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3	Microbial Diversity and Lower plants,Gymnosperms,Taxonomy of Angiosperms andEcology	<a href="#">Telugu Academy</a>	1-May-21	-
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5	Establishment of Phytocoenoses on coal mine over burden of pranahitha godavari basin ,Telangana	Procedings of Telangana academy of sciences	2020	-
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<b>8</b>	Mulbery and Vetiver for Phytostabilisation of Mine Over burden :Cogeneration of Economic Products	Elsiwier	2016	ISBN:978-0-12-802830-8
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**Ethno-botanico-medicine  
in the Treatment of Diabetes  
by the Tribal Groups of Visakhapatnam  
District, Andhra Pradesh, India**

10

M. Tarakeswara Naidu, S. Suthari, O. Aniel Kumar,  
and M. Venkaiah

**Abstract**

Diabetes is not a disease; it is a condition and metabolic disorder. An ethnobotanical investigation on antidiabetic plants used by primitive tribes of Visakhapatnam district was conducted through semi-structured questionnaires and personal interaction. The predominant indigenous tribes in the area are Kammara, Kondadora, Khondus, Kotia, Kulia, Malis, Mannedora, Mukhadora, Porja, Reddidora, and Nookadora. A total of 30 plant taxa pertaining to 28 genera and 19 families were recorded for the treatment of diabetes. The routine use of medicinal plants for the treatment of diabetes either separately or in combination with other plant parts or either with honey or cow or goat milk/urine or lemon juice was documented. Mostly the tribal people prepare leaves or whole plant on top priority to cure the diabetes. The present study clearly indicates that the tribal groups have been using traditional knowledge since ancient times to cure or minimize the diabetic condition though hospital facilities were established in the region. The present paper suggests that further chemical and pharmacological investigations are much needed to validate the claims scientifically.

**Keywords**

Diabetes · Ethnomedicine · Medicinal plants · Primitive tribes

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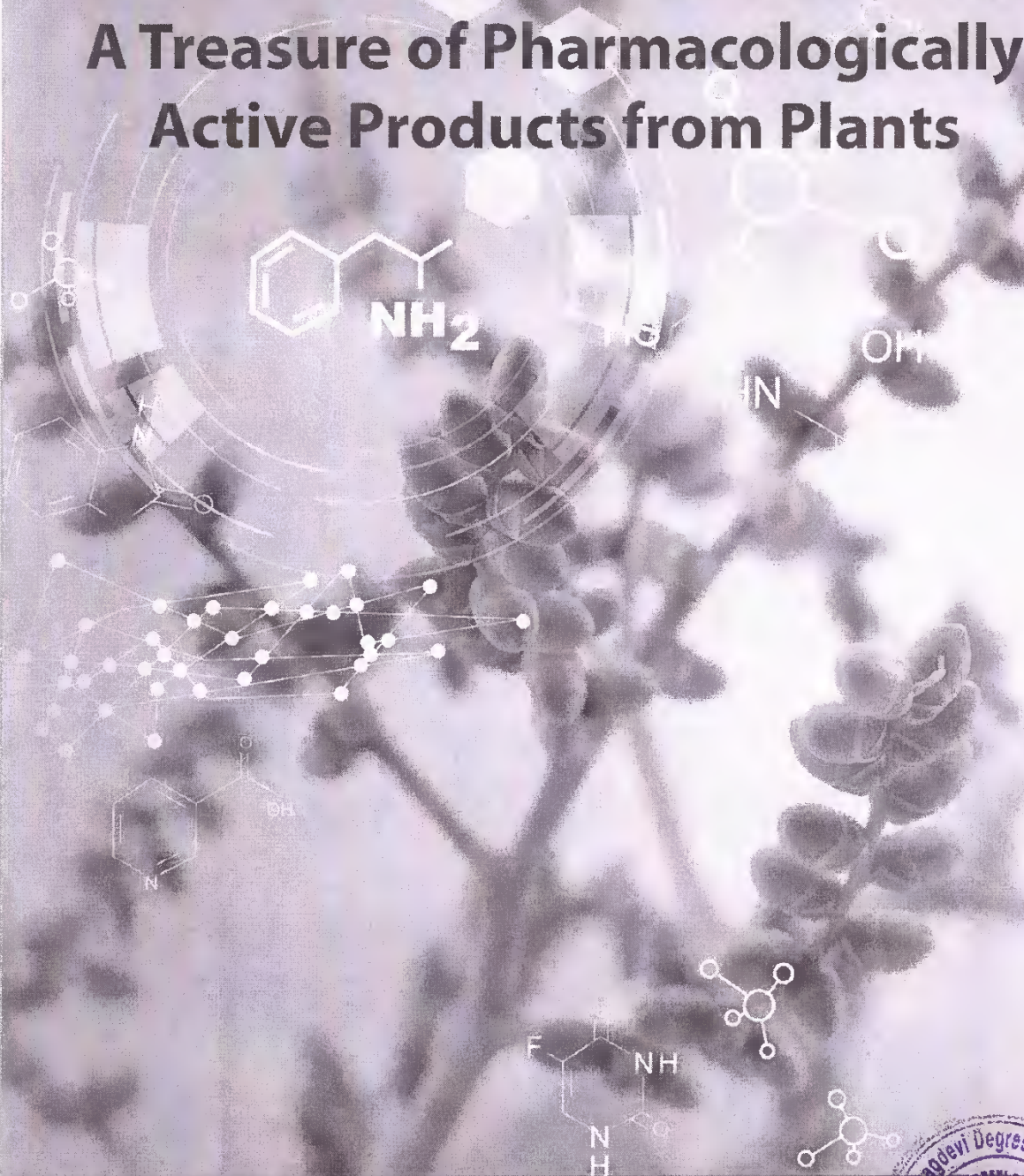
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# PHYTOMEDICINE

## A Treasure of Pharmacologically Active Products from Plants



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## Chapter 9

# Ethnobotanical perspectives in the treatment of communicable and noncommunicable diseases

Sateesh Suthari<sup>a</sup>, Srinivas Kota<sup>b</sup>, Omkar Kanneboyena<sup>c</sup>, Mir Zahoor Gul<sup>d</sup>, and Sadanandam Abbagani<sup>b</sup>

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### 1. Introduction

Health is wealth. Keeping healthy is highly important to any living being, and health is “a condition of perfect physical, mental, and social well-being and not merely the absence of disease or infirmity” as defined by the World Health Organization (WHO, 1946). Multisectoral and interdisciplinary activities will establish a complete healthcare system and is an important public factor to note. The basic health factors decide health status, which includes; (i) pure drinking water, effective sanitary waste management, and environmental conditions; (ii) appropriate food intake with high nutritious value and supply chain; (iii) regulation on transmitted (communicable) diseases; and (iv) a healthy lifestyle that changes the manifestation of nontransmittable (noncommunicable) diseases. A “disease” is an abnormal status that influences the organisms. It is a pathological aspect that indicates distinct characteristic features or expressions. Pathogens are either external or internal factors, and they interrupt the normal body functions. Finally, it leads to an abnormal change in temperature of the body that indicates the health condition of a person. Generally, diseases are categorized into three types: (a) *localized* or *target-oriented* diseases that affect particular and targeted organ of the body, (b) *disseminated* or *dispersal* diseases that spread easily to other organs in the body, and (c) *systemic* diseases that affect the whole body. Each disease has its origin and effects on the body, but some diseases perform differently and it is difficult to diagnose them (e.g., HIV, COVID-19). This leads to the severity of the disease, which spreads and sometimes causes death.

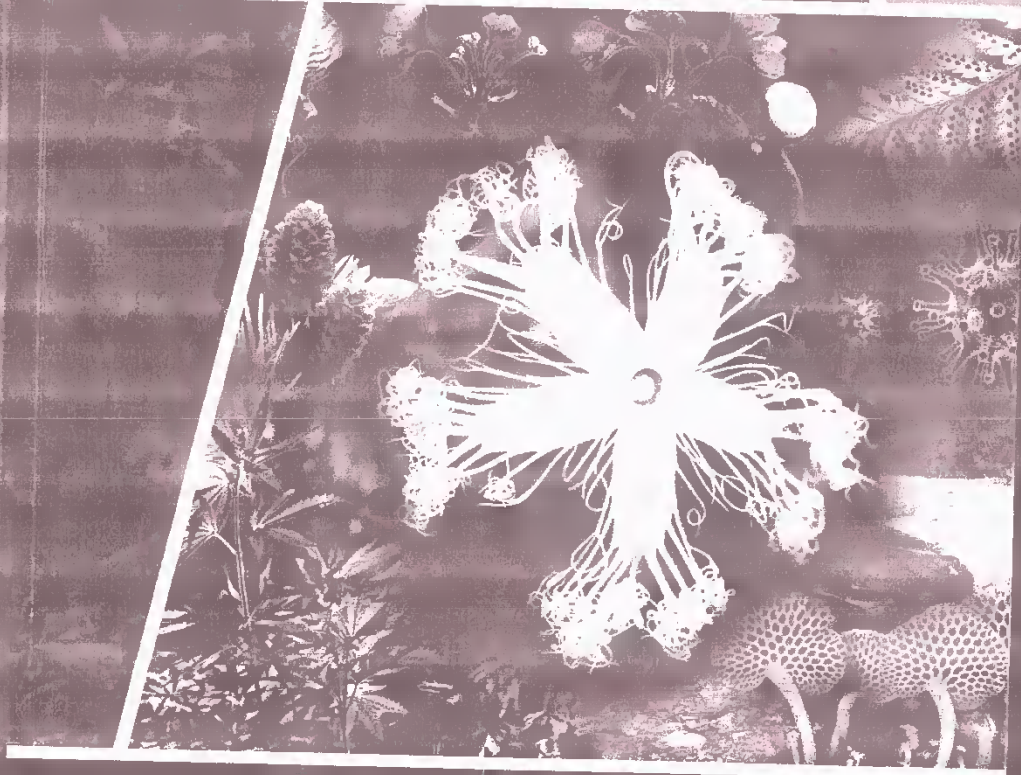
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**First Year**



# Botany

- Microbial Diversity and Lower Plants
- Gymnosperms, Taxonomy of Angiosperms & Ecology

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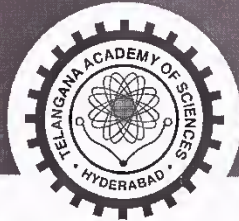
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**ESTABLISHMENT OF PHYTOCOENOSES ON COAL MINE OVER BURDEN OF PRANAHTA  
GODAVARI BASIN, TELANGANA**

Sateesh Suthari<sup>1</sup> and M.N.V. Prasad<sup>2</sup>


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**ABSTRACT**

Coal mine industry ravaged areas are often called as “Industrial deserts” or “Lunar scapes” that does not permit normal growth of plants as such sited dumped with technogenic waste and deficit in plant required resources (moisture and essential nutrients). Restoration of such pe is cost prohibitive and require knowledge of local flora, pant taxonomy and plant biology. USA and Russia have been practicing long term research of “biological recultivation” which has been satisfactorily implemented in large tracts by seeding of perennial grasses, tree and bushy species. In this paper we are presenting a case study on how to establishment of phytocoenoses on coal mine over burden of Pranahita-Godavari basin in the State of Telangana

**Key words:** biological recultivation, industrial deserts, phytostabilization, plant taxonomy

**Corresponding author:** Prof. M.N.V. Prasad, [E-mail: mnvsl@uohyd.ac.in](mailto:mnvsl@uohyd.ac.in)

  
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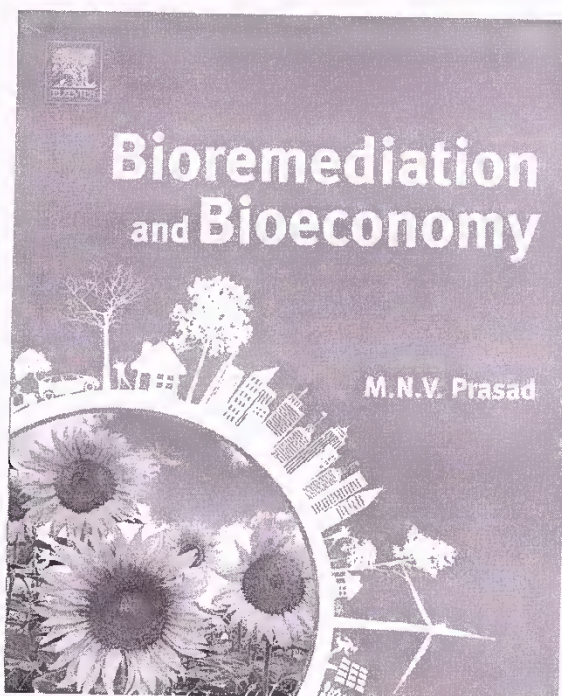
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From M.N.V. Prasad, W. Nakbanpote, C. Phadermrod, D. Rose, S. Suthari, Mulberry And Vetiver For Phytostabilization Of Mine Overburden: Cogeneration Of Economic Products. In: M.N.V.Prasad, editor, *Bioremediation and Bioeconomy*, Amsterdam: Elsevier, 2016, pp. 295-328.

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**Principal**  
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# MULBERRY AND VETIVER FOR PHYTOSTABILIZATION OF MINE OVERBURDEN: COGENERATION OF ECONOMIC PRODUCTS

# 13

M.N.V. Prasad<sup>1</sup>, W. Nakbanpote<sup>2</sup>, C. Phadermrod<sup>3</sup>, D. Rose<sup>1</sup>, S. Suthari<sup>1</sup>

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## 1 INTRODUCTION

India has rich sources of minerals and coal (Figure 1). The Jharkhand state has many mines (Figure 2). The mine waste is a source of toxic metal leachates resulting in acid mine drainage (AMD), ultimately leading to environmental degradation and human health risk (Prasad and Jeeva, 2009). Mine waste is generally unfit for vegetation due to a lack of essential nutrients, drought, extreme pH, and lack of plant health- and growth-promoting microbial consortia (Gonzalez-sangregorio et al., 1991; Wong et al., 1998; Tordoff et al., 2000; Wong, 2003; Freitas et al., 2004; Mendez et al., 2007; Juwarkar et al., 2009; Conesa and Paz, 2011; Rajkumar et al., 2012).

A possible solution for such mine waste and coal mine overburden is phytostabilization (Pandey, 2012, 2013; Prasad, 2007; Maiti, 2007; Prasad and Prasad, 2012). Establishment of vegetation cover with desirable and economically important species would decrease the spread of contamination through wind and water erosion, and decrease the leaching of heavy metals and AMD into the groundwater. Vegetation, possibly aided by microbiota or soil amendments, promotes soil development, nutrient recycling, and the development of microbial communities. It is a non-invasive, cost-efficient method to reclaim mine waste areas and reduce risks of heavy metal pollution and AMD. Recultivation of brownfields has been successful both in temperate and tropical environments. Mycorrhizae and plant growth-promoting bacteria have been researched extensively to aid plants in overcoming these hostile situations (Leung et al., 2013). Mycorrhizae and growth-promoting bacteria can also decrease the amount of soil amendments needed, lowering costs.

## 2 ENVIRONMENTAL ISSUES ASSOCIATED WITH MINE OVERBURDENS

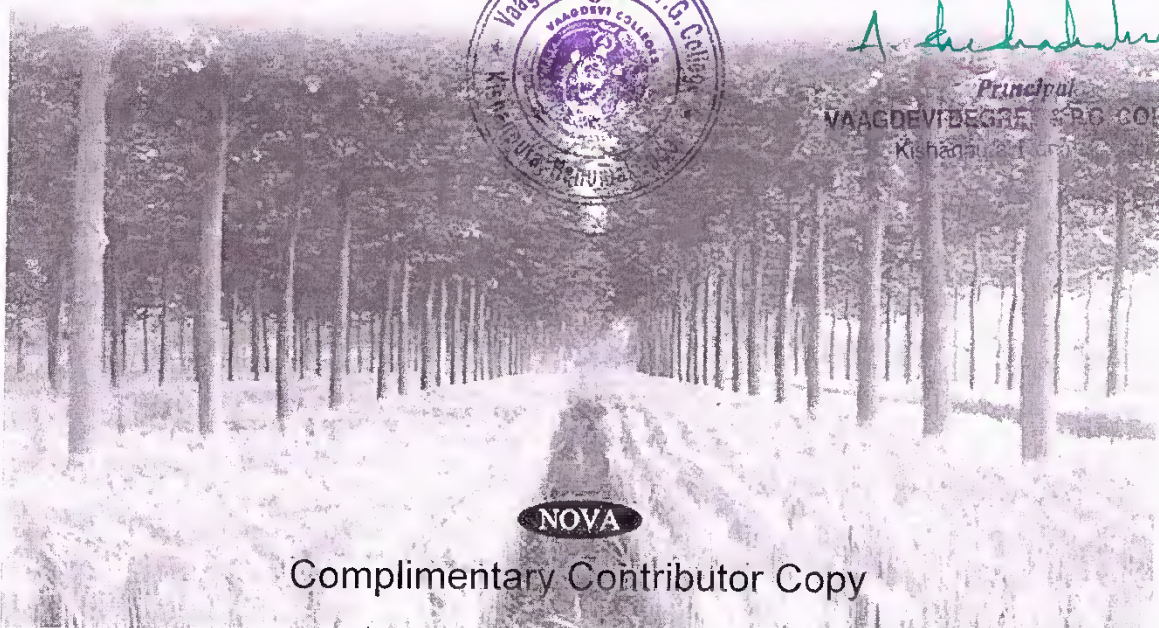
Mining, especially opencast mining, is an intensive process. Unless planned properly it can result in enormous environmental degradation of the mined area. The environmental effects of mine waste include



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# Agroforestry Research Developments



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Life sciences, research acting an important role in the R&D system, for appliances in the multidisciplinary areas, related to living creature. It generates new knowledge and understanding that present the basis for applied research and development. The fundamental research provides consistent information on multidisciplinary area of the biology for application in the life system, more intensive information creation through basic research could be seen as a way to enhance innovative activities. In the present book chapter wise innovations are discussed.

Current Archives in Life Sciences



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## Recent Trends in Life Sciences

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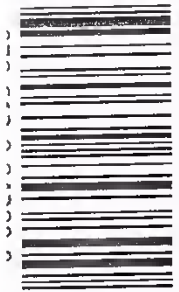
Dr. Pindi Pavan Kumar is currently working as Professor of Microbiology, Dean, UGC development, Director IQAC, EC member in Palamuru University, Mahabubnagar, Telangana State. He is having 23 years of research experience and 11 years of teaching experience. Dr Vandana Rathod working as Professor & Chairman at dept. of Microbiology GUK, Karnataka.



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CHAPTER - 10

ARE NON-TIMBER FOREST PRODUCTS BOON TO PEOPLE  
AND BANE TO FORESTS?

Sateesh Suthari\*, M.N.V. Prasad, Ajmeera Ragan<sup>1</sup> and Vatsavaya S. Raju<sup>1</sup>

Non-Timber Forest Products (NTFPs) are goods of biological origin and derived from the forests or other woodlands other than the timber. Earlier, the forest produce was treated as 'Minor Forest Produce' (MFP). The World Forestry Congress (WFC which holds a meet every six years since 1929 under the auspices of FAO of UN) held in Dehra Dun (India) in 1954, preferred the term 'Non-Timber Forest Products' (NTFPs) over MFP in view of the wide range of importance of these products to humans and the extent of their utility.

The *Rio Summit* 1992 has identified and underscored the role of NTFPs in rural livelihoods and sustainable development. Since then, there was greater focus on these objects and scores of articles and books were written on global NTFPs availability and the role they play in providing succor and subsistence economy. One study has estimated that about 25% of global people (6.2 billion) depend on the forest resources for their subsistence and livelihood (Killman, 2003). FAO (2002) has reported that NTFPs generate employment for 4 m man-days annually. The NTFPs constitute a major trade in terms of millions of US dollars through the export of medicinal plants (689.9), nuts (593.1), ginseng roots (389.3), cork and cork products (328.8), and essential oils (312.5) (Walter, 2003). However, only about 126 species (0.8%) are being used for commerce out of the 3000 NTFP species known (Maithani, 2004). There are about 500 m landless people (nearly 40-60%) whose survival said to depend on supplementary income from NTFPs. Moreover, Asia is the largest harvester of NTFPs in the world (FRA, 2005).

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National Seminar on Digital India: Initiative towards Social Transformation & Empowerment

## Rejuvenating of Agriculture with Information Technology (Digitalisation)

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### INTRODUCTION

Agriculture is one of the important sectors in India and also the pillar of Indian economy, contributing 17% of total GDP, providing employment to over 60% of the population. It is the primary source of livelihood for about 58% of India's population. In the year 1950-51, the population of India is 37 million, while the production of food grains is 50.7 million tonnes which is surplus. As of 2016-17, the population has increased to 1.32 billion, but the food production has increased to only 275.68 million tonnes.

The Indian food industry is poised for huge growth, increasing its contribution to world free trade every year due to its immense potential for value addition, particularly within the food processing industry. The Indian food and grocery market is the world's sixth largest, with retail contributing 70 per cent of the sales. The Indian food processing industry accounts for 32% of the country's total food market, one of the largest industries in India and is ranked fifth in terms of production, consumption, export and expected growth. It contributes around 8.80 and 8.39 per cent of Gross Value Added (GVA) in Manufacturing and Agriculture respectively, 13% of Exports and six per cent of total industrial investment.

During 2017-18 year, food grain production is estimated a record of 284.83 million tonnes. In 2018-19, Government of India is targeting food grain production of 285.2 million tonnes. Milk production was estimated at 165.4 million tonnes during financial year 2017, while meat production was 7.4 million tonnes. As of September 2018, total area sown with kharif crops in India reached 105.78 million hectares.

India is the second largest fruit producer in the world. Production of horticulture crops is estimated at record 314.7 million tonnes (mt) in 2018-19 as per third advance estimates. The total agricultural exports from India grew at a CAGR of 16.45 per cent over FY10-18 to reach US\$ 38.21 billion for the financial year 2018. Between April 2018-February 2019 agricultural exports were US\$ 34.31 billion. India is also the largest producer, consumer and exporter of spices and spice products. Spice exports from India reached US\$ 1.2 billion in 2017-18. Tea exports from India reached a 36 year high of 240.68 million kgs in financial year 2017-18, while coffee exports reached record 395,000 tonnes in 2017-18.

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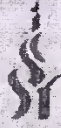
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3	Virtual banking in India	Shroff publishers and Distributors PVT Ltd	2018	ISBN:978-93-5213-493-9.
4	Rural sanitation in Telangana	VRINDA PUBLISHING HOUSE	2017	ISBN:978-93-87418-20-2



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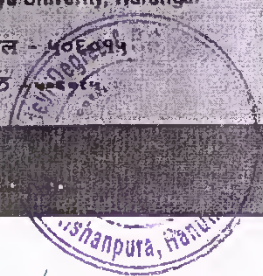
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National Seminar on Digital India: Initiative towards Social Transformation & Empowerment

## E-Learning A Smart Concept towards Digital India

Dr. S. Mahender Kumar<sup>1</sup>, Smt. G. Kalpana<sup>2</sup>

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### Abstract

Over the years, technology has played a key role in shaping our world. Technology is all around in every domain. E-learning is one of the domains which have lots of potentials yet to come. It has eased the process of getting education to great extent. From high-tech school laboratories to virtual classrooms, the ways and means of education have been constantly evolving. Indian education system is no exception in implementing e-learning applications in the field of education to make it better and effective. For this as well as for transforming the knowledge landscape of the country, Indian Government has initiated a mission project named as National Mission on Education through ICT (NME-ICT) in 2009 by utilizing and deploying ICT potential and capabilities for taking the knowledge resources in the form of e-learning applications to the doorsteps of the learners. As a result of the government initiative, various e-learning projects and schemes (MHRD-GOI) have been taken up.

Key Words: Digital India, Pedagogy, High-tech, Virtual Lab, Multimedia.

### 1. INTRODUCTION

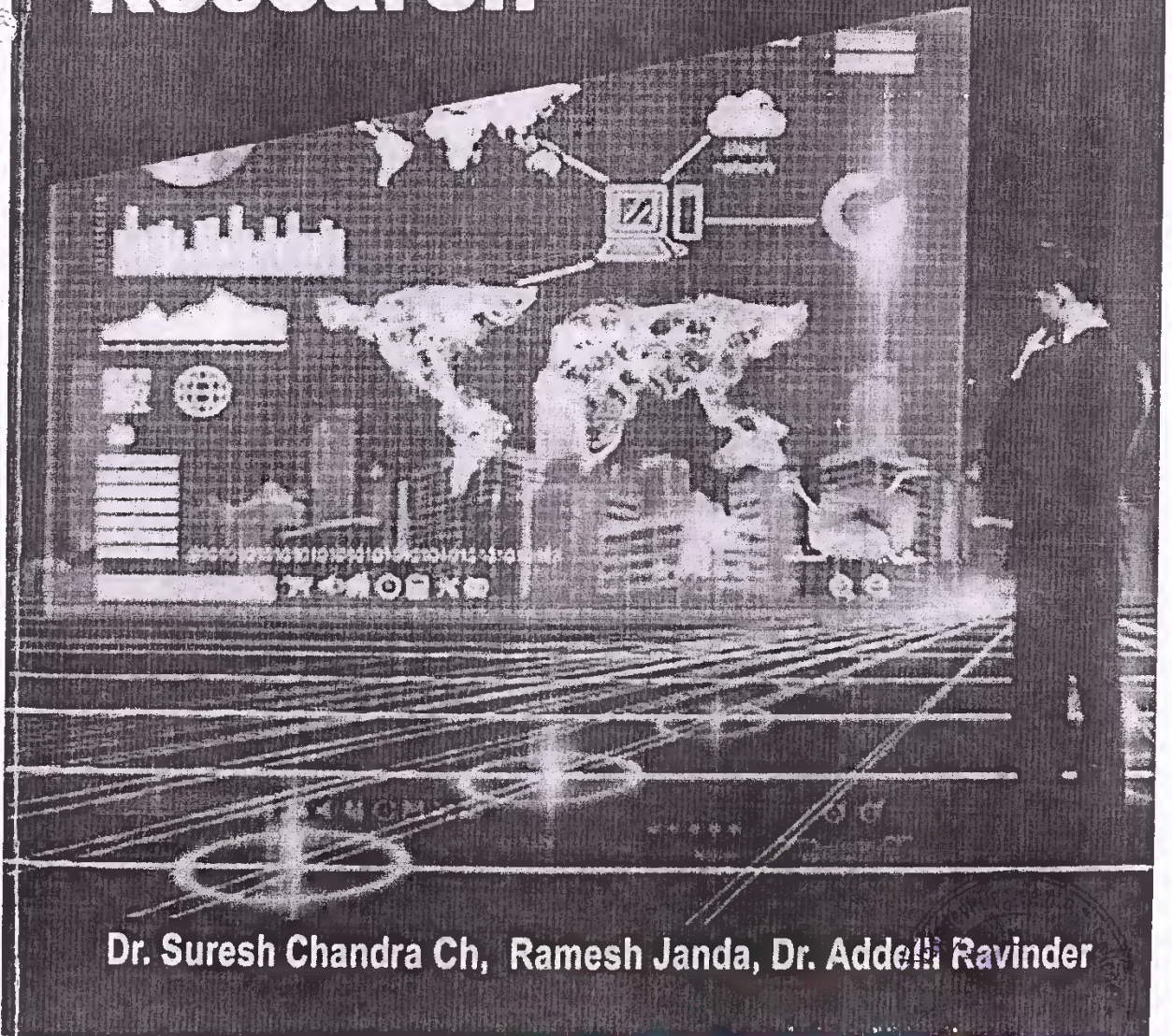
E-Learning means Electronic Learning. The use of electronic media and information and communication technologies in education, teaching and training is called E-learning. E-Learning is the method of gaining knowledge by attending the classes online, taking tests on a website and getting approved certificate of the course. The topics of interest may vary from person to person in which the courses are available. The concept of e-learning is as old as a decade or two but its penetration has grown in the last few years. The advancement in technology and easy accessibility of internet has opened a brighter side of e-learning in India. Once the technical errors are sorted out, the future of e-learning seems invariably strong for it is one of the easiest sources to learn management courses as well as technical courses and this will play an important role towards Digital India.

To make education richer and more effective teachers through Power Point Presentation deliver their lessons. This involves a detailed and complex preparation on the part of the teacher. In ancient days students were taught in a Gurukul where they were taught by the Gurus, same as in the typical classroom was once characterized by students sitting through hour long teaching monologues but this system was replaced by modernized culture, this technology is making life easier for both educators and students. There are five reasons why online learning can be more effective than enrolling in a face to face traditional training course.

*A. Sridharan*



# Empirical Studies in Social Science Research



Dr. Suresh Chandra Ch, Ramesh Janda, Dr. Addella Ravinder

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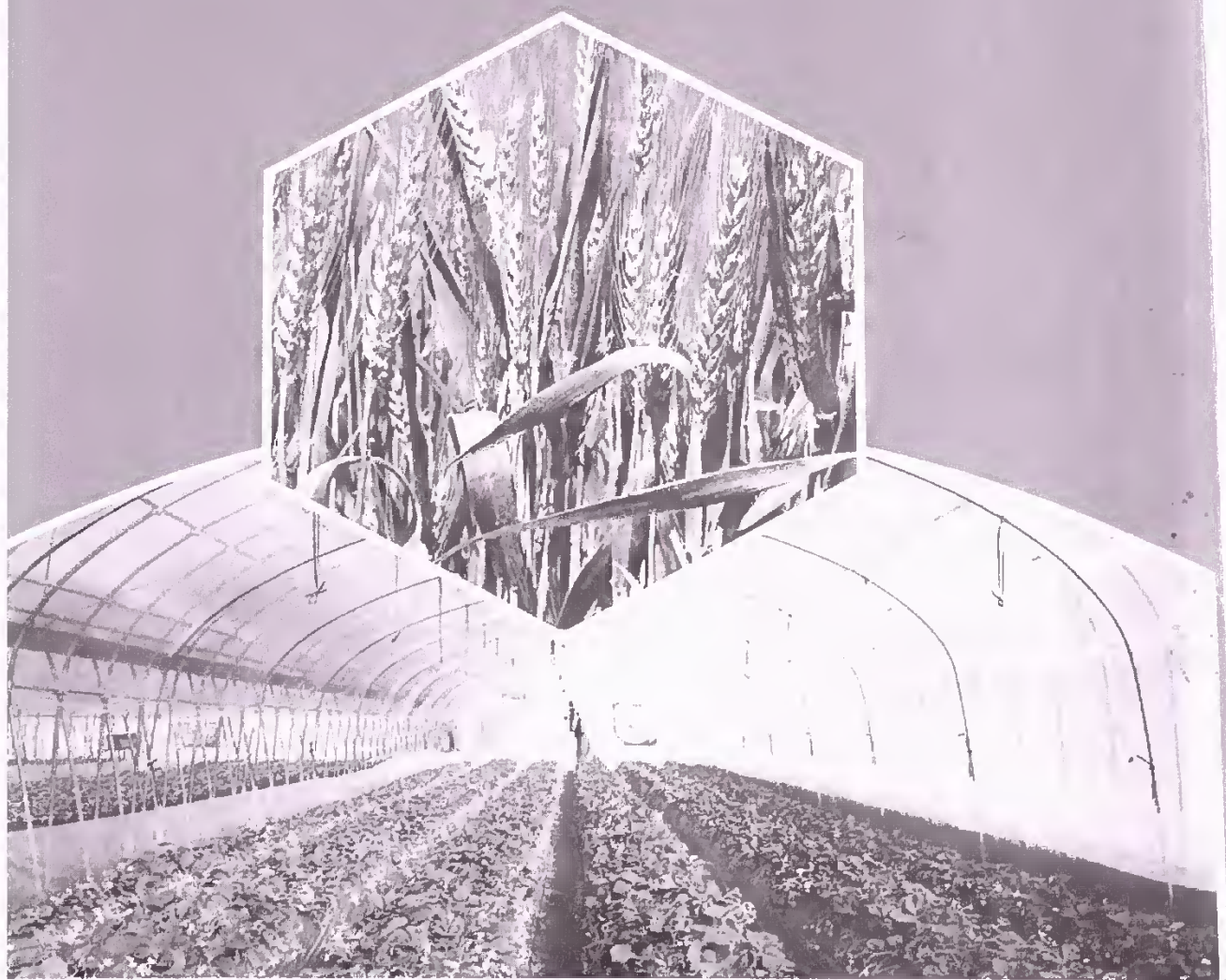
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7	Unit-11: Concept of Correlation, Unit-12: Biserial, Point-Biserial, Tetrachoric Correlations, Unit-13: Partial and Multiple Correlations	<u>Dr B R Ambedkar Open University, Hyderabad</u>	2016	-
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<b>9</b>	Corporate Social Responsibility in India - Quest for Socio-Economic Transformation	<u>Centre for Research in Rural and Industrial Development (CRRID), Chandigarh</u>	2016	978-81-85835-79-9
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# Policy and Technological Options for Doubling of Farmers' Income



Editors  
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# Curbing Farmer Suicides through Digital India – A Model for Farmers' Sustainability

Suresh Chandra Ch

## Introduction

India, being one of the largest producers of farm produce, is often considered as power house in terms of its productivity. Being world's 6<sup>th</sup> largest in terms of sales of food and grocery, it also had the distinction of being the largest producer of milk and several pulses. The farm industry in India contributes 13 per cent towards exports.

The other side of coin reflects the downfall of farming scenario in India. The farm sector has been striving to reach survival despite its 'contribution of being the largest employment provider and it has progressively declined to less than 15 per cent due to the high growth rates of industrial and services sectors. The sector's importance in India's economic and social fabric goes well beyond this indicator. Further, majority of farmers in India own as little as two acres of land. Cultivation on such a small area is not economically feasible. Such small farmers have become vulnerable. Exploitation by the middlemen is the reason put forth for not getting the best price for the produce of the agriculturists. The third farm loan waiver has been implemented by many states to lessen the burden farmers,



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Policy Report on the Hotel Industry Sector

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# Globalisation Market and Rural Consumers



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# Fake Branding in Pharmaceuticals

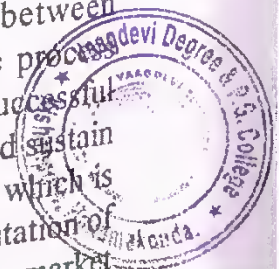
## A Study of Select Rural Villages in Telangana Region

SURESH CHANDRA Ch

### Introduction

Consumer is the most influencing personality for determining the success or failure of products and services whose purchasing is often influenced strongly by internal and external factors and often provide room for the companies to effectively influence and motivate them to purchase. The branding is one of the valuable components of marketing of the products and services which involve reinforcing a good reputation, encourage loyalty, assure quality, convey a perception of greater worth, allowing a product or service to be priced higher and grant the buyer a sense of affirmation and entry into an imaginary community of shared values. Rural consumers in India account for more than 70 per cent of total population who get easily influenced by the marketers because of low literacy level, occupation, geographic location and lack of better exposure to media.

Fake brands are part of a pervasive material and it is regarded as an inherently second rate and potentially shady activity in practice. The transactional properties of fake brands are based on material properties, log and label included, and interpersonal relationships between manufacturers, buyers, and consumers. Fake branding is the process whereby the companies encompass the success of existing successful brand names to their products and services in order to grow and sustain in the market. Fake branding involves introducing the product which is not genuine with an aim to achieve sales by going with the reputation of the existing brands. The unregistered fake brands...



# EFFICACY OF FINANCIAL INCLUSION POLICIES AND WAY AHEAD

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Branch  
Access

Saving  
Linkage

Financial  
Inclusion

Financial  
Literacy

Credit  
Linkage

Editors  
Sher Singh Sangwan



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# Impact of Service Quality on Financial Inclusion in Rural Branches of SBI

*Suresh Chandra Ch*

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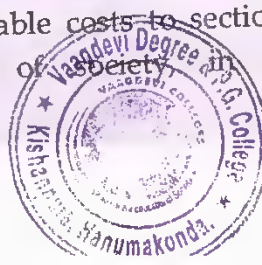
## I. Introduction

The rising competition in the service industry improves the service quality upto excellence and uncompromising standards. The different dimension of services helps the consumers to assess its quality and evaluate the same. Despite the technical and functional quality, the perceptions of the quality are equally important to propogate/promote the credibility of services offered by the firms. Measuring the quality of a service can be a very difficult exercise. SERVQUAL examines five dimensions of service quality which include tangibility, reliability, responsiveness, assurance and empathy.

Tangibles are the physical features of the service being provided, such as the appearance of the service facility, cleanliness of the facilities, and the appearance of the personnel. Reliability refers to the ability to provide the service as it was promised on a regular basis. Responsiveness is the willingness to help customers and provide prompt service. Assurance is defined as employees' knowledge of courtesy and the ability of the firm and its employees to inspire trust and confidence. Whereas Empathy is an additional plus that the trust and confidence of the customers and at the same time increase the loyalty.

## Overview of Financial Inclusion in SBI

Financial inclusion (FI) or inclusive financing is the delivery of financial services at affordable costs to sections of disadvantaged and low-income segments of society. In contrast to financial



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# CORPORATE SOCIAL RESPONSIBILITY IN INDIA

## Quest for Socio-Economic Transformation



**Editors**  
**Ranjit Singh Ghuman**



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# Emerging Trends in Csr Towards Swachh Bharat Abhiyan - A Study

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Email: Rekha.kothakonda20@gmail.com<sup>1</sup>, suresh.scholar@gmail.com<sup>2</sup>

## Abstract

Corporate social responsibility has changed its dimension from philanthropy to responsibility of enterprises resulting towards their impact on society. The social, environmental, ethical concerns of the enterprises through CSR are expected to achieve the vision of making the nation to reach socio economic and human empowered sustainable stage. Swachh Bharat Abhiyan, the flagship programme of the NDA-2 government has not only obtained the reputation as innovative program but also regarded as a milestone step in the process of making cleaner India. The recent mandate by the Government of India in the month of September, 2015 made extension in the existing CSR activities by including Swachh Bharat Abhiyan under the Schedule VII of the Companies Act, 2013. The decision by the Government has opened the avenues for the corporate giants who fall under the purview of the CSR mandate to invest in the making of clean and hygiene India. In view of this emerging scenario, the present paper critically examines the emerging trends in CSR towards Swachh Bharat Mission (SBM) with special reference to public health and sanitation with reference to select companies. The paper also makes an investigation on the key areas under Swachh Bharat where the CSR investment would be better utilized and also makes insights on the problems and prospects in the implementation of CSR activities in Public Health and Sanitation. The paper is descriptive in nature. The study is based on secondary data sources pertaining to select companies and also the CSR reports, annual reports of select companies are also taken into consideration.

Key words: BPL, CSR, net profit, ODF, UNICEF

## 1. CONCEPTUAL OVERVIEW OF CORPORATE SOCIAL RESPONSIBILITY

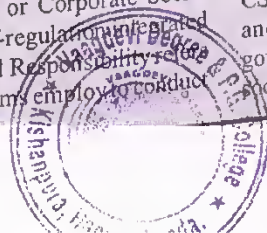
Social Responsibility of business refers to what a business does over and above the statutory requirement for the benefit of the society. Ashraf Ali et al. (2012) opined "responsibility" emphasizes on the business to have some moral obligations towards the society. Corporate Social Responsibility, known as Sustainable Responsible Business, or Corporate Social Performance, is a form of corporate self-regulation integrated into a business model. Corporate Social Responsibility refers to the strategies that Corporations or firms employ to conduct

their business in a way that is ethical, society friendly and beneficial to community in terms of development. The European Council defines Corporate Social Responsibility as "the responsibility of enterprises for their impacts on society". To completely meet the social responsibility, enterprises should have a process to integrate social, environmental, ethical concerns into their business operations and work out strategy in close collaboration with their stakeholders.

The WBCSD defines corporate social responsibility as "the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large". UNIDO views corporate social responsibility as a process which integrates social and environmental concerns of business operations. Corporate social responsibility is generally understood as a way through which a company achieves balance in economic, environmental and social imperatives, while at the same time addressing the expectations of shareholders and stakeholders.

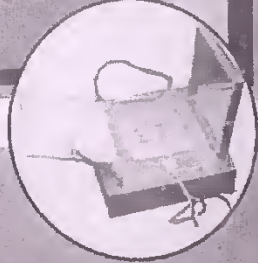
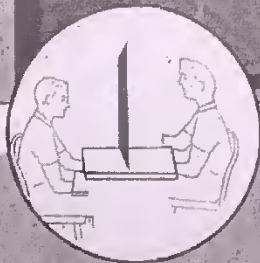
Corporate social responsibility has been extracted from several theories of management. Three theories especially contributed the base for CSR are Utilitarian theory which consider corporation as a part of the economic system aimed at profit maximization, managerial theory focus on corporate social performance, accountability and social responsibility and relational theory which states that, relations between the firm and the environment are at the center of the analysis. The aim of social responsibility is to create higher standards of living, while preserving the profitability of the corporation.

The modern concept of corporate social responsibility has evolved in 1960s as an attempt to link business with society. The underlying belief in this era was to utilize the resources in a socially responsible manner, i.e., the promotion of social welfare along with the economic development. Further, this period is dominated by mixed economy paradigm. In 1970s, CSR was identified from pure economical perspectives. In 80s and 90s, new concepts like stakeholder theory, corporate governance, and corporate social performance, corporate social innovation were recognized. In the 21st century, a



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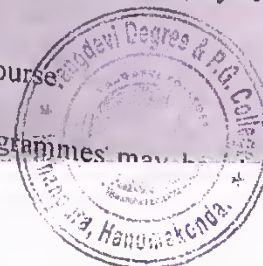
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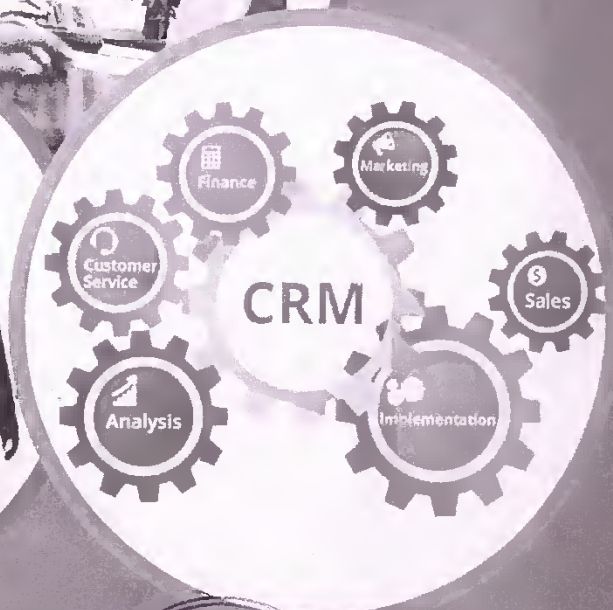
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# SERVICE QUALITY AND CUSTOMER RELATIONSHIP MANAGEMENT IN 21<sup>st</sup> CENTURY: EMERGING ISSUES AND CHALLENGES



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**SERVICE QUALITY IN CORPORATE SOCIAL RESPONSIBILITY – A STUDY ON PUBLIC SECTOR ENTERPRISES IN INDIA**

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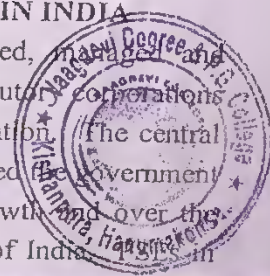
**ABSTRACT**

Public Sector Enterprises (PSEs) in India have been playing strategic role in the economic development both in pre-independence and post-independence era. PSEs in India were set up with the objective of achieving inclusive consequently; PSEs have been pioneers in implementing corporate social responsibility (CSR) initiatives towards community growth and development while achieving their commercial mandate. Over the years, most of the PSEs have consciously and extensively promoted CSR activities including providing employment assistance to the weaker sections, facilities to the employees & their families and contributing to the causes and activities dealing with natural disaster initiatives, community development and women empowerment. The present study is an attempt to integrate the Service Quality dimension in the Corporate Social Responsibility. The studies made by Poolthong et al.(2009), Arikan et al.(2013) and Tingchi Liu(2014) provided the base to understand the service quality dimension in CSR where Service quality acts as a mediator between company stake holders and the image of the company in the society in turn provide sustainability of company's performance in the long run. In view of this scenario, the present study focuses on the need and importance of incorporating service quality in the target areas of CSR and further focuses on the challenging areas and road ahead for CSR through effective utilization of Service quality dimension. The study covers the CSR activities implemented in public sector enterprises in general and in particular to Service quality dimension in CSR practices in Singareni Collieries Company Limited.

Key words: SRs, empowerment, ethics, PSU, stake holders, welfare.

**1) OVERVIEW OF ROLE OF PUBLIC SECTOR ENTERPRISES IN INDIA**

Public sector enterprises (PSEs) which have been established, controlled by the Government of India under the Companies Act or statutory corporations have been playing pivotal role in the economic development of the nation. The central government holding of in paid up share capital of 50 percent has provided to use the PSEs as an instrument for attain self-reliant economic growth and over the years, its role has been steadily increased in the sustainable progress of India. India have been...



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# CORPORATE SOCIAL RESPONSIBILITY IN INDIA -EMERGING ISSUES AND CHALLENGES



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## Corporate Social Responsibility in Commercial Banks in India – A Comparative Study

Suresh Chandra Ch.

### Overview of Corporate Social Responsibility

The World Business Council for Sustainable Development defines CSR as “the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large.” According to the United Nations Industrial Development Organisation (UNIDO), “Corporate social responsibility is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders. CSR is generally understood as being the way through which a company achieves a balance of economic, environmental and social imperatives (Triple-Bottom-Line Approach), while at the same time addressing the expectations of shareholders and stakeholders. In this sense it is important to draw a distinction between CSR, which can be a strategic business management concept, and charity, sponsorships or philanthropy.

As per the Gazette notification of Ministry of Corporate Affairs published on 27<sup>th</sup> February, 2014, ‘Corporate Social Responsibility’ is not limited to

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# Emerging Trends in Commerce and Economics

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Dr. B. Parashuramulu  
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**EMERGING TRENDS IN CSR TOWARDS SWACHH BHARAT ABHIYAN - A STUDY**

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**Abstract**

Corporate social responsibility has changed its dimension from philanthropy to responsibility of enterprises resulting towards their impact on society. The social, environmental, ethical concerns of the enterprises through CSR are expected to achieve the vision of making the nation to reach socio economic and human empowered sustainable stage. Swachh Bharat Abhiyan, the flagship programme of the NDA-2 government has not only obtained the reputation as innovative program but also regarded as a milestone step in the process of making cleaner India. The recent mandate by the Government of India in the month of September, 2015 made extension in the existing CSR activities by including Swachh Bharat Abhiyan under the Schedule VII of the Companies Act, 2013. The decision by the Government has opened the avenues for the corporate giants who fall under the purview of the CSR mandate to invest in the making of clean and hygiene India. In view of this emerging scenario, the present paper critically examines the emerging trends in CSR towards Swachh Bharat Mission (SBM) with special reference to public health and sanitation with reference to select companies. The paper also makes an investigation on the key areas under Swachh Bharat where the CSR investment would be better utilized and also makes insights on the problems and prospects in the implementation of CSR activities in Public Health and Sanitation. The paper is descriptive in nature. The study is based on secondary data sources pertaining to select companies and also the CSR reports, annual reports of select companies are also taken into consideration.

Key words: BPL, CSR, net profit, ODF, UNICEF

**1) Conceptual Overview of Corporate Social Responsibility**

Social Responsibility of business refers to what a business does over and above the statutory requirement for the benefit of the society. Ashraf Ali et al. (2012) opined "responsibility" emphasizes on the business to have some moral obligations towards the society. Corporate Social Responsibility, known as Sustainable Responsible Business, or Corporate Social Performance, is a form of corporate self-regulation integrated into business operations.



# Empirical Studies in Social Science Research



Dr. Suresh Chandra Ch, Ramesh Janda, Dr. Addelli Ravinde

# Empirical Studies in Social Science Research



**Dr. Surish Chandra Chitla** is a Management Faculty specialized in Marketing Management. He obtained B.Sc.(Statistics) Degree in 2004, MBA Degree in 2006, M.Phil Degree in the year 2009 and Ph.D degree from Kakatiya University in the year 2013. He is a recipient of UGC NET Junior Research Fellowship and Dr. S. Radhakrishnan Post Doctoral Fellowship from University Grants Commission, New Delhi. He served various management institutions and also been Visiting Faculty to reputed Business Schools such as IIM, Warangal, NITM, Hyderabad and D.B.R. Ambedkar Open University, Hyderabad. He got over 12 years of Teaching experience. His areas of interest are Marketing Research and Analytics, Statistics, Operations Research, Research Methodology and Consumer Behaviour. He has published over 30 articles in various reputed National and International Journals. He has attended over 40 National and International Conferences and published 2 books. He is a life member of various professional bodies including Telangana Commerce Association and also served as NITM Resource Person, served as Scientific Research Officer, member of various committees in Warangal, New Delhi. He got over 10 citations for his publications and 2 articles from articles indexed by Google Scholar.



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**Dr. Adresh Ravinder** is an Assistant Professor (Faculty) in the Department of Economics, University of B. College (Kakatiya University), Mahabubnagar of Warangal District. He completed his School in Nandipet village, Chigurumamidi Mandal, Rameswaram District and his Intermediate from A.P.S.V. School, Junior College, Husnabad. He completed his Bachelor's with major in Economics from D.B.R.A.U., Siddipet. Then, he joined Kakatiya University for his Masters in Economics, which he completed with distinction in the year 2008. Dr. Ravinder has also qualified UGC-NET in Economics, Hyderabad.

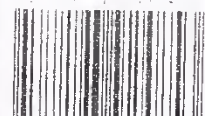
He worked as a project fellow for a Major Research Project (UGC-MRP) on "Status of Informal Sector in India - A Study in Andhra Pradesh". He was awarded Doctor of Philosophy in 2016 by Kakatiya University, Warangal for his research work titled "Employment Opportunities and Challenges of SC and ST Communities in Urban Informal Sector - A Study in Telangana". He has been a full-time researcher in Economics and attended 16 National Seminars and 4 International Conferences so far. He has published 12 research articles in various journals in National and International journals.

Dr. Ravinder is the founder of Buddha Research and Development Organization (BRDO), the motto of which is to educate rural youth on employment and empowerment. He is also a life member of Telangana Economic Association (TEA).



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National Seminar on Digital India: Initiative towards Social Transformation & Empowerment

## Rejuvenating of Agriculture with Information Technology (Digitalisation)

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### INTRODUCTION

Agriculture is one of the important sectors in India and also the pillar of Indian economy contributing 17% of total GDP, providing employment to over 60% of the population. It is the primary source of livelihood for about 58% of India's population. In the year 1950-51, the population of India is 37 million, while the production of food grains is 50.7 million tonnes which is surplus. As of 2016-17, the population has increased to 1.32 billion, but the food production has increased to only 275.68 million tonnes.

The Indian food industry is poised for huge growth, increasing its contribution to world trade every year due to its immense potential for value addition, particularly within the food processing industry. The Indian food and grocery market is the world's sixth largest, with retail contributing 70 per cent of the sales. The Indian food processing industry accounts for 32% of the country's total food market, one of the largest industries in India and is ranked fifth in terms of production, consumption, export and expected growth. It contributes around 8.80 and 8.39 per cent of Gross Value Added (GVA) in Manufacturing and Agriculture respectively, 13% of India's exports and six per cent of total industrial investment.

During 2017-18 year, food grain production is estimated a record of 284.83 million tonnes. In 2018-19, Government of India is targeting food grain production of 285.2 million tonnes. Milk production was estimated at 165.4 million tonnes during financial year 2017, while meat production was 7.4 million tonnes. As of September 2018, total area sown with kharif crops in India reached 105.78 million hectares.

India is the second largest fruit producer in the world. Production of horticulture crops is estimated at record 314.7 million tonnes (mt) in 2018-19 as per third advance estimates. The total agricultural exports from India grew at a CAGR of 16.45 per cent over FY 10-18 to reach US\$ 38.21 billion for the financial year 2018. Between April 2018-February 2019 agricultural exports were US\$ 34.31 billion. India is also the largest producer, consumer and exporter of spices and spice products. Spice exports from India reached US\$ 1.5 billion in year 2017-18. Tea exports from India reached a 36 year high of 240.68 million kgs in financial year 2017-18, while coffee exports reached record 395,000 tonnes in 2017-18.





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# Challenges and Opportunities of Startups Issues Related to Indian Startups

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G.Satheesh Raju Assistant Professor SR Engineering College

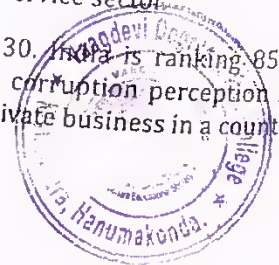
## Introduction

Startups are new businesses. The kinds of new startups that offer opportunity for growth and employment generation are generally considered to be those that are innovating, driven and looking to scale. In years, the Indian startup ecosystem has taken off and has matured. Driven by factors such as available funding, consolidation activities by a number of firms, evolving technology space and a burgeoning demand within the domestic market has led to the emergence of startups. The numbers on startups speak volumes about the emergence of startups, it is projected that by 2020 there will be 11,500 firms from 3,100 startups in 2014. The trend is revolutionary, and it's going to change the way the markets are working today in India. India has become a start up nation. In 2010 the Indian technology start up landscape has seen a tremendous growth towards creation of innovative startups and India has clearly evolved to become the third largest of technology startups in the world.

## Startup ecosystem in India

India is today undertaking a fundamental shift towards startup friendly policies and a business friendly environment. To do so, India also needs to nurture its entrepreneurial ecosystem to create more startups as well as opportunities. Startup Ecosystem comprises entrepreneurs, different kinds of financial and financial support such as debt finance, equity investments and grants, and non-financial support including incubation, acceleration support, mentoring and technical experts. It also includes the government policies and programs relevant to startups, academia and other organizations and firms that in different ways interact with or support startups. The start up ecosystem has emerged by starting National Science and Technology Entrepreneurship Development Board (NSTEDB) in 1982. The change in the entrepreneurial ecosystem started to change in 1995-96 after the liberalization of the economy and with more people moving to US and Europe as IT professionals India gained a lot of experience and expertise. India's confidence to deliver high quality technology products and services grew especially in the technology service sector.

Ease of doing business index by World Bank has ranked India 130. India is ranking 85 in transparency international corruption perception index, 2013. TI Doing Business index considers the ease of starting and running a private business in a country.



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8.34

7.35

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10.03

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# A STUDY ON UNIVERSAL INSURANCE PROGRAM FOR RURAL INSURANCE DEVELOPMENT

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## ABSTRACT

...of a challenging environment in 2015 with moderate global economic growth of ... direct premiums written grew 3.8% in real terms, up from 3.5% growth in 2014. ... in nominal US dollar (USD) terms, global premiums were down by 4.2%, due to ... depreciation against the USD, particularly in the advanced markets. There was ... slowdown in the life sector in 2015, with global premium growth dipping to 4.0% ... 4.3%, due to weaker performance in the advanced markets. On the non-life side, ... growth in the advanced markets of Asia, and improvement in North America and ... Europe, contributed to a 3.6% increase in global premiums, up from 2.4% growth ... 2014. The sigma includes a special chapter on the slowdown in global trade in recent ... and its possible impact on the insurance sector; Life insurance dominates the global ... market, accounting for 59.7% of the market's value, Europe accounts for 39.3% ... the universal insurance market's value. With the widening of the economy, the demand ... new types of insurance products emerges. Insurance now extends not only to product ... but also to service industries including finance. It is equally true that growth itself ... is stimulated by insurance. The global consolidation of the financial services sector is in ... driven by acquisition activity. Companies competing for a greater share of ... funds are seeking quick access to new markets, new products and new channels ... contribution, both globally and economically. Even though the insurance industry is ... more problems in International markets so, there is need to frame a common program ... Universal Insurance. Universal Insurance Program have been a hot topic over the ... few years among insurance buyers in Europe, the united states & elsewhere global ... deliver on three C's that all professional buyers focus on coverage, control &

## INTRODUCTION:

Life insurance dominates the global insurance market, accounting for 59.7% of the market's value. Europe accounts for 39.3% of the global insurance market's value. AXA generates 14.1% of the universal insurance market's value. With a huge population base and large

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2016

# Core Banking Solutions in India - A Study on Indian Bank

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## INTRODUCTION

The major objectives of bank automation are providing better customer service to its customers, paperless book keeping and prompt decision making that leads to improved productivity and profitability. The Rangarajan Committee report in early 1980s was the first step towards computerization of banks in India. It started the branch level automation making use of the available MSDOS based stand alone computers. This initiative was taken by the banks on the basis of first Rangarajan committee report on computerization submitted in the year 1984. ALPMS (advanced ledger posting machines) were in fashion in those days. Another committee was appointed in 1988 under the chairmanship of Dr. Rangarajan, the then deputy governor of RBI to slate down a perspective plan on automation of banks in a five year plan. This paved way to the implementation of multi user Total branch automation packages running on a LAN (local area network), either on a Netware or UNIX operating system with the implementation of TBA, banks started to offer the facilities of executive customer Terminal - single flow transaction, online and off site ATMs, Tele banking etc.

It was only in the early 1990s the banks started thinking about trying up disparate branches together to facilitate information sharing.

With the advent of new generation private sector banks in India during the 1993-1996, the real bank market started to offer anywhere and anytime banking facilities to its customers. This was possible for them mainly owing to fact that they opted for the implementation of a WAN (wide area network) based centralized banking solution, rather than a LAN based branch banking solution to net their number of branch outlets.

With the globalization and liberalization of Indian market and with the enactment of TRAI during the late nineties, these happened a drastic reduction in IT cost. Development in Tele communication, network structure facilities and reduction in cost of hard ware and networking changed the mindset of the banks in India to try the CBS option.

Core banking became possible with the advent of computer and Tele communication technology which allowed information to be shared between bank branches quickly and efficiently.

The first wave in banking technology began with the use of ALPM (advanced ledger posting machines) in the 1980s. The RBI advised all banks to go for massive computerization at the branch level.

The second wave of development in late 1980s came total bank automation (TBA). This automated both the front end and back end operations within the same branch.

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77.	<b>Banking System In India and its Impact on Rural Economy</b> - <i>Iyfana Begum</i>	382
78.	<b>Cashless Transaction - A Study of Small Traders</b> - <i>Bahuddin Ahmed, Md. Sadat Shareef</i>	386
79.	<b>Role of Information Technology in Banking Sector</b> - <i>Gopu Anil Kumar</i>	389

## Demonitization Issues and Challenges

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### Introduction

Currency demonitization is almost as old as the currency. The biggest demonitization phenomenon of modern currency was introduction of Euro, when all EU nations demonitized their currency and started using Euro. In modern world many countries including developed and developing countries have done it like US, Australia, USSR, India, Pakistan, multiple African nations like Nigeria and Ghana have done it. To understand demonitization, we have to understand currency.

Currency is a legal tender guaranteed by sovereign. It demonstrates authority of a sovereign. In olden days it was representative of the king and his authority as sovereign. Higher the number of state accepting the currency of a king, higher was his stature among kings. This hasn't changed since then. Today currency, apart from being the means of transaction represents the identity and independence of a country. Universal acceptance of dollar, pound and euro as international currency shows the clout that these countries have on businesses worldwide. So, every time, a king acquired a new state, or a new king inherited the throne, he resorted to demonitize the coins of previous kings. It had small impacts as the business volumes were low compared to modern trade. The coins that were the form of currency were made of precious metals only.

In modern world, after the paper currency was introduced, the demonitization has been a routine phenomenon primarily to take currency, which is no longer in use, out of circulation like lower or exceptionally higher denomination currency. 2nd most common reason for demonitization is counterfeit currency. New currency which better demonstrates the spirit of sovereign nation usually keeps replacing the old currency.

The latest initiative of the BJP government is the direct result of the injury caused to the Indian democracy and its individuals by the amount of corruption and black money taking place in India. On the heels of The Undisclosed Foreign Income and Assets (Imposition of Tax) act of 2015, and the Income Disclosure Scheme of 2016, the Narendra Modi government has announced demonitization of Rs 500 and Rs 1000 currency, which has been referred to as a masterstroke by many experts.

It refers to the decision of RBI/Government to recall the status of a currency note to be used as a legal tender. Usually all the currencies issued by RBI can be used as a legal tender as the value they carry is promised by RBI and once the value has been demonitized/recalled/revoked, the currency note cannot be used. Globally the central banks follow a practice wherein older currency notes are recalled and new currency notes with enhanced security features are issued so as to overcome the menace of counterfeit currency.



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Corporate Social Responsibility in India - Emerging Issues and Challenges

## CSR in the Era of Globalization - Impact on Developing Countries (INDIA)

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### ABSTRACT

In today's fast changing world, organizations are forging ahead towards global arena and are concentrating on how to improve their societal contribution. In the current situation it is not how the organization is moving ahead, it is how best they can get the acclamation from the society has turned out to be more important for them. In developing countries like India, CSR stands to be of vital importance for a mutual and symbiotic growth. The growth defined is not only of the individual but for the society as a whole and country at large. Many organizations have started programmes in the areas where the government could not fund or initiate, thereby doing creating doing justice to not only to their respective nation but also to the other poorer nations. corporate social responsibility opportunity is a concept whereby organizations consider the interests of society by taking responsibility for the impact of their activities on customers, suppliers, employees, shareholders, communities and other stakeholders, as well as the environment. in view of the above, the paper attempts to showcase some of the organizations initiatives in the area of corporate social responsibility further, the paper covers CSR process, its benefits, challenges and father directions use of referencing method data is gathered and presented appropriately. In Developing countries like INDIA, CSR stands to be of vital importance for a mutual and symbiotic growth. The growth defined is not only of the individual but for the society as a whole and country at large.

Key words: CSR, Globalization India, Growth, Organizations, Society, customers, shareholders

### INTRODUCTION

The catch word of the world economy is Globalization. Countries like India, which have huge population, high unemployment and generally people are poor is unable to

In the current globalized business world, there exist large multinational as well as small local business organizations. Irrespective of the nature of business organizations, they should be ethically bound to their stakeholders, such as customers, owners/investors, government, suppliers and competitors in order to ensure good will, which in turn assure maximum business growth rates. Organizations follow different strategies to ensure their ethics in order to achieve goodwill among their stakeholders. One of such strategies used is Corporate Social Responsibility (CSR).

According to Canadian Centre of philanthropy, "CSR is a set of management practices that ensure the company minimizes the negative impacts of its operations on the society while maximizing its positive impacts."

In developing countries like INDIA, business can succeed only if industries maintain good relationships with all their stakeholders. These relationships can be strengthened, if organizations fulfill their obligations towards the stakeholder

A firm's responsibility towards the society includes:

- Respecting human rights and democratic institutions,
- Supporting public policies and practices that promote human development through harmonious relations between business and other segments of society.
- Collaborating with such activities that aim at improving the standards of health, education, work place safety and economic well being,
- Promoting and stimulating sustainable development and

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# Cyber Risk Management - Challenges and Solutions

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## Abstract

Banking industry in India is rapidly evolving facilitated by mobile and internet penetration in the country and technological innovations disrupting the established processes. Cyber risk, while not at all new, has rocketed up the list of leading issues for banks-for the regulators, for the board, the CEO, the C-Suite, you name it.

In the last couple of years, technologies such as Digital Wallets, EMV Chip-based Cards, and two factor authentications via SMS-based One Time Password (OTP) have become mainstream in India. These innovations were designed to make payment transactions convenient and more secure;

Digital wallets in India are primarily mobile based and thus have inherent risk such as phishing fraud, sniffing, Fake KYC etc. EMV chip-based cards, which secure the payment transactions with enhanced functionalities like card authentication, cardholder verification etc. SMS-based one-time password (OTP) is an extremely popular and one of the most widely used form of two factor authentication. The major cyber risks associated with SMS based OTP are SMS messages may be intercepted or re-directed.

**Keywords:** Technological innovations, Cyber risk, Digital Wallets, EMV Chip-based Cards, SMS-based (OTP)

## 1. INTRODUCTION

Banks have been providing services to consumers and business organizations remotely for years. However, providing financial services over Internet is bringing about a fundamental shift in the banking industry. [8] The transition from the traditional

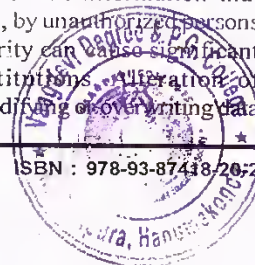
banking towards e-banking has been a 'sea' change. The increase in data access terminals along with the increasing use of information sensitive applications such as e-commerce & e-banking have generated a real requirement of control methods for confidentiality of information. Financial institutions offering Internet-based products and services to their customers should use effective methods to authenticate the identity of customers using those products and services. [7]

Since traditional paper-based and in-person identity authorization methods reduce the speed and efficiency of electronic transactions, there are a variety of alternative technologies and methodologies financial institutions can use to authorize customers. These methods include the use of customer passwords, personal identification numbers (PINs), digital certificates using a public key infrastructure (PKI), physical devices such as smart cards, one-time passwords (OTPs), USB plug-ins or other types of "tokens", transaction profile scripts, biometric identification and others. Since Electronic Banking is a new technology that has many capabilities and also many potential problems, users are hesitant to use the system. The number of malicious applications targeting online banking transactions has increased dramatically in recent years. [4]

The disclosure of important information that should remain confidential, by unauthorized persons or that exceed their authority can cause significant losses for financial institutions. Alteration of information by entering, modifying or overwriting data

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## Cyber Risk Management - Challenges and Solutions

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### Abstract

Banking industry in India is rapidly evolving facilitated by mobile and internet penetration in the country and technological innovations disrupting the established processes. Cyber risk, while not at all new, has rocketed up the list of leading issues for banks-for the regulators, for the board, the CEO, the C-Suite, you name it.

In the last couple of years, technologies such as Digital Wallets, EMV Chip-based Cards, and two factor authentications via SMS-based One Time Password (OTP) have become mainstream in India. These innovations were designed to make payment transactions convenient and more secure;

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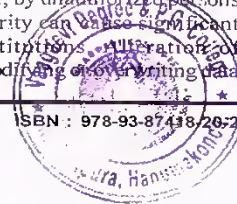
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**DEPARTMENT OF CHEMISTRY**  
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# Heterocycles

Synthesis and Biological Activities

*Edited by B. P. Nandeshwarappa and Sadashiv S. O.*



*A. Subhadhar*

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Chapter

# Synthesis and Biological Evaluation of Novel Phosphonyl Thiazolo Pyrazoles

Avula Srinivas

## Abstract

A series of novel dimethyl 7-((2S,3S)-3-((1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl)methoxy)-3,6-dihydro-2H-pyran-2-yl)-4-(4-fluorophenyl)-9-oxo-8-phenyl-6-thia-1,2,8-triazaspiro[4.4]non-2-en-3-ylphosphonate **11a-g** were synthesized by the reaction of chalcone derivatives of (E)-5-benzylidene-2-((2S,3S)-3-((1-(4-chlorophenyl)-1H-1,2,3-triazol-4-yl)methoxy)-3,6-dihydro-2H-pyran-2-yl)-3-phenylthiazolidin-4-one **10a-g** with Bestmann-Ohira reagent. The chemical structures of newly synthesized compounds were elucidated by IR, NMR, MS, and elemental analysis. The compounds **11a-g** were evaluated for their nematocidal activity against *Dietylenchus myceliophagus* and *Caenorhabditis elegans*, and compounds **11b**, **11c**, **11g**, and **11f** showed appreciable nematocidal activity.


**Keywords:** phosphonylpyrazoles, Bestmann-Ohira reagent, click reaction, Knoevenagel condensation, cyclisation, nematocidal activity

## 1. Introduction

1,2,3-Triazoles are one of the most important classes of heterocyclic organic compounds, which are reported to present in a plethora of biological activities for diverse therapeutic areas [1-12]. The 1,2,3-triazole motif is associated with diverse pharmacological activities such as antibacterial, antifungal, hypoglycemic, antihypertensive and analgesic properties [13-15]. Polysubstituted five-membered aza heterocyclic's rank the most potent glycosidase inhibitors [16-19]. Further, this nucleus in combination with or in linking with various other classes of compounds such as amino acids, steroids, aromatic compounds, carbohydrates etc. became prominent in having various pharmacological properties [20]. 1,2,3-Triazole modified carbohydrates have become easily available after the discovery of the Cu(I) catalyzed azide-alkynes 1,3-dipolar cycloaddition reaction [21-25] and quickly became a prominent class of non-natural sugars. The chemistry and biology of triazole modified sugars is dominated by triazole glycosides [26]. Therefore, the synthesis and investigation of biological activity of 1,2,3-triazole glycosides is an important objective, which also received the considerable attention by the medicinal chemists.

Thiazoles are familiar group of heterocyclic compounds possessing a wide variety of biological activities and their utility as medicine is very much established [27]. Thiazole nucleus is also an integral part of all the available penicillins

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National Seminar on Digital India: Initiative towards Social Transformation & Empowerment

## E-Learning A Smart Concept towards Digital India

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### Abstract

Over the years, technology has played a key role in shaping our world. Technology is all around in every domain. E-learning is one of the domains which have lots of potentials yet to come. It has eased the process of getting education to great extent. From high-tech school laboratories to virtual classrooms, the ways and means of education have been constantly evolving. Indian education system is no exception in implementing e-learning applications in the field of education to make it better and effective. For this as well as for transforming the knowledge landscape of the country, Indian Government has initiated a mission project named as National Mission on Education through ICT (NME-ICT) in 2009 by utilizing and deploying ICT potential and capabilities for taking the knowledge resources in the form of e-learning applications to the doorsteps of the learners. As a result of the government initiative, various e-learning projects and schemes (MHRD-GOI) have been taken up.

*Key Words: Digital India, Pedagogy, High-tech, Virtual Lab, Multimedia.*

### 1. INTRODUCTION

E-Learning means Electronic Learning. The use of electronic media and information and communication technologies in education, teaching and training is called E-learning. E-Learning is the method of gaining knowledge by attending the classes online, taking tests on a website and getting approved certificate of the course. The topics of interest may vary from person to person in which the courses are available. The concept of e-learning is as old as a decade or two but its penetration has grown in the last few years. The advancement in technology and easy accessibility of internet has opened a brighter side of e-learning in India. Once the technical errors are sorted out, the future of e-learning seems invariably strong for it is one of the easiest sources to learn management courses as well as technical courses and this will play an important role towards Digital India.

To make education richer and more effective teachers through Power Point Presentation deliver their lessons. This involves a detailed and complex preparation on the part of the teacher. In ancient days students were taught in a Gurukul where they were taught by the Gurus, same as in the typical classroom was once characterized by students sitting through hour long teaching monologues but this system was replaced by modernized culture, this technology is making life easier for both educators and students. There are five reasons why online learning can be more effective than enrolling in a face to face traditional training course.

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**DEPARTMENT OF ZOOLOGY**  
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## LACTATE, MITOCHONDRIA AND CANCER CELL

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### ABSTRACT

Warburg proposed 'aerobic glycolysis' to suggest that cancer cells produce lactate and depend on glycolysis even in the presence of O<sub>2</sub>. Lactate is a signal molecule and a symbiotic fuel for cancer growth. The emerging literature suggests that the mitochondria are functional in cancers, and produce the metabolites for the epigenetic modification of histones, and provide the precursor molecules for the biosynthesis of macromolecules. The cell membrane transporters of fatty acids and amino acids regulate the spatiotemporal changes in the gene expression and the metabolic programming in cells, which decide the cell fate. Lactate entry into the cells activates the hypoxia-inducible factor2 (HIF2)/ Aryl hydrocarbon receptor nuclear translocator (ARNT) signalling pathway, which together with MYC mediates glutamine metabolism in the mitochondria. Lactate conversion to pyruvate activates two mitochondrial pyruvate carrier proteins, MPC1 and MPC2, which activate the differentiation of cells and promote the lipogenic and the gluconeogenic programmes respectively.

**KEYWORDS:** Carcinogenesis; Pyruvate; Respiratory chain; Coenzyme ligases, Epigenetics.

  
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## BIOCHEMICAL STUDIES ON 25 DAY OLD HEALTHY AND INFECTED FRY OF *Labeo rohita* (Hamilton)

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### ABSTRACT

The caudal fin rot of fishes is commonly observed in fry and fingerlings in intensive cultures. Infected fry of *Labeo rohita* have been compared with the normal fishes for quantitative estimations of proteins, free amino acids and lipids, which has decreased in infected fishes. The variation in esterase patterns and SDS protein patterns too has been observed. Esterase patterns could be used as an indicator for comparison of normal and pathogenic fishes.

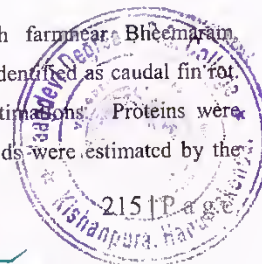
**Key words:** Caudal fin rot, fry, *Labeo rohita*, esterase, SDS proteins

### I. INTRODUCTION

Several bacterial facultative fish pathogens are present in waters but epizootic occurs when environmental quality and the host defense systems of the fish deteriorate. Factors such as organic manure, heavy metals, and inorganic salts in quantities detrimental to the organism cause stress to which the reaction of the fish-skin can either be adaptive or degenerative<sup>1</sup>. Fin rot is a common disease which is mainly being caused by stress or overcrowding. It leads to the formation of greyish, white patches, skin erosion and destruction of the fins, especially the caudal fins, causing large mortalities<sup>2</sup>. The bacteria appearing in the tissues of the affected caudal fin of Indian Major carps and climbing perch was identified as *Flavobacterium columnare*<sup>3</sup> and in tropical aquarium fishes as *Aeromonas punctata* and *P. fluorescent* groups<sup>4-6</sup>. The main reason for choosing the 25 days fry was that by this time it had lost all the embryonic remnants and is obliged to swim and catch the prey even though its digestive tract is poorly developed. It is at this stage, soon after the first feedings that the larvae are prone to infections.

### II. MATERIALS AND METHODS

Live healthy and infected fingerlings were brought from a Government fish farm near Bheemaram, Hanamkonda. The symptoms observed were loss of tail and mass mortality. It was identified as caudal fin rot. The whole, healthy as well as infected fingerlings were used for biochemical estimations. Proteins were estimated by modified Lowry's method<sup>7</sup>, amino acids by using ninhydrin<sup>8</sup> and lipids were estimated by the



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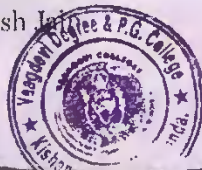




# Technological Developments in Computer Applications



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# Improving Software Development Process through Data Mining Techniques of Classification Algorithm

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**Abstract** - Research within the fields of software system quality, maintainability needs the analysis of huge amount of knowledge, which originate from software system comes, it's a difficult task in pre-processing the information and synthesizing the composite results, it's fairly often miscalculation prone task. Data Mining techniques are usually thought-about, because the processing data, however there could also be case that up to the mark for that, during this context AN jury are going to be used to facilitate software system analysis on giant and adverse knowledge set. There could also be the possibility of not obtaining the proper result for reinforcing up the



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