS

These core values of a social worker give a heightened consciousness of the different social contexts he or she is put in. This consciousness can be understood through C.H.Cooley as the 'I' and the 'We' consciousness. The 'I' consciousness is the self-consciousness. The 'We' consciousness can be called as the other consciousness or awareness of different individuals and the different types of society. Both these consciousness are not distinct entities. An individual understands himself or herself in reference to the group/environment and individuals in a social context are understood in reference to oneself.

The 'I' and the 'We' consciousness go together and it is important to be mindful of consciousness as a more or less complex personal and social whole. This *reflective social consciousness* is a result of a constant interaction between the two consciousnesses, which is a wide awake state of mind. It is a sense of one's relation to other persons and other persons in relation to one another.

### INTROSPECTION

With the idea of reflective social consciousness, a process of self-reflection, in other words, introspection is a powerful tool in each social worker's hands. This reflection or introspection encompasses both personal self-reflection and professional self-reflection. It is imperative to reevaluate both

- Our professional form – purpose and intent
- Our personal form – attitudes, values and beliefs.

This dyadic introspection as a wholesome concept is the vital key than two separate aspects of professional (function) and personal (form) introspection. The holistic perspective alone can keep at bay personal and professional biases, which often can overlap.

The dyadic introspection helps in examination of motives and intentions to be social workers. The examination or observation of one's own mental and emotional processes help us to identify our blind, hidden and closed parts of

# KALĀ

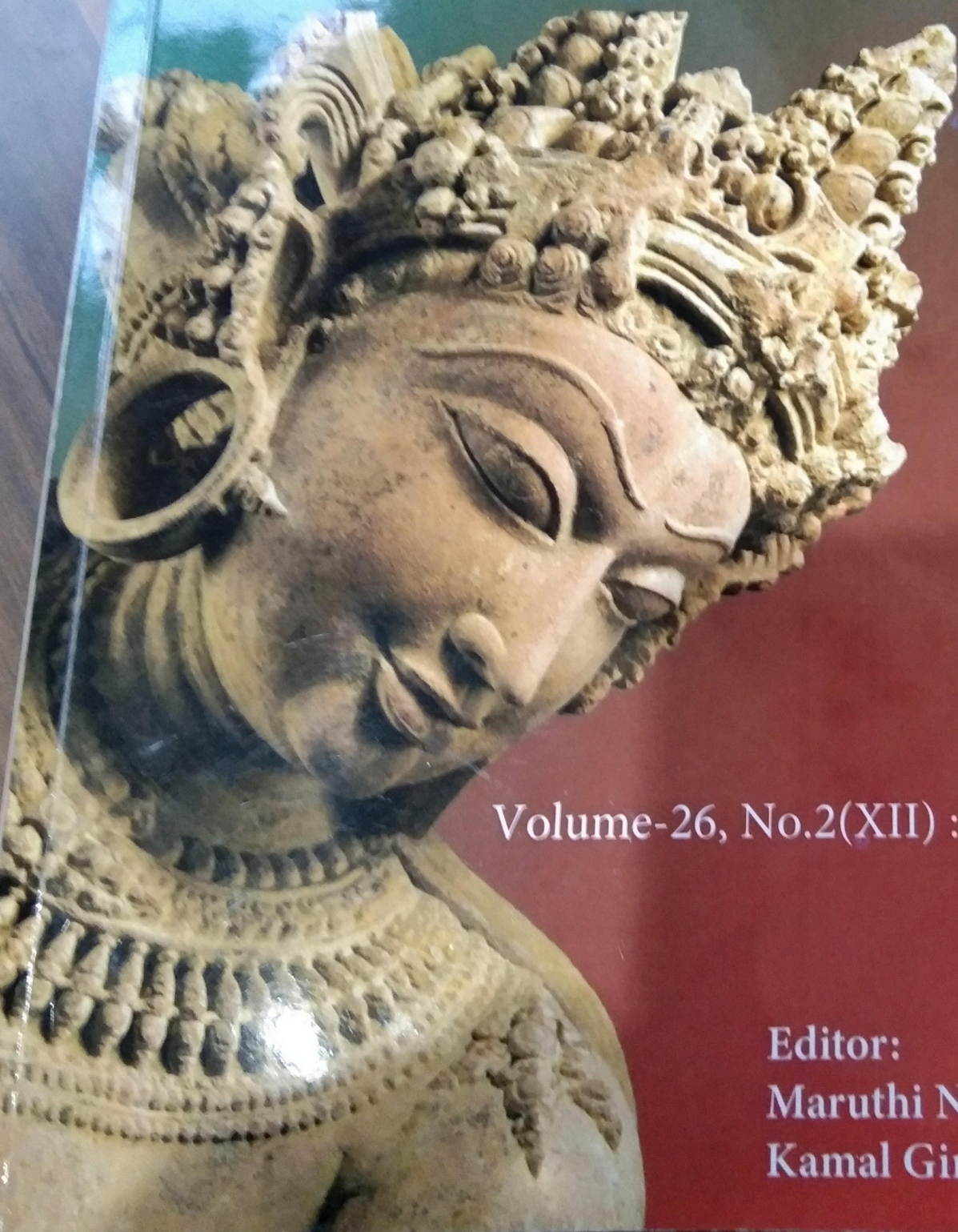
Journal of Indian Art History Congress

ISSN : 0975-7945

# KALĀ

Volume-26, No.2(XII) : 2020-2021

Editor:  
Maruthi Nandan Tiwari  
Kamal Giri



## STUDY ON THE LEVEL OF ASSERTIVENESS IN COLLEGE STUDENTS

N. Vishal

MSW Student, Patrician College of Arts and Science, Chennai - 20

N. Uma

Private Practitioner, Chennai

J. Divya

Assistant Professor, Department of Social Work,  
Patrician College of Arts and Science, Chennai - 20

### ABSTRACT

Assertiveness is the quality of being self-assured, confident and the ability with which you think, act, react without being emotional and judgmental. The aim of the study is to assess the assertiveness of college students the result of which may facilitate to decide if training programs on assertiveness will be helpful and the objectives are to understand the socio-demographic variables, to find out the level of assertiveness of the respondents and the relationships between the socio-demographic variables and the assertiveness level. Descriptive research design was followed. Probability sampling technique was used to collect data. A sample of 55 college students at an age range of 18 to 26 years was used for the study. Socio-demographic variables of age, gender and education stream were taken into consideration. Rathus Assertiveness Schedule (RAS) was used for data collection purpose. It was circulated in the digital form to college students and the feedback was collected digitally. The hypothesis was that there is no significant difference in the level of assertiveness between the males and females in the sample population and that the level of assertiveness increases with age of the students. The conclusion was that majority had moderate level in assertiveness with which we may assume that a training program on assertiveness will help to enhance the assertiveness from a moderate level to high level, which will empower the student to lead a successful professional and personal life.

**Key Words:** Assertiveness, college, students, passive, aggressive, education

### INTRODUCTION

Assertiveness is the quality of being self-assured, confident and the ability with which you think, act, and react without being emotional and judgmental. It is a mode of self-expression, a mode of effective communication without being passive and at the same time non-aggressive.

Joseph Wolpe (1958) defined assertive behavior as, "the proper expression of any emotion other than anxiety towards another person". Andrew Salter (1961) introduced Assertiveness Training (AT) and it was popularized by Joseph Wolpe.

Assertiveness is a skill that *can be learnt* and helps one to express his/her wants and needs. It helps to express one's opinion without hurting others, respecting their sentiments and opinions. Assertive people allow themselves the freedom of self-expression and have a high level of feel-good factor and never suffer from cognitive dissonance. They know the art of standing up for themselves without causing inconvenience to others. They are personally aware of their own abilities and weaknesses and so of the others.

Assertive people are good leaders because they are willing to take responsibility and at the same time give freedom of expression to others as well. As opposed to assertiveness are Passive and Aggressive behaviors.

### PASSIVE BEHAVIOR:

...feelings in an attempt to keep others

# KALĀ

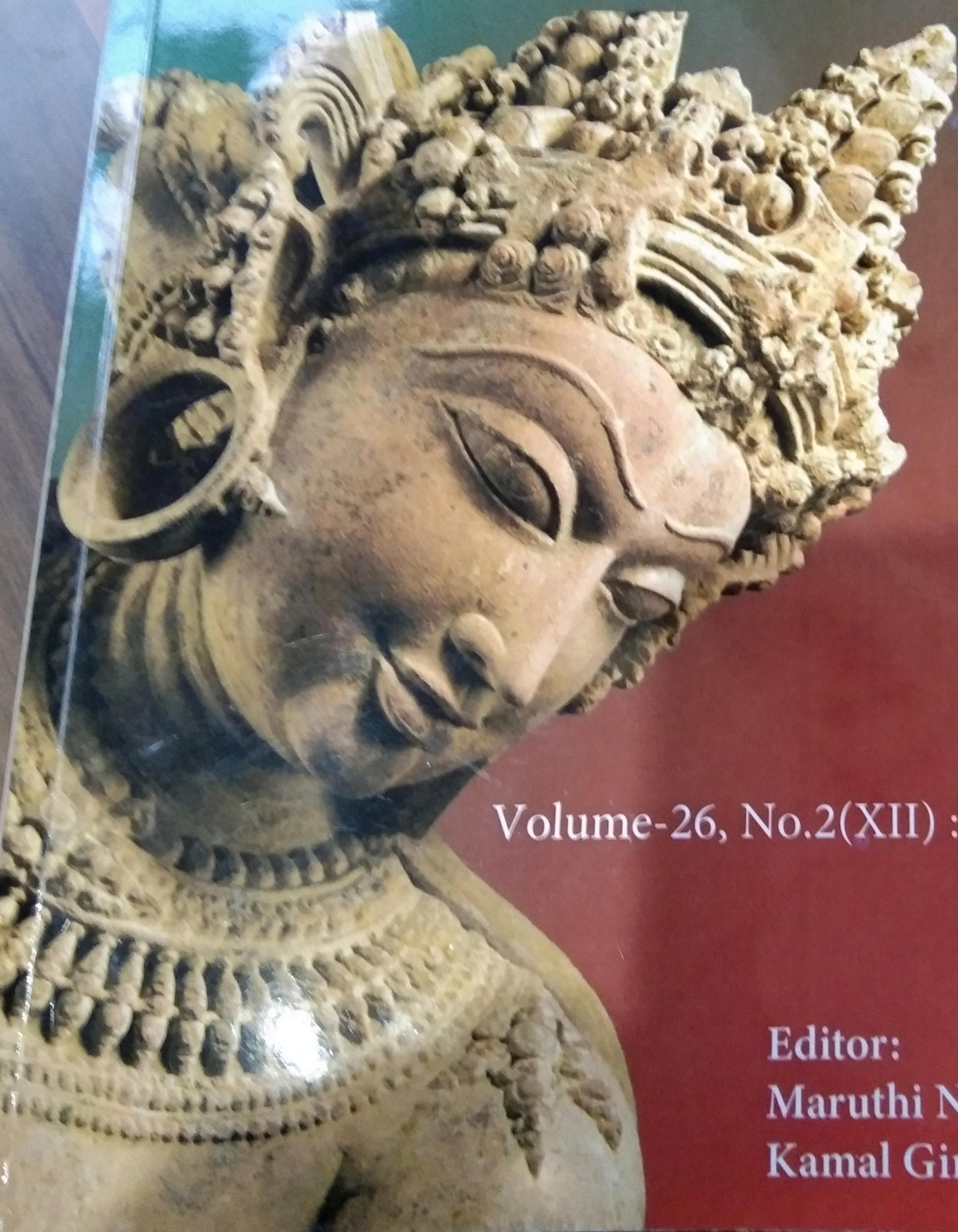
Journal of Indian Art History Congress

ISSN : 0975-7945

# KALĀ

Volume-26, No.2(XII) : 2020-2021

Editor:  
Maruthi Nandan Tiwari  
Kamal Giri



## HOMOSEXUALITY: A MODERN MENTAL HEALTH CRISIS

X. Rashmitha Iruthaya Varshini

Student, MSW, Department of Social Work, Patrician College of Arts and Science.

Divya. J

Assistant Professor, Department of Social Work, Patrician College of Arts and Science.

### ABSTRACT

Homosexuality has been seen under different shades of light. Some consider it as the perfection of love, some other as the worst crime or a mental health crisis while the remaining consider it as a breach of human evolution. Family is considered the safe haven where one can be their true self. But the struggle for gender identity among the homosexuals starts right from their homes. Societal hostility for homosexuals along with a deep-rooted idea of homophobia makes their life tragic. Urbanisation is at its peak with new technological advancements, industrialisation, transiting people from village to cities. But it is impossible to predict the general mindset of people to the emerging changes with respect to human sexuality and gender identities. Homosexuality can be considered one such tabooed topic, that was well hidden phenomenon in history, emerging gradually, especially in the present urban society. This research intends to examine how urban people of different generations perceive homosexuality. Respondents from generations X, Y and Z were considered for the research. Disproportionate stratified sampling to facilitate between-strata analyses was used by the researcher. A survey was conducted using self-administered questionnaire consisting of both open and close ended questions using Development of Attitudes Toward Homosexuality Scale for Indians. The results from the analysis of the questionnaire proved that there was acceptance among the Z generation about homosexuality when compared to the other two generations.

**Keywords:** *Homosexuality, Gender identity, Urban society, Homophobia, X Y Z Generations.*

### INTRODUCTION

India is a country of diverse cultures and traditions with distinct gender roles. Gender can be defined as the roles, behaviours, activities, attributes and opportunities that any society considers appropriate for girls and boys, and women and men. Every gendered individual tends to have specific gender identity and sexual orientation. Gender identity is how a person sees themselves from introspection and personal experience with various genders. This experience in turn shapes the individual's pattern of sexual or romantic attraction - sexual orientation. These attractions are generally categorised into heterosexuality, homosexuality, bisexuality and asexuality.

The sexual attraction between opposite sex or gender, usually between male and female, is considered heterosexuality whereas, sexual attraction between same sex or gender is termed homosexuality. While heterosexuality is considered common and is the most common sexual orientation among cultures, there has also been a constant mention of homosexuality throughout Indian history. It has been argued whether it is a result of nature or nurture. Several studies have been conducted to resolve the nature

# KALĀ

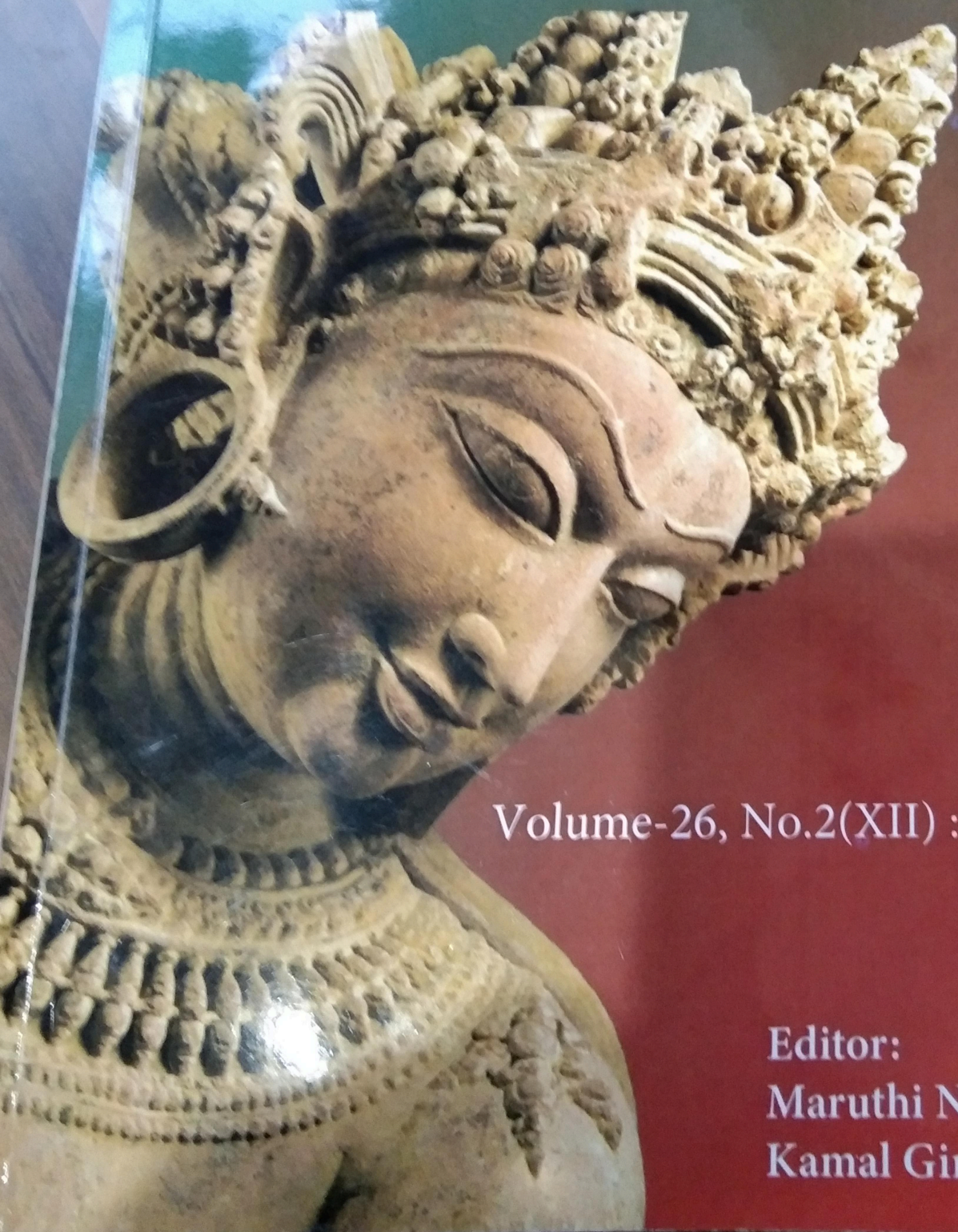
Journal of Indian Art History Congress

ISSN : 0975-7945

# KALĀ

Volume-26, No.2(XII) : 2020-2021

Editor:  
Maruthi Nandan Tiwari  
Kamal Giri



## A STUDY ON CHALLENGES FACED BY THE MIGRANTS DURING THE COVID- 19 PANDEMIC

RAICHEL DIANA

Assistant Professor, Department of Social Work  
Patrician College of Arts and Science, Chennai.

### ABSTRACT

India is facing a lot of crisis since the inception of lockdown from March 2020. Almost all activities in the country have come to a standstill during this time. There was no contribution to the production and supply and even essential goods and services where completely or partially suspended. The transport facility was completely stopped and there were no trains and flights or even buses for the people to move. The lockdown has severely impacted migrants who have come from various places villages and small towns to the big cities in search of job and livelihood. A sudden lockdown has created a shock in the minds of several migrants who are far from their native and their families. In an urgency to return back to their natives the migrants had to walk for kilometres with barefoot, and many carried their children with them as well. Migrants who were not able to physically go to the villages suffered in the cities where they were working due to lack of shelter, food and so on. This scenario has created depression, stress, lack of confidence let you suicidal thoughts in many migrants. The government initially did not make any arrangements for the migrants before announcing the Lock down. After a long struggle the government finally announced measures to send the migrants to their natives.

This research intends to study the problems and the challenges faced by the migrant workers who are caught in Chennai who were desperate to reach their families and were unable to move to their natives.

**Keywords :** *Migrants Challenges, Covid pandemic.*

### RESEARCH METHODOLOGY

This study explored effective interviewer strategies on collection of narrative data by telephone with a sample of 50 men migrants working in various sectors in Chennai City. Qualitative follow-up, in-depth interviews were conducted over the telephone. Questions explored the challenges faced by the men and their experiences during the lock down period. Descriptive Research Design was used as a research design which helped in describing and observing the behaviour and the understanding the problems of the respondents without influencing the individual.

Convenience sampling technique was used because the collecting samples were a challenge due to the pandemic lockdown situation. Purposive sampling was used to choose samples for data collection the study has been focused particularly on migrant men due to the convenience of the researcher. The Universe of the study is the migrant men workers who were held up in the Chennai City due to the sudden lockdown announcement by the Government and are unable to move to their natives. A qualitative tool was prepared to address various challenges faced by the respondents and a telephonic interview was used to collect data. The researcher used telephonic interviews through

**A STUDY ON GREEN MARKETING AND ITS IMPACT ON CONSUMER BUYING  
BEHAVIOUR IN CHENNAI**

**S. JENIFER ANGELEN** Research scholar & Department of Commerce & *Manonmaniam Sundaranar University* Tirunelveli Tamilnadu, India. [Email-jeni92angel@gmail.com](mailto:Email-jeni92angel@gmail.com)

**R. SUNITA** Research scholar & Department of Commerce & *Manonmaniam Sundaranar University* Tirunelveli Tamilnadu, India. Email- [sunitajohn10@yahoo.com](mailto:sunitajohn10@yahoo.com)

**Dr. M. MOHAMED SIDDIK** Assistant Professor & Department of Commerce & *Sadakathuah Appa College*, Tirunelveli, Tamilnadu, India. Email- [mohsi25@gmail.com](mailto:mohsi25@gmail.com)

**Abstract**

Green marketing is going to be proactive topic with it steps into the world of the consumers where consumers are not only aware for the multiple brands and their perceived quality but also they have started to pay more attention to the environment and thereby becoming more eco-friendly. Global warming, pollution and climate change are some of the problems that have become an increasingly concerning issue internationally. Environmental deterioration has led to businesses changing the way in which they conduct themselves, leading to the emergence of green marketing. A considerable amount of research has been conducted on green marketing and consumer behaviour mainly in developed cities in India. There is, however, a noticeable dearth of knowledge pertaining to consumers in Chennai. Thus, the aim of this paper is to examine, at an exploratory level, the influence of green marketing on the purchasing behaviour of Chennai consumers. A survey was conducted on a sample of 100 consumers using a quantitative, exploratory and descriptive design. The results indicate that Chennai consumers have high knowledge levels on the issues facing the environment. Elements of the green marketing mix, specifically, green promotion, were found to raise awareness and encourage positive change in consumption behaviour. A large proportion of respondents preferred to patronize socially responsible retailers. Furthermore, respondents preferred green products over standard alternatives. However, they were price sensitive which affected their purchasing decisions. It emerged that there was no significant difference between low and high income earners in terms of price sensitivity, and no significant difference between lower and higher qualified respondents in terms of knowledge and awareness of environmental degradation and green marketing.

**Keywords:** green marketing, green marketing mix, consumer purchase decisions.

**1. INTRODUCTION**

**Green marketing** refers to the process of selling products and/or services based on their environmental benefits. Such a product or service may be environmentally friendly in itself or produced and/or packaged in an environmentally friendly way. The obvious assumption of green marketing is that potential consumers will view a product or service's "greenness" as a benefit and base their buying decision accordingly. The not-so-obvious assumption of green marketing is that consumers will be willing to pay more for green products than they would for a less-green comparable alternative product - an assumption that, in my opinion, has not been proven conclusively. While green marketing is growing greatly as increasing numbers of consumers are willing to back their environmental consciousnesses with their dollars, it can be dangerous. The public tends to be skeptical of green claims to begin with and companies can seriously damage their brands and their sales if a green claim is discovered to be false or contradicted by a company's other products or practices. Presenting a product or service as green when it's not is called greenwashing. Simply put, green cleaning is about using products that are safe and healthy for you and the environment and about employing eco-friendly cleaning practices, like reducing water

usage. It's also about using products from conscientious companies with sustainable business practices.

green marketing to be effective, you have to do three things; be genuine, educate your customers, and give them the opportunity to participate.

**1) Being genuine** means that

- That you are actually doing what you claim to be doing in your green marketing campaign and
- That the rest of your business policies are consistent with whatever you are doing that's environmentally friendly. Both these conditions have to be met for your business to establish the kind of environmental credentials that will allow a green marketing campaign to succeed.

**2) Educating your customers** isn't just a matter of letting people know you're doing whatever you're doing to protect the environment, but also a matter of letting them know why it matters. Otherwise, for a significant portion of your target market, it's a case of "So what?" and your green marketing campaign goes nowhere.

**3) Giving your customers an opportunity to participate** means personalizing the benefits of your environmentally friendly actions, normally through letting the customer take part in positive environmental action.

## II. LITERATURE REVIEW

### Green marketing

Green marketing has become an important area of focus for both companies and society in general. It is similar to traditional marketing, the only difference is that it incorporates marketing activities that entail manufacturing, differentiating, pricing and promoting goods or services which are environmentally safe and are able to satisfy consumers' environmental needs (Ansar, 2013). Green marketing is defined by Diglel and Yazdanifard (2014) as a range of activities, which include alteration of the production process, adjustment of product lines and progression in packaging, as well as transforming advertising.

The term "green marketing" is used interchangeably with "sustainable marketing", "ecological marketing" or "environmental marketing". The objective is, ultimately, to sell products that are harmless to the environment, whilst simultaneously actively encouraging consumers to support and protect the environment (Stern and Ander, 2008). This implies that businesses need to change the way in which they operate and to provide products that are beneficial to both consumers and the environment.

### Green business

The Department of Environmental Affairs and Tourism (2005) believes that globalization has resulted in a shift in the way business is conducted. This, along with the growing pressure on the environment as well as the usage and exploitation of natural resources, has meant that trade and the environment have become inextricably linked. There are various reasons, besides environmental degradation, for companies adopting green marketing. Singh (2012) identifies government pressure, corporate social responsibility, opportunity, and stake-holder and competitive pressure as key motives to embracing green marketing within firms.

Many studies have shown that consumers prefer eco-friendly products and have a favourable attitude towards companies that follow green practices (Bhatia and Jain, 2013). Rayapura (2014), in support, cites a Nielsen global study which showed that 55% of global online consumers across sixty countries surveyed expressed willingness to pay more for products and services from companies that are dedicated to positive social and environmental impact. Marcacci (2013) observes that there has been a significant increase in the demand for green products and services, as well as for green enterprises. Therefore, consumer demand for environmentally safe products is considered to be the primary motivation behind

## THE CONCEPT OF GREEN MARKETING CHALLENGES AND OPPORTUNITIES FOR SUSTAINABLE DEVELOPMENT

□ S. JENIFER ANGELEN\*

□ R. SUNITA\*\*

□ Dr. M. MOHAMED SIDDIK\*\*\*

### ABSTRACT

Green revolutions, going green, environmental protection, sustainable life style, sustainable development, protecting our earth and many more have become a natural phenomenon in our everyday life. Green marketing is a tool used by many companies in various industries to follow this trend. The development of green marketing has opened the door of opportunity for companies to co brand their products into separate line, lauding the green-friendliness of some while ignoring that of others. This paper mainly focuses on the concept, need, importance & strategy of green marketing in India. As society becomes more concerned with the natural environment, businesses have begun to modify their behavior in an attempt to address society's "new" concerns. Some businesses have been quick to accept concepts like environmental management systems and waste minimization, and have integrated environmental issues into all organizational activities. One business area where environmental issues have received a great deal of discussion in the popular and professional press is marketing. Terms like "Green Marketing" and "Environmental Marketing" appear frequently in the popular press. Many governments around the world have become so concerned about green marketing activities that they have attempted to regulate them.

**Keywords :** Green marketing, Sustainability, Environmentally Safe, Recyclable, Eco-Friendly products.

### Introduction

The term green marketing is often used freely and in the wrong context. The terms like phosphate free, recyclable, refillable, ozone friendly and environmentally friendly are some of the things consumers most often associate with green marketing. But green marketing incorporates a broad range of actions such as the product modification, changes to the production process, packaging changes, as well as modifying advertising which can be applied to consumer goods, industrial goods and even services. According to a recent research, at a world level, the positive fame of a company about its environmental responsibility is determined by the 53% of consumers (about 1 billion) as an important reason that makes them buy and use its products. Unfortunately, a majority of people

believe that green marketing refers only to the endorsement or advertising of products with environmental characteristics. Terms like Phosphate free, Recyclable, Ozone friendly, and environment friendly are some of the things consumers most often associated with green marketing. In general, green marketing is a much broader concept that can be useful to consumer goods, industrial goods and even services. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising.

### WHAT IS GREEN MARKETING :

□ The marketing or promotion of a product based on its environmental performance or an improvement thereof (Charter & Polonsky 1999).

\* Research scholar & Department of Commerce & Manonmaniam Sundaranar University Tirunelveli Tamilnadu, India.

\*\*Research scholar & Department of Commerce & Manonmaniam Sundaranar University Tirunelveli Tamilnadu, India

\*\*\* Assistant Professor & Department of Commerce & Sadakathuah Appa College, Tirunelveli, Tamilnadu, India.

- A holistic and responsible strategic management process that identifies, anticipates, satisfies and fulfils stakeholder needs, for a reasonable reward, that does not adversely affect human or natural environmental well-being.

Green marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment. A greater part of people believe that green marketing refers solely to the promotion or advertising of products with environmental characteristics. Terms like Phosphate Free, Recyclable, Refillable, Ozone Friendly, and Environmentally Friendly are some of the things consumers most often associate with green marketing. While these terms are green marketing claims, in general green marketing is a much broader concept, one that can be applied to consumer goods, industrial goods and even services. For example, around the world there are resorts that are beginning to promote themselves as "eco-tourist" facilities. Thus green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising. Yet defining green marketing is not a simple task. Indeed the terminology used in this area has varied, it includes: Green Marketing, Environmental Marketing and Ecological Marketing. This early definition has three key components, such as it is a subset of the overall marketing activity; it examines both the positive and negative activities; and narrow ranges of

environmental issues are examined.

## **WHY IS GREEN MARKETING CHOSEN BY MOST MARKETERS?**

Most of the companies are venturing into green marketing because of the following reasons:

### **a. Opportunity**

In India, around 25% of the consumers prefer environmental-friendly products, and around 28% may be considered healthy conscious. Therefore, green marketers have diverse and fairly sizeable segments to cater to. The Surf Excel detergent which saves water (advertised with the message—"do bucket paanirozbachana") and the energy-saving LG consumers durables are examples of green marketing. We also have green buildings which are efficient in their use of energy, water and construction materials, and which reduce the impact on human health and the environment through better design, construction, operation, maintenance and waste disposal.

### **b. Social Responsibility**

Many companies have started realizing that they must behave in an environment-friendly fashion. They believe both in achieving environmental objectives as well as profit related objectives. The HSBC became the world's first bank to go carbon-neutral last year. Other examples include Coca-Cola, which has invested in various recycling activities. Walt Disney World in Florida, US, has an extensive waste management program and infrastructure in place.

### **c. Governmental Pressure**

Various regulations are framed by the government to protect consumers and the society at large. The Indian government too has developed a



## STRATEGIES ADOPTED BY PARENTS TO IMPART SEXUALITY EDUCATION TO THEIR CHILDREN WHO FACED SEXUAL ABUSE THREAT DURING THE PANDEMIC PERIOD.

**UshaJose K** MSW, M.Sc(Psy), M.Phil, Associate Professor, Patrician College, Chennai  
**Dr.Arjunan R**,MSW PhD, Research Guide, Assistant Professor, Bharathiar University, Coimbatore

**Abstract-** In the wake of the Corona Virus pandemic lockdown period which started in the month of March 22<sup>nd</sup> when people were fighting against the deadly virus and keeping themselves safe and staying indoors, the lockdown has proven to be nothing short of hell for the children trapped in their houses along with their abusers. This paper is just to look into the children status how they face violence or abuse during this lockdown period. The newspapers and the media reports that children are trapped at homes and they don't have the freedom to come out because of the pandemic situation. If the child is in an unwanted home situation, he tends to run away or face the violence or abuse instantly. Based on the few NGO reports and paper reports the situation is said to be very serious. How can parents impart sexuality education to their children and strategies to prevention of child sexual abuse is detailed in this paper.

**Key words:** Child sexual abuse, Corona virus, lockdown, violence, pandemic, Sexuality Education

### INTRODUCTION

Child sexual abuse (CSA) has been identified as a serious public health issue. This issue has been a global challenge and it is reported all over the globe. The World Health Organization (WHO) defines CSA as a coercive act with a child who is unable to understand or provide consent, leading to serious physical, sexual and psychological damage. CSA includes sexual activities like inappropriate touching of private parts or indulging the child in touching the private parts of the perpetrator, molestation, sodomy, exhibitionism, pornography, and cyber sexual acts. It is considered offensive in every culture in the whole universe.

The present study aims at the investigation of strategies adopted by parents to impart sexuality education to their children between the age group of 10-16 years. Sexuality education program is also recommended by the UNICEF, and with the rising number of child sexual abuse in our country, it is necessary to understand if parents are well equipped with the necessary knowledge on the subject and attitude towards sexuality education. This brings an alarming response from the parents as well as the government where there is a blame game as to who is responsible for a situation like this. This study will also help the researcher to understand the best strategies already being used by some parents, and enable other parents to use the same.

### Historical Perspectives and Sex Education

England from the 19th century, there were many sex education publications, whose objective was to guide parents to educate their children. However, in school, there was very little formal sex education. If classes did take place it was in context of 'hygiene'. Then after the Second World War when the focus shifted more to the prevention of STD's and HIV/AIDS, became a major health concern. There were some issues which focused on whether parents should have the right to know if their children are being given contraceptives who are below the age of 16 years, and the growing strength of the lesbian and gay movement, led to a polarization of views on sex education, among politicians at local and national level. The 1980s continued to see an increase in the concerns for sex education. The aim was typically for students to realize the existence and extent to which gender inequality prevails. At the same time, sex education programmes increasingly began to have such aims as acquiring skills for decision-making, communication, personal relation management, parenting style and coping mechanism.

However, in India the situation of sex education varies from the perspectives of the Western countries. Sex education in India emerged, as explained by Nandini Manjrekar. (Manjrekar, 2015)

The report formulated by NIRANTAR on Sexuality Education for Young People. The sudden concern for control of population emerged in the year 1950 with the launch of the family planning programme, since over-population was considered as economically un reasonable. With the awareness that there was a large population of young people, between the ages of 15 and 49 years and that a large section of the population that is vulnerable to HIV/AIDS, the focus of education policies shifted to AIDS prevention for adolescent group. Thus importance to sexuality education was given preference. Around the year 2002, the National Population Education Programme had a special focus on Adolescent Sexual and Reproductive Health (ARSH). In the year 2006 the controversial Adolescent Education Programme (AEP) in collaboration with the National AIDS Control Organization (NACO) and UNICEF was launched.

Children and young people are normally seen by lots of different adults every day, like neighbors, grandparents and teachers. But due to coronavirus (COVID-19) were self-isolating, social distancing and spending much more time at home. This means some families might need extra support with parenting. And if a child is experiencing abuse, it should be seen into.

### **Need of Sexuality education in India**

The need of the study aims at understanding various strategies employed by the parents in imparting basic sexuality education to children below 18 years. Sexuality Education is a lifelong process of acquiring information and forming attitudes, beliefs and values. It encompasses sexual development, sexual and reproductive health, interpersonal relationships, affection, intimacy, body image and gender. (States, 2000) Sex education for school going adolescents occurs in the way we talk about body parts and its functions. Children need to be taught how to care, protect and respect their bodies. It is the role of the parent to educate the child on sexual health education. Parents are responsible for providing sex education to their children at an early age, however with reference to the Indian context parent find it difficult in communicating with their children on these sensitive issues. They do not know what is appropriate and inappropriate in this context. (KEARNEY, 2008) The current situation explains that though parents are open to discussing the basic concept of sexuality education under various headings such as hygiene, safety and gender roles but are facing a challenge in obtaining the required guideline on “what” has to be taught to the child which is an age appropriate content.

### **What to do if a child reveals abuse**

It can be upsetting or scary when a child reveals abuse. We might not know how to respond and be tempted to take control of the situation. We recommend you:

- Listen carefully to what they are saying, be patient and focus on what you’re being told. Try not to express your own views and feelings. If you appear shocked or as if you don’t believe them, it could make them stop talking and take back what they’ve said.
- Give them the tools to talk
- Let them know they have done the right thing by telling you, Reassurance can make a big impact. If they’ve kept the abuse a secret it can have a big impact knowing they’ve shared what’s happened.
- Tell them it is not their fault; Abuse is never a child’s fault. It’s important they hear, and know, this.
- Tell them it is taken seriously. They may have kept the abuse secret because they were scared they wouldn’t be believed. Make sure they know they can trust you and you’ll listen and support them.
- Don’t confront the alleged abuser, Confronting the alleged abuser could make the situation worse for the child.

- Explain what you will do next, for younger children, explain you're going to speak to someone who will be able to help. For older children, explain you'll need to report the abuse to someone who can help.
- Report what the child has told you as soon as possible, report as soon after you've been told about the abuse so the details are fresh in your mind and action can be taken quickly. It can be helpful to take notes as soon after you've spoken to the child. Try to keep these as accurate as possible.
- POCSO act and punishment we should be aware and book the abuser in that context.

Since the children between the age of 10 to 18 years are at the phase of adolescence. Adolescence is a period of life characterized by good health in which vulnerability to infectious childhood diseases is greatly reduced. Responsible, mutually being respectful and caring behavior in adolescence promotes and enhances healthy relationships, and help to promote family formation and parenthood. Adolescents experience a great deal of anxiety due to the curiosity in their mind about their sexual development and other related misconceptions. If they live with misconceptions and doubts that could lead to mental stress and mental traumas. It can lead to mistrust and seek to drugs and spoil their personality and latter to mental health problems.

Sexuality education will help children to develop positive perspective and attitude towards Sexuality. Adolescents have a lot of confusions and apprehensions related to sexuality education, when these queries can be answered with the help of scientific explanations. Adolescence does have myths about their organic development systems, bodily changes, hormonal effects and certain psychological impacts when they become anxious, stressful and pressurized. Parents role in motivating them in healthy practices can bring about great changes among the growing adolescents.

## II METHODOLOGY

### Objectives

1. To understand the socio demographic details of the respondents.
2. To find out the strategies adopted by the parents
3. To find out the relationship with demography and strategy used for prevention

This study was conducted in Chennai, among the parents of adolescents between the age group of 10-18 years. The study concentrated at understanding the various strategies adopted by the parents (both father and mother) in imparting sexuality education to their children, also the limitations faced by the parents in addressing the topic to the adolescent children. The pandemic period was the highlight and parents were really worried about the children who have sick covid parents, who were hospitalized and isolated. The researcher was not able to find such a respondent for the study.

### Selection of the Respondents

The research design used to conduct this study is the Descriptive Research Design which is used to describe characteristics of a population or phenomenon being studied. For the purpose of this study Descriptive research design was used to explicitly understand and explain the measures adopted by parents to impart sexuality education to their adolescent children. Sample in this study were parents from Chennai, whose children were studying in Anglo Indian school in Chennai.

The Sampling used was purposive random sampling. The average age of the parents was 40 for the Mothers and 45 years for the Fathers. The parents had their adolescent between the age group of 10-16 years. The sample was selected on the basis of the age group of the children. The sample size was 40, 20 Males and 20 females. 21 had a Post Graduate Degree, 15 with an Undergraduate degree and 4 of them with secondary education. They all live in urban areas. All are working mothers and fathers.

### Sources of Data

The data collected for the present study is from primary source essentially with the help of a semi-structured, self-constructed interview schedule, consisting of open ended and closed ended questions which were collected from parents of adolescents between the age group of 10-16 years across one

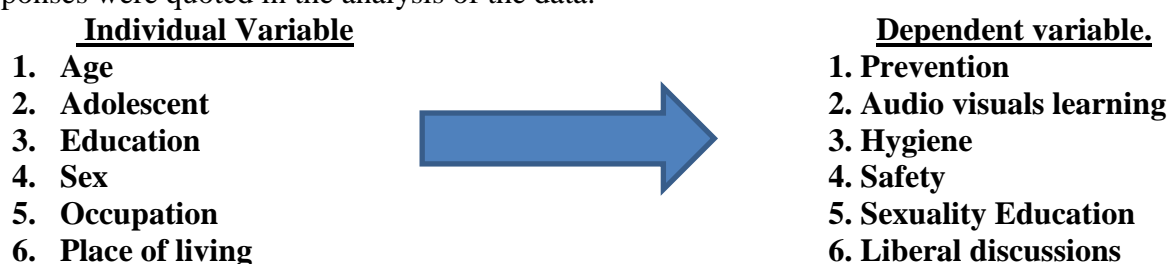
school in Chennai. This is qualitative study as well as a quantitative study, which helped enhance the quality of my research. The methodology helped me get a clear perspective on my topic.

### **Tools of Data Collection**

Data for the study was collected with help of self-constructed, semi structured interview consisting of open ended questions and closed ended question which thereby was distributed among the chosen sample. In order to measure the attitude of parents towards sexuality education, a standard tool was used.

### **Methods of Data Analysis**

Data collected from the field was analyzed using Microsoft Excel where the frequency of the number of people answering each question was evaluated as well as cross tabulation charts were made where data was broken down into subsets for comparison, along with which, the average number of responses for each question was examined. Bar graphs were constructed as well as some of the responses were quoted in the analysis of the data.



### **III. RESULTS AND FINDINGS**

The conclusion that which can draw from the analysis and interpretation is that firstly parents show a positive attitude. Coming to the major conclusion of the study with regards to the strategies adopted by parents towards imparting sexuality education to their adolescent children, show that majority of the parents prefer using verbal medium of communication to their adolescent as compared to visual mediums, parents find it more approachable and less invasive. It includes aspects of hygiene and safety from any sort of physical or sexual abuse, the ability of the child to distinguish between the “good and bad touch” “safe and Unsafe touch” and identify member whom they can trust and share if they are being harassed in any form.

Parents included both visual as well as verbal means to impart sexuality education, by visual medium it includes showing them videos, or pictures to help reach out to the children in a better way. Parents also used both visual and verbal means and with the help of certain videos, introduced or made way for conversations with their adolescent about the topic.

It was observed that parents found it difficult to put together the right content in sexuality education for their children as discussed earlier, for every parent the understanding of sex education differs. For some parent’s safety of the adolescent in terms of protecting themselves from being sexually harassed or abused as well as such as bodily growth and developmental changes. Some parents included hygiene as a part of sexuality education, especially parents with female adolescents, who have attained their puberty and started their menstrual cycle. Some parents also include aspects such as being socially aware of their vulnerability and take caution at every step. Some parents felt, especially female children should be aware of teenage pregnancy, premarital sex and unwanted unprotected sex which leads to HIV/AIDS. Here there is an urgent need for a frame work for parents guiding them on what exactly should be imparted to their adolescent that is age appropriate and the information shared with them should not be burdening them. Mothers were found to be the major educators to their adolescents, though the fathers seem to be equally involved in the growth of the child, however since most of the fathers are employed they do not get the time to interact with their adolescents. Mothers too are employed. Gender of the parent did not play a role in hindering the process sexuality education, as fathers and others both equally share the responsibility of their child growth. There was another interesting observation that parents prefer to talk to their adolescents on a

one to one basis rather than in the presence of other family members as they feel a sense of discomfort and awkwardness while addressing the issue. This result reveals that though we have reached a state of modernization, where parents are open to new ideas and liberal discussions with their children, however somewhere down the line due to certain factors they still seem to be pulling themselves back. A subject as sensitive and important as sexuality education must be confronted in the open, where there should be no space for discomfort.

During the pandemic lock down period where children were unable to go out, go to schools and they were locked up indoors. This has paved way for uncomfortable feelings for some of the female children as they face the abusers at home, may be a known person, drunkard father or neighbors. Health concerns of parents who are Covid-19 patients and they are admitted in the hospitals, where the child is left outside home with strangers in the neighborhood, or short stay homes. This happened because when parents move away to hospitals of sickness the children at home are isolated. The perpetrators take advantage of the situation and abuse children physically and sexually. Domestic violence also reported in media. Children should be empowered about sexuality education in childhood itself and the best educator is their own parents. Age appropriately the children should be educated on sexuality education and they should be aware or sensitized about their body and how to safeguard one's body from stranger's sexual feelings. Safe and unsafe touches should be taught to children and run away from when they feel they understand there is danger or ask for adults help and prevent victimization. There were more cases reported in the media during this pandemic period where many youngsters lost jobs and they are ideal at home. Thus leads to frustration and stress and they try to hurt vulnerable children and they into trouble. Parents should also educate their sons, on how to be good and not hurt the feelings of others through sex and consider sex as scared.

#### **IV. CONCLUSION**

To draw a conclusion from the study, though parents have come out of the stereo type and have begun to approach their adolescent with sexuality education, be it in any context, but there is an urgent requirement of a guideline for parents to refer to, and understand the important aspect to be catered to while imparting sexuality education. Parents should engage in the day to day activity of the child to build a rapport at the growing age of the child so that when they have attained their puberty and are ready to be addressed, the parents should be comfortable in talking to them. As observed in the study parents seem to have an uncomfortable approach as compared to the child. Parents are the ones who feel awkwardness, however parent need to understand the urgency, in educating the adolescent on important aspects to help them be more secure and tap the right resources for information. Open talk with the adolescent children is a must nowadays. The adolescent children should clarify their doubts with parents and if they do not they may get help from strangers and they are misguided by them too.

#### **Implications**

One of the major implications of the study is to further the process of research in field of adolescent's education where a parent friendly guideline can be formulated to help parents in their process of educating their children. The school curriculum should be designed based on research will be based on the parent's preferences. The study will also help to identify the existing subjects at different classes, which will help in effective integration of the aspects of sexuality education. Parents always feel that sex education or sexuality education means only talk about sexual intercourse. It is beyond that.

#### **Suggestions**

As observed in the study it is necessary for the school and teachers to partner with parents and conduct workshops addressing the lack of parental knowledge on appropriate content. Also, there is high need of including sexuality education at schools and should be imparted through classroom based activities. This is an urgent need and schools should cooperate with the parents to give permission to impart sexuality education for all classes in the schools by experts. Parents should build a good understanding with children right from their childhood to avoid barriers in

communication. Open talk with parents is the best way of ventilation of bottled up feelings. The policy makers must emphasize on a conducive environment in schools for teachers to address the topic with confidence and with scientific explanations. At the present situation it specifically links the lockdown and the ensuing economic issues to sexuality and abuse-related risks, as occur in contexts of child labour, child sex work and trafficking, child marriage and child sexual abuse, and that result in immediate and long-term mental health problems in children. It proposes a disaster risk reduction lens to offer recommendations to address the emerging child protection, psychosocial and mental health concerns.

#### **References.**

1. Kearney (2008). Retrieved from Better Health:
2. nspcc.org.uk
3. Sheila Ramaswamy, Shekhar, Seshadri, Department of Child and Adolescent Psychiatry, National Institute of Mental Health and Neurosciences, Bengaluru, Karnataka, India
4. Shuvabrata Poddar, Urbi Mukherjee, First Published August 26, 2020 Letter  
<https://doi.org/10.1177/0253717620951391>
5. States, S. i. (2000). SIECUS. Retrieved from SIECUS

# **AWARENESS AMONG COLLEGE STUDENTS ON CHILD SEXUAL ABUSE AND ITS PREVENTION STRATEGIES.**

**John Clinton M.Phil**

Research Scholar, Department of Social Work, Patrician College of Arts and Science, Adyar, Chennai-20

**Usha Jose.K. MSW, M.Sc(Psy), M.Phil,**

Associate professor, MPhil Research Guide, Patrician College of Arts and Science, Adyar, Chennai-20

## **ABSTRACT**

Child Sexual Abuse is a form of abuse or violence in which an adult or child is being caused physically, mentally, and emotionally. Violence may take in various places in rural, homes, schools, orphanages, residential care facilities, on the streets, in the workplaces, in prisons and in places of detention. This type of rude behavioral violence can cause the normal function of a child impairing their mental, physical and social being. In such extreme cases abuse of a child may get injured can result in death. There are different forms of Child sexual abuse: physical, emotional, sexual, neglect and exploitation which cause the health and lives of the growing children and may lead to suicidal attempts.

**Keywords :** *Child Abuse, Prevention of Sexual Abuse*

## **DEFINITION OF CHILD ABUSE**

Child Abuse is defined as a form of abuse in which a child is being caused by an adult through sexually, physically and mentally is called as child abuse.

## **CHILD ABUSE IN INDIA**

In India 53 percentage of children face some form of child sexual abuses in different forms and in different places. Children who report having been sexually abused is 6 percentages and the case where the abuser was in a relationship of trust with the child is 50%. Home is the place where the children are being very safe but nowadays the scenario has changed. In most of the cases of child sexual abuse some close relatives are the culprits of the crime.

## **CHALLENGES OF ABUSE SURVIVORS**

Due to fear of the family and society, the child is not willing to report or complain about the incident. In such abuse cases, the members of the family hide the incident inside the walls of the house to protect the honor of their family. Children work as domestic labor in hotels; restaurants and any other place of work are susceptible to sexual abuse. Moreover the abandoned children are also easy victims of the crime. A number of children go missing every year and are forced to enter prostitution and exposed into other form of sexual abuse. As compared to girls and boys the boys are also at an equal risk of sexual abuse and Sexual abuse causes the social, mental and physical growth and outlook of the person.

## **TYPES OF ABUSE**

### **Physical Abuse:**

Physical abuse is the means of injuring a child with an aggressive and rude behavior. This may include burning, hitting, punching, shaking, kicking, beating and other form of actions.

### **Sexual Abuse:**

Child Sexual abuse is inappropriate sexual behavior towards a child. It includes different types of abuses, making the child to intercourse, incest, rape, sodomy, exhibitionism and sexual exploitation. To be considered child abuse these acts have to be committed or dedicated by a person who will be responsible for the care of a child. If a unknown person commits these acts, it will be considered as sexual assault and handled solely by the police and criminal courts.

### **Emotional Abuse:**

Emotional abuse is also known as verbal abuse, mental abuse, and psychological maltreatment. It includes acts or failures to act by parents or caretakers that have caused or could cause, serious behavioral, cognitive, emotional, mental trauma.

### **Neglect:**

It is the failure of the parent and care giver to provide the basic needs of the children. Neglect can be in various ways which are physical, educational, or emotional. Physical neglect can include different categories which are not providing enough food or clothing, appropriate medical care, supervision, or proper weather protection. It may include abandonment of child. Educational neglect is unable to provide proper schooling or special educational needs,

### **Child labor:**

When a person or an adult who forces a child to work as an adult.

## **PREVENTION OF CHILD SEXUAL ABUSE**

- Parents should talk to the children about the body parts in order to prevent Child Abuse.
- Teachers and parents should teach their students and children that some body parts are private.
- To teach children about good touch and bad touch in schools and homes.
- To conduct Child Awareness programs for the children to prevent Child Abuse.
- To teach the children not to take pictures of their private parts.
- To show more concern and be involved in the child's life.
- To get to know about the people in the child's life.
- To choose caregivers carefully.
- To report the incidents of Child Abuse to the concerned person.
- To teach children how to react, if a child has been abused.
- To listen to children and believe what they say.
- To participate in the activities of children and get to know more about the friends of the child.

## **STATEMENT OF THE PROBLEM**

Child sexual abuse happens everywhere in India. Mostly youths older or stronger than the child uses his or her power to involve a child in child sexual behavior or activity. Sexual abusers may be men and women and may of any age, religion, nationality and socio-economic background. When God creates human beings, he begins with a marriage between men and women to love each other till last breath of their lives. This relationship still provides a greater foundation for the families to live stable and happy lives. Every child is a gift of God and it is the responsibility of the parents to take care of the children safely. In recent years, it is common that most of the authorities agree that the real problem in child sexual abuse is related to more of power and control than for sex.

## **NEED AND IMPORTANCE OF THE STUDY**

Child protection is nothing but it is an initiative to address or prevent the situation of violence, neglect, exploitation and abuse. It refers to protecting children from any danger and high risk. The Central and State Government should ensure that every child of this country should not fall out of the social security and should be protected and bring into their own safety net. While protecting the children, The Government should give more priorities to the right of every child, some children like street children, child laborers, children with disabilities, and children of commercial sex workers who are more vulnerable than others and need to be given special attention.

## **REVIEW OF LITERATURE**

**Daniel W. Smith (2006)** Child advocacy centers were nothing but it was developed to grow on child abuse investigation services given by child protective service agencies. The latest study was conducted and found that 76 child abuse cases were reported to higher authorities and enquired through child protective service in mid-south rural country. Difference between CAC and CPS were created in terms of participation of local law enforcement in the enquiry. Daniel W. Smith (2006)

## **RESEARCH METHODOLOGY**

### **INTRODUCTION**

Research methodology is a science of studying how research is to be carried out in day to day life. Essentially, the procedures by which researchers go about their work of describing, explaining and predicting phenomena are called research methodology. It is also defined as the study of methods by which knowledge is being gained. Its aim is to give the work plan of research. In research methodology, researcher uses different criteria for solving/searching the given research problems.

### **GENERAL OBJECTIVE**

The aim of this research is to study on awareness among college students on child sexual abuse and its prevention strategies.

### **SPECIFIC OBJECTIVES**

- To know the Demographic details of the respondents.
- To study about the health problems of College Students.
- To analyze the physical challenges of College Students.
- To explore about the mental issue of College Students.
- To find out the emotional problems of College Students.
- To study the sexual challenges of College Students.

### **RESEARCH DESIGN**

The researcher adopted Descriptive Research Design to this study. Descriptive Research Design is a fact finding investigation with adequate interpretation.

In this research the researcher has studied the challenges of Loyola College Students in Nungambakkam so descriptive Research Design may be most suitable to this research.

### **PILOT STUDY AND PRETEST**

The researcher conducted pilot study to find out the feasibility of the research. The researcher had selected Loyola College for the study. The researcher had conducted Pre-test with 5 respondents to examine the relevance of the questions in the interview Schedule. The researcher had made few corrections after the pretest.

### **TOOL OF DATA COLLECTION**

The researcher used Interview schedule for the data collection. The interview schedule was based on the objectives of the study.

## DATA PROCESSING

The researcher will use Statistical package for Social Sciences to consolidate the data. It is software which is used for analyzing the data introduced by the IBM. Here the IBM SPSS Statistics 20 version will be used for the analysis of data. Through that we can easily find out the findings.

## ACTUAL COLLECTION OF DATA

The researcher has collected data from 26 respondents in Loyola College from 12/02/2020 to 13/02/2020.

## UNIVERSE OF THE STUDY

Loyola College is the universe of the study. There were above 10000 students in this campus. The researcher has purposely selected Loyola College for the study.

## SAMPLING

In this research, the researcher has used non-probability random sampling method. The total sample size was 25.

## SAMPLE SIZE

The size of the sample was 26

## LIMITATIONS

- This research only focuses on Loyola College students and not on any other students

## DIFFICULTIES FACED BY THE RESEARCHER

During the time of data collection the respondents asked the researcher to explain each and every question in detail so the researcher had explained each and every question in detail to get the answers from the respondents it took too much time that was the major difficulty faced by the researcher.

## OPERATIONAL DEFINITIONS

Child abuse is defined as an abuse in which an adult injures a child or bad use of his or her in an offensive way.

## ANALYSIS AND INTERPRETATION

### INTRODUCTION:

The chapter 4 consists of analysis of the collected data. This chapter explains the respondent's opinion about the social exclusion.

**Table 1 Gender of the respondents**

S.No.	Gender	Number of Respondents	Percentage
1	Male	26	100
2	Female	0	0
	<b>Total</b>	<b>26</b>	<b>100</b>

Table 1 shows the distribution of the respondents by their gender.

In this research 100 percent of the respondents were men and 0 percent of the respondents were women and all of them were college students from different departments studying together in Loyola college campus.

It is clear that 100 percent of the respondents were men.

**Table 2 Age of the respondents**

S.No.	Age	Number of Respondents	Percentage
1	15 - 20 years	7	14
2	-25 years	13	26
3	26 - 30 years	6	12
	<b>Total</b>	<b>26</b>	<b>100</b>

Table 2 shows the distribution of the respondents by their age.

In this research less than 14 percent of the respondents were at the age group of 15-20 years. A little over one fourth of 26 percent of the respondents were at the age group of 21-25 years. Less than 12 percent of the respondents were at the age group of 26-30 years.

It is clear that A little over one fourth of 26 percent of the respondents were at the age group of 21-25 years.

**Table 3 Distribution of respondents who were abused**

S.No.	Abused	Number of Respondents	Percentage
1	Yes	8	30.77
2	No	18	69.23
	<b>Total</b>	<b>26</b>	<b>100</b>

Table 3 reveals the distribution of respondents by who were abused.

Nearly one third of 30.77 percent of the respondents were abused when they were children and large majorities of 69.23 percent of the respondents were not abused when they were children.

It shows that a large majority of the respondents were abused when they were children.

**Table 4 Distribution of respondents who were stopped the child abuse now**

S.No.	Stopped	Number of Respondents	Percentage
1	Yes	24	96.00
2	No	2	4.00
	<b>Total</b>	<b>26</b>	<b>100</b>

Table 4 shows the distribution of respondents who were stopped the child abuse now.

Most of 96 percent of respondents said that child abuse was stopped now and less than 4 percent of the respondents said that child abuse was not stopped now.

It is clear that Most of the respondents said that child abuse was stopped now.

**Table 5 Distribution of respondents who were disturbed by the abuse**

S.No	Disturbed by the abuse in life physically or emotionally	Number of Respondents	Percentage
1	Yes	9	34.62
2	No	17	65.38
	<b>Total</b>	<b>26</b>	<b>100</b>

Table 5 shows the distribution of respondents who were disturbed by the abuse physically or emotionally in their lives.

A little over one fourth of 34.62 percent of the respondents were disturbed by the abuse physically or emotionally in their lives. A majority of 65.38 percent of the respondents were not disturbed by the abuse physically or emotionally in their lives.

It is obvious that a majority of 65.38 percent of the respondents were not disturbed by the abuse physically emotionally in their lives.

**Table 6 Distribution of respondents who feel like it's ok that they were abused**

S.No	it's ok that they were abused	Number of Respondents	Percentage
1	Yes	1	3.85
2	No	25	96.15
	<b>Total</b>	<b>26</b>	<b>100</b>

Table 6 shows the distribution of respondents who feel like it's ok that they were abused.

Less than 3.85 percent of the respondents feel like its ok that they were abused. Most of 96.15 percent of the respondents did not feel like its ok that they were abused.

It is clear that Most of 96.15 percent of the respondents did not feel like its ok that they were abused.

**Table 7 Distribution of respondents who were affected by the abuse bodily**

S.No	Affected by the abuse bodily	Number of Respondents	Percentage
1	Yes	3	11.54
2	No	23	88.46
	<b>Total</b>	<b>26</b>	<b>100</b>

Table 7 shows that distribution of the respondents who were affected by the abuse bodily.

Less than 11.54 percent of the respondents were affected by the abuse bodily. Most of 88.46 percent of the respondents were not affected by the abuse bodily.

It is clear that most of the respondents were not affected by the abuse bodily.

**Table 8 Distribution of respondents who were attempted to suicide because of abuse**

S.No	Attempted to suicide because of abuse	Number of Respondents	Percentage
1	Yes	0.00	0
2	No	26	100
	<b>Total</b>	<b>50</b>	<b>100</b>

Table 8 shows that distribution of respondents who were attempted to suicide because of abuse

Less than 0 percent of respondents were attempted to suicide because of abuse. Full percent of the respondents were not attempted to suicide because of abuse.

It is obvious that. Full percent of the respondents were not attempted to suicide because of abuse.

**Table 9 Been to a counselor/family/friends/priest to tell your grievances**

S.No	Been to a counselor/family/friends/priest to tell your grievances	Number of Respondents	Percentage
1	Yes	4	15.38
2	No	22	84.62
	<b>Total</b>	<b>50</b>	<b>100</b>

Table 9 shows that distributions of respondents have not been to a counselor/family/friends/priest to tell their grievances.

Less than 15.38 percent of the respondents have been to a counselor/family/friends/priest to tell their grievances. Most of 84.62 percent of the respondents have not been to a counselor/family/friends/priest to tell their grievances.

It is clear that most of the respondents have not been to a counselor/family/friends/priest to tell their grievances.

Table-10 Abuser threaten you not to tell anyone about the abuse

S.No	Abuser threaten you not to tell anyone about the abuse	Number of Respondents	Percentage
1	Yes	3	11.54
2	No	23	88.46
	Total	50	100

Table 10 shows that distributions of respondents were not threatened to tell anyone about the abuse.

Less than 11.54 percent of the respondents said that they were threatened to tell anyone about the abuse. Most of 88.46 percent of the respondents were not threatened to tell anyone about the abuse.

It clearly shows that most of the respondents were not threatened to tell anyone about the abuse.

Table 11 Done any activities to forget the abuse incidents

S.No.	Done any activities to forget the abuse incidents	Number of Respondents	Percentage
1	Yes	8	30.77
2	No	18	69.23
	Total	50	100

Table 11 shows that distributions of the respondents who were done any activities to forget the abuse incidents.

Nearly one third of 30.77 percent of the respondents were done activities to forget the abuse incidents. A large majority of 69.23 percent of respondents were not done any activities to forget the abuse incidents.

It is obvious that a large majority of the respondents were not done any activities to forget the abuse incidents.

Table-12 Need any help from an expert to talk it out?

S.No	Need any help from an expert to talk it out	Number of Respondents	Percentage
1	Yes	3	11.54
2	No	23	88.46
	Total	50	100

Table 10 shows that most of the respondents who were needed any help from an expert to talk it out.

Less than 11.54 percent of the respondents said that they were needed any help from an expert to talk it out. Most of 88.46 percent of the respondents said that they were not needed any help from an expert to talk it out.

It is clear that that most of the respondents were not needed any help from an expert to talk it out.

MAIN FINDINGS

Based on the analysis and interpretation of the collected data, the researcher presents the main findings of the study in line with the objectives:

- 100 percent of the respondents were men.
- All the respondents are college students from different departments studying together in Loyola college campus.
- A little over one fourth of 26 percent the respondents were at the age group of 21-25 years.
- Large majorities of 69.23 percent of the respondents were not abused when they were children.

- Most of 96 percent of respondents said that child abuse was stopped to them now.
- A majority of 65.38 percent of the respondents were not disturbed by the abuse physically or emotionally their lives.
- Most of 96.15 percent of the respondents did not feel like its ok that they were abused.
- Most of 88.46 percent of the respondents were not affected by the abuse bodily.
- Full percent of the respondents were not attempted to suicide because of abuse.
- Most of 84.62 percent of the respondents have not been to a counselor/family/friends/priest to tell the grievances.
- Most of 88.46 percent of the respondents were not threatened to tell anyone about the abuse.
- A large majority of 69.23 percent of respondents were not done any activities to forget the abuse incidents.
- Most of 88.46 percent of the respondents said that they were not needed any help from an expert to tell it out.

### **SUGGESTIONS, RECOMMENDATIONS & CONCLUSION**

- Significant numbers of respondents were illiterates.
- Nearly one third of the respondents said that they were being abused at the age group of 10-15 years old.
- A majority of 53.21 percent of the respondents said that the occupation of their mother was daily wages.
- 38.46 percent of the respondents said that the friends were the causes of the abuse.

Home is the place where the children are being very safe but nowadays the scenario has changed. In most of the cases of child sexual abuse some close relatives are the culprits of the crime.

### **WEBSITE REFERENCES**

- [1] <https://pdfs.semanticscholar.org/81da/ee16ee9d7321a6d81b7458fc7c1159527211.pdf>
- [2] [https://www.researchgate.net/profile/Eli\\_Newberger\\_Newberger/publication/22753922\\_Child\\_Abuse\\_in\\_the\\_International\\_Year\\_of\\_the\\_Child/links/5bdc8efe299bf1124fb55fea/Child-Abuse-in-the-International-Year-of-the-Child.pdf](https://www.researchgate.net/profile/Eli_Newberger_Newberger/publication/22753922_Child_Abuse_in_the_International_Year_of_the_Child/links/5bdc8efe299bf1124fb55fea/Child-Abuse-in-the-International-Year-of-the-Child.pdf)
- [3] <https://www.tandfonline.com/doi/abs/10.1080/10538712.2014.929606>
- [4] <https://heinonline.org/HOL/LandingPage?handle=hein.journals/glj63&div=56&id=&page=>



# நெய்தல் ஆய்வு

## NEITHAL AAIVU

மலர் - 5  
VOLUME - 5

இதழ் - 4  
ISSUE - 4

தமிழ் காலாண்டிதழ்  
TAMIL QUARTERLY

விலை ரூ.100/-  
PRICE Rs. 100/-

அக்டோபர் - 19 சம்பர் 2020  
October - December 2020



# இதழ் : பதினெட்டு நெய்தல் ஆய்வு

தமிழ் காலாண்டிதழ்

ISSN No. 2456 - 2882



மலர் - 5 இதழ் - 4 அக்டோபர் - டிசம்பர் 2020

## வள ஆசிரியர்கள்

கவிஞர் ஈரோடு தமிழன்பன், சென்னை

பேராசிரியர் ம.தீருமலை, மதுரை

பேராசிரியர் ம.பெ.சீனிவாசன், மதுரை

பேராசிரியர் ச.சீனிவாசன், புது வெல்லி

## சிறப்பாசிரியர்

முனைவர் அ.மோகனா, மதுரை

## நிர்வாக ஆசிரியர்

முதுமுனைவர் ப.தீருஞானசம்பந்தம், மதுரை

## ஆசிரியர் குழு

முனைவர் அ. செந்தில் நாராயணன், மதுரை

முனைவர் த. தனஞ்செயன், சென்னை

முனைவர் மு.தேவராஜ், சென்னை

வி. தேவேந்திரன், சென்னை

முதுமுனைவர் மா. வசந்தகுமார், சென்னை

முனைவர் இரா.சு. முருகன், நஞ்சாவூர்

## தொகுப்பாசிரியர்

முதுமுனைவர் ப. தீருஞானசம்பந்தம்

உதவிப் பேராசிரியர்

மன்னர் திருமலை நாயக்கர் கல்லூரி (தன்னாட்சி)

பசுமலை, மதுரை - 625 004.

## பதிப்பாளர்

சு. நீத்தியானந்த்

நெய்தல் பதிப்பகம்,  
சென்னை.

## கணினி மற்றும் இதழ் வாடிவமைப்பு

வெப்பாய்ன்ட்

சென்னை - 5.

போன் : 044 - 4207 5838, 2848 3750

## அலுவலக முகவரி

எண். 16, சின்னப்பா தெரு,

திருவல்லிக்கேணி, சென்னை - 600 005.

போன் : 044 - 4207 5836 / 2848 3750

மின்னஞ்சல் : neithalp@yahoo.co.in

தலையங்கம்

கரோண பெருந்தொற்று காலம் பல்வேறு தொழில்துறையை முடக்கிப் போட்டது. இதில் பத்திரிகை துறையும் விதிவிலக்கல்ல. சில கடுமையான காலச் சூழலுக்குப் பிறகு நெய்தல் இதழ் வெளிவருகின்றது.

ஐந்து ஆண்டுகளாக வெளிவந்த நெய்தல் இதழ்கள் ஒரு குறிப்பிட்ட பொருண்மையை மையமாகக் கொண்டு வெளிவந்தன. இத்தன்மையில் இருந்து இவ்விதழ் சற்று மாறுபட்டு வெளிவருகின்றது. சங்க இலக்கியம் முதல் நாட்டார் வழக்காற்றியல் வரையிலான ஒன்பது இலக்கிய வகைமைகளில் பதினைந்து கட்டுரைகள் அடங்கிய இதழாக இந்நெய்தல் இதழ் உள்ளது.

சங்க இலக்கியங்கள் குறித்து பல்வேறு பொருண்மைகளில் நிகழ்த்தப்பட்ட ஆய்வுகளைக் கவனப்படுத்துவதாக நான்காவது கட்டுரையும், கலித்தொகையின் 16 பாடலின் உரையில் உள்ள சிக்கல்களைக் குறித்து விவாதிப்பதாகப் பத்தாவது கட்டுரையும் உள்ளன. ஆறாவது கட்டுரை அகநானூற்றில் பேதமை எனும் மெய்ப்பாடு இடம் பெற்றிருக்கும் திறத்தைப் பேசுகிறது.

குறிஞ்சிப்பாட்டு, பத்துப்பாட்டு நூல்களுள் குறிப்பிடத்தக்க ஒரு நூல். ஆரிய அரசனுக்குத் தமிழ் அகப்பொருள் மரபைக் கற்பிக்கும் பொருட்டு கபிலரால் பாடப்பட்ட சிறப்பைக் கொண்டது. இந்நூல் முன்னிறுத்தும் மகளிரின் ஆளுமைத் திறத்தை விளக்குவதாகப் பதினைந்தாவது கட்டுரை அமைந்துள்ளது.

சங்க மருவிய கால இலக்கியங்களுள் முதன்மையான இடத்தைப் பெறும் நூல்கள் இரண்டு. ஒன்று திருக்குறள்; மற்றொன்று நாலடியார் ஒன்பதாவது கட்டுரை எம்.எஸ். பூரணலிங்கம் பிள்ளையின் திருக்குறள் மொழிபெயர்ப்பு நெறிகளை உரிய சான்றுகளோடு எடுத்துக் காட்டி விளக்குகிறது. எட்டாவது கட்டுரை அறிமுக நிலையில் நாலடியார் முன் வைக்கும் அறக் கருத்துகளைத் தொகுத்துரைக்கின்றது.

இலக்கண உரைகளில் இடம்பெறும் இலக்கிய மேற்கோள்களைத் (நற்றிணை) தொகுத்து அடைவு செய்யும் முயற்சியைப் பதினான்காவது கட்டுரை முன்னெடுத்திருக்கிறது.

புனைகதைகளும் கோட்பாடுகளும் பத்தொன்பதாம், இருபதாம் நூற்றாண்டில் பெரும்வளர்ச்சியைப் பெற்று தமிழியல் ஆய்விலும் இலக்கிய வகைமைகளின் ஆக்கத்திலும் தனித்துவத்தைப் பெற்று நிற்கின்றன. திறனாய்வு, மொழிபெயர்ப்பு, பெண்ணியம், நாட்டார்

7

## நாட்டார் வாழ்வியல் வலதும் இடதும்

முனைவர் த.தனஞ்செயன்

உலக வரலாற்றில் உயிர்ப்புள்ள பதிவுகளைத் தன்னகத்தே கொண்டுள்ள தமிழ்ச்சமூகமானது தமது பழக்க வழக்கங்களாலும் பண்பாட்டுக் குறிப்புகளாலும் இன்றளவும் போற்றப்பட்டு வருகின்றது. இவ்வாறு தெளிந்த வாழ்க்கை முறையைக் கொண்டுள்ள தமிழரின் வாழ்வில் காரண, காரியங்களின் அடிப்படையில் சில பழக்கங்கள் தொடர்ந்து கடைபிடிக்கப்படுகின்றது. அவ்வகையில் சங்க காலம் முதற்கொண்டு தற்காலம் வரை வழங்கப்படும் வலது மற்றும் இடது பற்றிய பதிவுகளைப் பேசுவதாக இக்கட்டுரை அமைகின்றது.

தமிழ்ச் சமூகத்தில் வழக்கிலுள்ள வலது, இடது பற்றிய செயல்பாடுகள் சங்க இலக்கியங்கள் முதற்கொண்டு பல்வேறு இலக்கியங்களிலும் விரிவாகப் பதிவு செய்யப்பட்டுள்ளன. சான்றாக, அகநானூற்றின் 122-வது பாடலில் கோயில்கள் தோறும் இவனை வலஞ்செய்வித்து வா எனவும் பரிபாடலின் 16-வது பாடலில் வலப்பக்கம் கழித்து ஓடும் நீர் உந்திக் கொண்டு வந்த சிறுவர் எனவும் நெடுநல்வாடையின் முதலடியில் உலகம் குளிரும்படி தான் கிடந்த மலையை வலதுபுறமாக எழுந்து வளைந்து பருவம் பொய்க்காத முகில் எனவும் பலவாறு சுட்டப்படுவதைக் காண முடிகிறது. மேலும் வலம் என்பது எப்போதும் வெற்றியைத் தருவது என்ற பொருள்படும்படியான பதிவுகள் வலம்படு வாய்வாள் (புறம்.91:1) வலம்படு முரசில் (அகம்.127:3) வலம்படு கொற்றம் (அகம்.199:21) வலம்படு வேட்டம் (அகம்.252:6), வலனுயர் நெடுவேல் (புறம்.309:7) என இடம்பெற்றுள்ளதையும் காணமுடிகின்றது. இவை தவிர வேட்டையின்போது வலது பக்கமாக விழும் விலங்குகளையே புலி உண்பதாகக் குறிப்பிடும் புறநானூற்றின் 131-வது பாடல், இடது பக்கத்தின் மீது அக்காலத்தில் இருந்த வெறுப்பிற்குச் சான்றாகின்றது. அவ்வகையில் இப்பாடல் குறித்துக் கருத்துத் தெரிவிக்கும் பி.எல்.சாமி அவர்கள், புலிக்கு மனிதனின் உயர்வு, பெருமிதம், மானம் ஆகிய குணங்கள் ஏற்றிச் சங்கப் புலவர் இப்பாடலை எழுதியிருக்க வேண்டும் எனக் க.காந்தி சுட்டுவது கவனிக்கத்தக்கதாக உள்ளது.

மாறாக, சங்க காலத்தை அடுத்து வந்த சிலப்பதிகாரத்தின் இந்திர விழா ஊரெடுத்த காதையில், விழாநாளன்று மாதவியின் வலதுகண் துடிப்பதைத் தீமை நிகழப்போவதை உணர்த்துவதாகக் குறிப்பிடும் செய்தி இடம்பெற்றுள்ளது. இதனை இளங்கோவடிகள்,

நெய்தல் ஆய்வு

35



# நெய்தல் ஆய்வு

## NEITHAL AAIVU

மலர் - 6  
VOLUME - 6

இதழ் - 1  
ISSUE - 1

தமிழ் காலாண்டிதழ்  
TAMIL QUARTERLY

விலை ரூ.100/-  
PRICE Rs. 100/-

ஜனவரி - மார்ச் 2021  
January - March 2021



## நெய்தல் ஆய்வு

தமிழ் காலாண்டிதழ்

ISSN No. 2456 - 2882



மார்ச் - 6

இதழ் - 1

சனவரி - மார்ச், 2021

வள்ள ஆசிரியர்கள்

கவிஞர் ஈரோடு தமிழம்பன், சென்னை

பேராசிரியர் ம.திருமலை, மதுரை

பேராசிரியர் ம.பெ.சீனிவாசன், மதுரை

பேராசிரியர் ச.சீனிவாசன், புது டெல்லி

சிறப்பாசிரியர்

முனைவர் அ.மோகனா, மதுரை

நிர்வாக ஆசிரியர்

முதுமுனைவர் ப.திருஞானசம்பந்தம், மதுரை

ஆசிரியர் குழு

முனைவர் அ. செந்தில் நாராயணன், மதுரை

முனைவர் த. தனுஞ்செயன், சென்னை

முனைவர் மு.தேவராஜ், சென்னை

எ. தேவேந்திரன், சென்னை

முதுமுனைவர் மா. வசந்தகுமார், சென்னை

முனைவர் இரா.சு.முருகன், தஞ்சாவூர்

தொகுப்பாசிரியர்

முதுமுனைவர் ப. திருஞானசம்பந்தம்

உதவிப் பேராசிரியர்

மன்னர் திருமலை நாயக்கர் கல்லூரி (தன்னாட்சி)

பசுமலை, மதுரை - 625 004.

பதிப்பாளர்

சு. நீத்யானந்த்

நெய்தல் பதிப்பகம்,

சென்னை.

கணினி மற்றும் இதழ் வடிவமைப்புவெப்பாய்ன்

சென்னை - 5.

போன் : 044 - 4207 5836, 2848 3750

அலுவலக முகவரி

எண். 16, சின்னப்பா தெரு.

திருவல்லிக்கேணி, சென்னை - 600 005.

போன் : 044 - 4207 5836 / 2848 3750

மின்னஞ்சல் : neithalp@yahoo.co.in

கரோனா பெருந்தொற்று காலத்திற்குப் பிறகு வெளிவரும் இவ்விதழும் பல்வேறு இலக்கியப் பொருண்மைகளைக் கொண்டதாக அமைந்திருக்கின்றது. இலக்கணம், இலக்கியம், நவீனம், மொழிபெயர்ப்பு உள்ளிட்ட வகைமைகள் சார்ந்த பத்து கட்டுரைகளும், ஒரு நூல் மதிப்புகையும் இவ்விதழ்த் தொகுப்பில் இடம்பெற்றுள்ளன.

யாப்பிலக்கண மரபு சார்ந்தும், தமிழ் அகப் பொருள் மரபு சார்ந்தும் முதல் இரண்டு கட்டுரைகள் உள்ளன. பதினெண்கீழ்க்கணக்கு இலக்கியங்களைப் படைத்த புலவர்களால் அறிமுகப்படுத்தப்பட்டுள்ள புதிய இன்னிசை பா வடிவங்களைக் கண்டறிந்து, அவற்றை ஆராய்வதாகக் 'கீழ்க்கணக்கில் புதுவகை இன்னிசை வெண்பாக்கள்' என்ற கட்டுரை உள்ளது. தொல்காப்பியரால் வகுக்கப்பட்ட பகற்குறி, இரவுக்குறி என்னும் குறியிட மரபு பிற்கால இலக்கண ஆசிரியர்களால் பின்பற்றப்பட்டுள்ளதா? என்பதையும் இம்மரபு சங்க அகப் பாடல்களில் மரபிலக்கண அடிப்படையில் தான் அமைந்துள்ளனவா? என்பதையும் இரண்டாவது கட்டுரை ஆராய்கிறது.

சங்க இலக்கியத்தில் குறிப்பிடப்படும் கலைஞர்களின் வாழ்வியல் இசைக் கலைகளோடு இணைந்தது. சுவத்தர் எனும் இசைக் கலைஞர்களின் வாழ்வியலைச் "சங்க இலக்கியத்தில் சுவத்தர்" என்ற கட்டுரை விளக்குகிறது. நான்காவது கட்டுரை, நாட்டார் மக்களின் நிறைவேறாத ஆசைகளை நாட்டார் பாடல்களின் மூலம் விளக்குகிறது.

வாலியின் பாண்டவர் பூமியில் இடம் பெற்றுள்ள பெண்ணிய வகைமைகளை விளக்குவதாக ஐந்தாவது கட்டுரையும், கர்ணன் சிறுகதையில் இடம் பெறும் அன்பு வெளிப்பாட்டை ஆறாவது கட்டுரையும் எடுத்துரைக்கின்றன. ஏழாவது கட்டுரை மொழிபெயர்ப்பு நெறிமுறைகளைத் தெளிவாக

## புறநானூற்றில் வாய்மொழி வழக்காறுகள்

முனைவர் கு.நளஞ்செயல்

உலக வரலாற்றில் பண்பாட்டுத் தெளிவைக் கொண்டதாக அறியப்படும் எந்த ஒரு சமூகமும் அச்சமூகத்தின் கடந்த கால வரலாற்றைக் கொண்டே அடையாளம் காணப்பட்டுள்ளது. இதன்படி எகிப்து, கிரேக்கம் முதலான நாகரிகங்களின் வரிசையில் வைத்துப் போற்றப்படும் தமிழ்ச்சமூகத்தின் வரலாறானது, அதனுடைய இலக்கியங்கள், கல்வெட்டுப் பதிவுகள், தொல்லியல் சான்றுகள், வாய்மொழி வழக்காறுகள் முதலானவற்றின் அடிப்படையில் இறுதி செய்யப்படுகின்றது. மேலும் பண்டைத் தமிழரின் வரலாற்றை அறிவதற்கு முற்குறிப்பிட்ட சான்றுகளுள் ஒன்றாக உள்ள வாய்மொழி வழக்காறுகள் பெரும்பங்கு வகிக்கின்றன. இவ்வாய்மொழி வழக்காறுகளானவை, நாகரிக வளர்ச்சி பெற்ற அனைத்து சமூகங்களிலும் கடந்த கால எச்சங்களின் தொகுப்புகளாகத் திகழ்வதைக் காண முடிகின்றது. மேலும் இவ்வழக்காறுகள் ஒரு சமூகத்தின் பிற வரலாற்றுப் பதிவுகளோடு கொண்டுள்ள தொடர்பை ஆராய்வது இன்றியமையாத ஒன்றாகின்றது. அவ்வகையில் தமிழ்ச்சமூகத்தின் முதன்மையான வரலாற்றுப் பதிவுகளுள் ஒன்றாக விளங்கக் கூடிய சங்க இலக்கியங்களில் வாய்மொழி வழக்காறுகள் பெற்றுள்ள செல்வாக்கைப் பற்றி ஆராய்வதாக இக்கட்டுரை அமைகின்றது.

சங்க இலக்கியங்களுள் ஒன்றாக விளங்கக் கூடிய புறநானூறானது, பண்டைத் தமிழ்ச் சமூகத்தின் வாழ்வியலை வெளிப்படுத்தும் மிகச்சிறந்த ஆவணங்களுள் ஒன்றாகும். இந்நூலில் தமிழரின் கலாச்சாரம், பழக்க வழக்கங்கள், நம்பிக்கைகள், சடங்குகள் முதலான அனைத்தும் பிற சங்க இலக்கியங்களைக் காட்டிலும் மிகுதியாக இடம்பெற்றுள்ளமை குறிப்பிடத்தக்கது. அவ்வகையில் கி.மு.200க்கும் கி.பி.300க்கும் இடைப்பட்ட இந்நூற்பாடல்கள் குறித்து ஆய்வு செய்த தனித்தமிழ் இயக்க முன்னோடி தனிநாயகம் அடிகளார்,

தமிழர் பண்பாட்டை, ஈராயிரத்து ஐந்தாறு ஆண்டுகளாகத் தமிழ் மக்கள் வளர்த்து வந்த இலக்கியங்களும், கவின்கலைகளும் எடுத்துக்காட்டுகின்றன. ஆயினும் ஒரு சில நூல்கள் மட்டும் தமிழர் பண்பாட்டின் களஞ்சியங்களாகக் குறிப்பிட வேண்டுமாயின் ஐந்து நூல்களைக் குறிப்பிடுவேன். அவை

## திருக்குறளில் உளவியல் சிந்தனைகள்

முனைவர் மோ.பேபி

தமிழ்த்துறை இணைப் பேராசிரியர்  
பெட்ரிசியன் கலைமன்றம் அறிவியல் கல்லூரி,  
அடையாறு, சென்னை-20.

முன்னுரை

உளவியல் அல்லது மனோதத்துவம் என்பது மனதின் செயல்பாடுகள் மற்றும் நடத்தைகளை அறிவியல் முறையில் ஆய்வு செய்து கற்றுப் பயனடைதல் ஆகும். உளவியல் ஞானம் அன்றாட வாழ்வில், அதாவது குடும்பம், கல்வி, தொழில் போன்றவற்றில் மனநலப் பிரச்சினைக்குரிய சிகிச்சைகளை ஆராய்கிறது. உளவியல் ஞானிகள் தனிநபர் மற்றும் சமூக நடத்தைப் பற்றிய மனோ ரீதியான வினைச் செயல்களைப் புரிந்து கொள்ள முயல்கின்றனர். உளவியல் ஆய்வில் துணைத் துறைகள் மற்றும் தன்பயன்பாடுகள் அடங்கியுள்ளன. அவை மானிட வளர்ச்சி, விளையாட்டுகள், உடல்நலம், தொழிற்சாலை, ஊடகம் மற்றும் சட்டம் முதலியனவாகும். மேலும் இது சமூக அறிவியலையும் இயற்கை அறிவியலையும் கலை இலக்கியங்களையும் மனிதப் பண்புகளையும் ஆராய்ந்து ஒருங்கிணைக்கிறது. உளவியல் ஞானிகள் உளவியலைப் பற்றி பயிற்றுவிக்கின்றனர். மேலும் உளவியல் கோட்பாட்டைப் பின்பற்றுகின்றனர்.

உளவியலின் நோக்கம்

மனிதன் தன் வாழ்நாள் முழுவதும் மனிதமனம் வளர்ச்சியடைவதை முக்கியமாகக் கொண்டு, வளர்ச்சி வாய்ந்த உளவியல் மூலம் மக்கள் எப்படி உள்ளனர், எப்படி புரிந்து கொள்கின்றனர், எப்படி செயல்படுகின்றனர் என்பவற்றை அடிப்படையாகக் கொண்டு தன் வாழ்நாளில் எத்தகைய மாற்றத்தை அடைகின்றனர் என்பதை ஆராய்வதே உளவியலின் நோக்கம் ஆகும். இதனை மனிதனின் நுண்ணறிவு அறிவாற்றல், நரம்பு

மண்டலம், சமுதாயம், அறநெறி வளர்ச்சி போன்ற அனைத்தின் மீதும் கவனம் செலுத்தி கண்டுணரலாம்.

கல்வி உளவியல்

கல்வி உளவியல் என்பது மாணவரது கற்றலை அறிவியல் பூர்வமாக விளக்கும் அறிவுப் புலம் ஆகும். இது அறிவாற்றல், அறிவாற்றல் வளர்ச்சி, பாதிப்பு, ஊக்கம், சுயக்கட்டுப்பாடு, கற்றலில் உள்ள பங்கு போன்றவற்றை அறிய உதவுகிறது. கற்றலுக்கு மனித உறுப்புகள், காற்று தேவை. இது கல்வி கற்பித்தல், கல்வித் தொழில் நுட்பம், பாடத்திட்ட வளர்ச்சி, நிறுவனக்கற்றல் சிறப்புக் கல்வி, வகுப்பறை மேலாண்மை, மாணவர் ஊக்குவிப்பு போன்ற கல்வித் திட்டங்களை அறிவிக்கிறது. இக்கருத்துக்களைத் திருக்குறள் எவ்வாறு பிரதிபலிக்கிறது என்பதை கீழ்க்கண்ட பாடலின் வாயிலாகக் காண்போம்.

கற்க கசடறக் கற்பவை கற்றபின்  
நிற்க அதற்குத் தக (குறள்-391)

கற்பதை குற்றமு கற்கவேண்டும் கற்றபின் நாம் எதைக் கற்றோமோ அந்தக் கல்வி வழியில் நடக்க வேண்டும்.

யாதானும் நாடாமல் ஊராமல் என்னொருவன்  
சாந்துணையுங் கல்லாத வாறு(குறள்-397)

கற்றோர்க்கு எல்லா நாடுகளிலும் எல்லா ஊர்களிலும் சிறப்பு என்கிற போது, ஒருவன் சாகும் வரையில் கல்லாமல் காலம் கழிப்பது ஏனோ.

அறிவாற்றல் உளவியல்

இது மனதின் செயல்முறைகளை விளக்குவது, மக்களின் புரிதல், ஞாபகம்,