

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

I
J
R
C
M



A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories

Indexed & Listed at:

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., EBSCO Publishing, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A.,

Open J-Gate, India [link of the same is duly available at Infilbnet of University Grants Commission (U.G.C.)],

The American Economic Association's electronic bibliography, EconLit, U.S.A.,

Index Copernicus Publishers Panel, Poland with IC Value of 5.09 & number of libraries all around the world.

Circulated all over the world & Google has verified that scholars of more than 3770 Cities in 175 countries/territories are visiting our journal on regular basis.

Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI – 135 003, Yamunanagar, Haryana, INDIA

<http://ijrcm.org.in/>

CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	MAHATMA GANDHI NREGS: TOWARDS EMBRACING FINANCIAL INCLUSION <i>V.AMBILIKUMAR, M.S.RAJU, MATHEW SEBASTIAN & ANUSREE H.</i>	1
2.	PROBLEMS AND PROSPECTS OF FRUIT PROCESSING INDUSTRY: A STUDY WITH REFERENCE TO CHITTOOR DISTRICT OF ANDHRA PRADESH <i>G. SURESH BABU & MAMILLA.RAJASEKHAR</i>	5
3.	ORGANIZATION JUSTICE TOWARDS COUNTERPRODUCTIVE WORK BEHAVIOR IN BANKING SECTOR <i>PIAR CHAND & PAWAN KUMAR CHAND</i>	10
4.	COLLEGE STUDENTS ATTITUDE TOWARDS GREEN PRODUCTS IN TIRUNELVELI CITY <i>DR. S. RAJAMOHAN & D. JOEL JEBADURAI</i>	19
5.	COMPARATIVE PERFORMANCE EVALUATION OF SELECTED AUTOMOBILE COMPANIES IN INDIA USING EVA AND MVA MEASURES <i>DR. KULDEEP KUMAR</i>	25
6.	MUTUAL FUND PERFORMANCE: AN EMPIRICAL INVESTIGATION OF SELECTED EQUITY DIVERSIFIED SCHEMES IN INDIA <i>AKSHATHA SUVARNA & DR. ISHWARA P.</i>	30
7.	COMPOSITIONAL CHANGES IN IRANIAN TRADE BASKET OF LIVESTOCK SECTOR <i>MASSOUMEH N. ZADEH, BITAN MONDAL, RAKA SAXENA & SMITA SIROHI</i>	37
8.	CUSTOMERS' SATISFACTION REGARDING LIQUIDITY IN MUTUAL FUND: A STUDY <i>DR. SANJEET KUMAR & VIVEK JANGID</i>	43
9.	LIFE OF AND CHALLENGES FACED BY AFRICAN STUDENTS IN TAMIL NADU, INDIA: A QUALITATIVE STUDY <i>DR. G. YOGANANDAN</i>	47
10.	UNORGANIZED INFORMAL SECTOR AND FEMALE LABOUR IN REFERENCE TO CITIES OF UTTAR PRADESH <i>DR. VANDANA MITTAL</i>	50
11.	WAGNER'S LAW IN INDIA: AN EMPIRICAL ANALYSIS <i>AMITA</i>	54
12.	A STUDY ON MONOPOLY PROCUREMENT SYSTEM OF PADDY IN TIRUVARUR DISTRICT, TAMIL NADU <i>DR. C. PRAKASH</i>	60
13.	A STUDY OF CSR IN INDIA <i>KOMAL CHAUDHARY</i>	63
14.	ASSESSMENT OF SMALL SCALE FISHERS' LIVELIHOOD STATUS IN THE BATTICALOA DISTRICT OF SRI LANKA <i>SARAVANAMUTTHU JEYARAJAH & SELVARATHNAM SANTHIRASEGARAM</i>	66
15.	CRITICAL SUCCESS FACTORS FOR INNOVATION: AN EMPIRICAL ANALYSIS ON TEA INDUSTRY IN SRI LANKA <i>K.M.V. SACHITRA & DR. P.J. KUMARASINGHE</i>	69
16.	FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH IN DEVELOPING COUNTRY <i>MACAULAY ONOVUGHAKPO AUGUSTINE & KASIMU ABUDU</i>	75
17.	PROSPECTS OF ECOTOURISM IN BIHAR <i>VAIBHAV KUMAR CHAUHAN</i>	82
18.	PROMOTING FINANCIAL INCLUSION IN RURAL AREAS THROUGH CO-OPERATIVE BANKS: WITH SPECIAL REFERENCE TO DCCB, PADERU AGENCY <i>S. KANAKA DURGA DEVI</i>	85
19.	ECONOMIC IMPACT OF TOURISM ON RESIDENTS OF JAMMU AND KASHMIR STATE <i>SUTINDER SINGH</i>	89
20.	A CONCEPTUAL PAPER ON CROWDFUNDING WITH REFERENCE TO ENTREPRENEURS AND INVESTORS IN INDIA <i>DARSHANA THAKER</i>	91
	REQUEST FOR FEEDBACK & DISCLAIMER	94

CHIEF PATRON

PROF. K. K. AGGARWAL

Chairman, Malaviya National Institute of Technology, Jaipur
(An institute of National Importance & fully funded by Ministry of Human Resource Development, Government of India)
Chancellor, K. R. Mangalam University, Gurgaon
Chancellor, Lingaya's University, Faridabad
Founder Vice-Chancellor (1998-2008), Guru Gobind Singh Indraprastha University, Delhi
Ex. Pro Vice-Chancellor, Guru Jambheshwar University, Hisar

FOUNDER PATRON

LATE SH. RAM BHAJAN AGGARWAL

Former State Minister for Home & Tourism, Government of Haryana
Former Vice-President, Dadri Education Society, Charkhi Dadri
Former President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

CO-ORDINATOR

DR. BHAVET

Faculty, Shree Ram Institute of Business & Management, Urjani

ADVISORS

DR. PRIYA RANJAN TRIVEDI

Chancellor, The Global Open University, Nagaland

PROF. M. S. SENAM RAJU

Director A. C. D., School of Management Studies, I.G.N.O.U., New Delhi

PROF. M. N. SHARMA

Chairman, M.B.A., Haryana College of Technology & Management, Kaithal

PROF. S. L. MAHANDRU

Principal (Retd.), Maharaja Agrasen College, Jagadhri

EDITOR

PROF. R. K. SHARMA

Professor, Bharti Vidyapeeth University Institute of Management & Research, New Delhi

CO-EDITOR

DR. SAMBHAV GARG

Faculty, Shree Ram Institute of Business & Management, Urjani

EDITORIAL ADVISORY BOARD

DR. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

PROF. SIKANDER KUMAR

Chairman, Department of Economics, Himachal Pradesh University, Shimla, Himachal Pradesh

PROF. SANJIV MITTAL

University School of Management Studies, Guru Gobind Singh I. P. University, Delhi

PROF. RAJENDER GUPTA

Convener, Board of Studies in Economics, University of Jammu, Jammu

PROF. NAWAB ALI KHAN

Department of Commerce, Aligarh Muslim University, Aligarh, U.P.

PROF. S. P. TIWARI

Head, Department of Economics & Rural Development, Dr. Ram Manohar Lohia Avadh University, Faizabad

DR. ANIL CHANDHOK

Professor, Faculty of Management, Maharishi Markandeshwar University, Mullana, Ambala, Haryana

DR. ASHOK KUMAR CHAUHAN

Reader, Department of Economics, Kurukshetra University, Kurukshetra

DR. SAMBHAVNA

Faculty, I.I.T.M., Delhi

DR. MOHENDER KUMAR GUPTA

Associate Professor, P.J.L.N. Government College, Faridabad

DR. VIVEK CHAWLA

Associate Professor, Kurukshetra University, Kurukshetra

DR. SHIVAKUMAR DEENE

Asst. Professor, Dept. of Commerce, School of Business Studies, Central University of Karnataka, Gulbarga

ASSOCIATE EDITORS

PROF. ABHAY BANSAL

Head, Department of Information Technology, Amity School of Engineering & Technology, Amity University, Noida

PARVEEN KHURANA

Associate Professor, Mukand Lal National College, Yamuna Nagar

SHASHI KHURANA

Associate Professor, S.M.S. Khalsa Lubana Girls College, Barara, Ambala

SUNIL KUMAR KARWASRA

Principal, Aakash College of Education, ChanderKalan, Tohana, Fatehabad

DR. VIKAS CHOUDHARY

Asst. Professor, N.I.T. (University), Kurukshetra

TECHNICAL ADVISOR

AMITA

Faculty, Government M. S., Mohali

FINANCIAL ADVISORS

DICKIN GOYAL

Advocate & Tax Adviser, Panchkula

NEENA

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

LEGAL ADVISORS

JITENDER S. CHAHAL

Advocate, Punjab & Haryana High Court, Chandigarh U.T.

CHANDER BHUSHAN SHARMA

Advocate & Consultant, District Courts, Yamunanagar at Jagadhri

SUPERINTENDENT

SURENDER KUMAR POONIA

CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the areas of Computer Science & Applications; Commerce; Business; Finance; Marketing; Human Resource Management; General Management; Banking; Economics; Tourism Administration & Management; Education; Law; Library & Information Science; Defence & Strategic Studies; Electronic Science; Corporate Governance; Industrial Relations; and emerging paradigms in allied subjects like Accounting; Accounting Information Systems; Accounting Theory & Practice; Auditing; Behavioral Accounting; Behavioral Economics; Corporate Finance; Cost Accounting; Econometrics; Economic Development; Economic History; Financial Institutions & Markets; Financial Services; Fiscal Policy; Government & Non Profit Accounting; Industrial Organization; International Economics & Trade; International Finance; Macro Economics; Micro Economics; Rural Economics; Co-operation; Demography; Development Planning; Development Studies; Applied Economics; Development Economics; Business Economics; Monetary Policy; Public Policy Economics; Real Estate; Regional Economics; Political Science; Continuing Education; Labour Welfare; Philosophy; Psychology; Sociology; Tax Accounting; Advertising & Promotion Management; Management Information Systems (MIS); Business Law; Public Responsibility & Ethics; Communication; Direct Marketing; E-Commerce; Global Business; Health Care Administration; Labour Relations & Human Resource Management; Marketing Research; Marketing Theory & Applications; Non-Profit Organizations; Office Administration/Management; Operations Research/Statistics; Organizational Behavior & Theory; Organizational Development; Production/Operations; International Relations; Human Rights & Duties; Public Administration; Population Studies; Purchasing/Materials Management; Retailing; Sales/Selling; Services; Small Business Entrepreneurship; Strategic Management Policy; Technology/Innovation; Tourism & Hospitality; Transportation Distribution; Algorithms; Artificial Intelligence; Compilers & Translation; Computer Aided Design (CAD); Computer Aided Manufacturing; Computer Graphics; Computer Organization & Architecture; Database Structures & Systems; Discrete Structures; Internet; Management Information Systems; Modeling & Simulation; Neural Systems/Neural Networks; Numerical Analysis/Scientific Computing; Object Oriented Programming; Operating Systems; Programming Languages; Robotics; Symbolic & Formal Logic; Web Design and emerging paradigms in allied subjects.

Anybody can submit the **soft copy** of unpublished novel; original; empirical and high quality **research work/manuscript** **anytime** in **M.S. Word format** after preparing the same as per our **GUIDELINES FOR SUBMISSION**; at our email address i.e. infoijrcm@gmail.com or online by clicking the link **online submission** as given on our website ([FOR ONLINE SUBMISSION, CLICK HERE](#)).

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION:**

DATED: _____

THE EDITOR
IJRCM

Subject: **SUBMISSION OF MANUSCRIPT IN THE AREA OF.**

(e.g. Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)

DEAR SIR/MADAM

Please find my submission of manuscript entitled ' _____ ' for possible publication in your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published elsewhere in any language fully or partly, nor is it under review for publication elsewhere.

I affirm that all the author (s) have seen and agreed to the submitted version of the manuscript and their inclusion of name (s) as co-author (s).

Also, if my/our manuscript is accepted, I/We agree to comply with the formalities as given on the website of the journal & you are free to publish our contribution in any of your journals.

NAME OF CORRESPONDING AUTHOR:

Designation:
Affiliation with full address, contact numbers & Pin Code:
Residential address with Pin Code:
Mobile Number (s):
Landline Number (s):
E-mail Address:
Alternate E-mail Address:

NOTES:

- a) The whole manuscript is required to be in **ONE MS WORD FILE** only (pdf. version is liable to be rejected without any consideration), which will start from the covering letter, inside the manuscript.
- b) The sender is required to mention the following in the **SUBJECT COLUMN** of the mail:
New Manuscript for Review in the area of (Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)
- c) There is no need to give any text in the body of mail, except the cases where the author wishes to give any specific message w.r.t. to the manuscript.
- d) The total size of the file containing the manuscript is required to be below **500 KB**.
- e) Abstract alone will not be considered for review, and the author is required to submit the complete manuscript in the first instance.
- f) The journal gives acknowledgement w.r.t. the receipt of every email and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of manuscript, within two days of submission, the corresponding author is required to demand for the same by sending separate mail to the journal.

2. **MANUSCRIPT TITLE:** The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.

3. **AUTHOR NAME (S) & AFFILIATIONS:** The author (s) **full name, designation, affiliation (s), address, mobile/landline numbers**, and **email/alternate email address** should be in italic & 11-point Calibri Font. It must be centered underneath the title.

4. **ABSTRACT:** Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain the background, aims, methods, results & conclusion in a single para. Abbreviations must be mentioned in full.

5. **KEYWORDS:** Abstract must be followed by a list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.
6. **MANUSCRIPT:** Manuscript must be in **BRITISH ENGLISH** prepared on a standard A4 size **PORTRAIT SETTING PAPER**. It must be prepared on a single space and single column with 1" margin set for top, bottom, left and right. It should be typed in 8 point Calibri Font with page numbers at the bottom and centre of every page. It should be free from grammatical, spelling and punctuation errors and must be thoroughly edited.
7. **HEADINGS:** All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.
8. **SUB-HEADINGS:** All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.
9. **MAIN TEXT:** The main text should follow the following sequence:

INTRODUCTION**REVIEW OF LITERATURE****NEED/IMPORTANCE OF THE STUDY****STATEMENT OF THE PROBLEM****OBJECTIVES****HYPOTHESES****RESEARCH METHODOLOGY****RESULTS & DISCUSSION****FINDINGS****RECOMMENDATIONS/SUGGESTIONS****CONCLUSIONS****SCOPE FOR FURTHER RESEARCH****ACKNOWLEDGMENTS****REFERENCES****APPENDIX/ANNEXURE**

It should be in a 8 point Calibri Font, single spaced and justified. The manuscript should preferably not exceed **5000 WORDS**.

10. **FIGURES & TABLES:** These should be simple, crystal clear, centered, separately numbered & self explained, and **titles must be above the table/figure. Sources of data should be mentioned below the table/figure.** It should be ensured that the tables/figures are referred to from the main text.
11. **EQUATIONS:** These should be consecutively numbered in parentheses, horizontally centered with equation number placed at the right.
12. **REFERENCES:** The list of all references should be alphabetically arranged. The author (s) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow **Harvard Style of Referencing**. The author (s) are supposed to follow the references as per the following:
 - All works cited in the text (including sources for tables and figures) should be listed alphabetically.
 - Use **(ed.)** for one editor, and **(ed.s)** for multiple editors.
 - When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
 - Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
 - The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
 - For titles in a language other than English, provide an English translation in parentheses.
 - The location of endnotes within the text should be indicated by superscript numbers.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:**BOOKS**

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19-22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

WEBSITES

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 <http://epw.in/user/viewabstract.jsp>

PROBLEMS AND PROSPECTS OF FRUIT PROCESSING INDUSTRY: A STUDY WITH REFERENCE TO CHITTOOR DISTRICT OF ANDHRA PRADESH

G. SURESH BABU
RESEARCH SCHOLAR
DEPARTMENT OF COMMERCE
S. V. UNIVERSITY
TIRUPATI

MAMILLA.RAJASEKHAR
HEAD
DEPARTMENT OF COMMERCE
S. V. UNIVERSITY
TIRUPARI

ABSTRACT

The food processing sector is of the great importance to India's development, for it establishes a vital linkage and synergy between the two pillars of the economy-Industry and Agriculture. The enormous growth potential of this sector can be understood from the fact that food production in the country is expected to double in the next 10 years, and the consumption of value-added food products will also correspondingly grow. The growth of this industry will bring immense benefits to the economy, raising agricultural yields, enhancing productivity, creating employment and raising life-standards of a large number of people across the country, especially those in rural areas. This paper attempts to study about problems encountered by the Fruit Processing Units and to assess their future prospects in Chittoor District of Andhra Pradesh.

KEYWORDS

Fruit Processing, mango pulp industry, value addition and mango pulp productivity.

INTRODUCTION

The food processing sector is of the great importance to India's development, for it establishes a vital linkage and synergy between the two pillars of the economy-Industry and Agriculture. The enormous growth potential of this sector can be understood from the fact that food production in the country is expected to double in the next 10 years, and the consumption of value-added food products will also correspondingly grow. The growth of this industry will bring immense benefits to the economy, raising agricultural yields, enhancing productivity, creating employment and raising life-standards of a large number of people across the country, especially those in rural areas.

REVIEW OF LITERATURE

The fruit processing industry, being at the lowest segment of the food processing industries, has not received adequate attention, particularly in Chittoor district of Andhra Pradesh. The Studies relating to food processing can broadly be classified in to two groups i.e., Technical and Non-technical. The present study is basically non-technical, in the sense; it concentrates on the financial performance, problems and prospects of the fruit processing industry. A brief review of past researches relevant to the present study is presented below:

Sunandini (2003), The study focuses on the constraints of the fruit processing industry in Andhra Pradesh. Andhra Pradesh ranks second in the area and production of horticultural crops in India. Among these crops, fruits occupy 43 per cent of the area and contribute 53 per cent of production. About 30 per cent of the horticulture produced is wasted every year due to post-harvest losses, lack of appropriate storage and transportation facilities and infrastructure. The processing of fruits not only adds value to this perishable produce but in turn generates employment and improves income levels. This is one of the few studies reviewed her, immediately relevant to the present investigation.

S. Mahendm Dev and N. Chandra Sekhar Rao (2004), The authors analyse the opportunities and challenges in processing of rice, fruits and vegetables, oil seeds and live stock products. The objectives of the study were to assess the working of contacts between processors and farmers in Andhra Pradesh. The study concluded that the policy recommendations under five broad headings- institutional taxes and subsidies research and training, infrastructure and other suggestions for the development of fruit processing units in Andhra Pradesh.

STATEMENT OF THE PROBLEM

Review of the literature reveals that a majority of the studies review concentrate on the technical aspects of fruit processing, input-output matrices, etc. A few of the studies which focus on financial analysis select only one institution either at the village or district level or State level. In that sense, their studies are rather narrow and limited. No attempt has been made to compare more than one Fruit Processing unit, in this regard. No attempt either appears to have been made to analyse/compare the performance and problems of the many fruit processing units. Moreover, the operational efficiency is the critical aspect in the success or failure of business.

NEED FOR THE STUDY

The working of Fruit Processing Units in Chittoor district is found to be unsatisfactory and has failed to produce the expected results, defeating the confidence reposed by planners, administrators and farmers in this sector. The Units in Chittoor District have failed to meet the demand for its products within and outside the state and thus have caused a great loss to the state revenue. The question -"Why the fruit processing industries in Chittoor District have been unable to fulfill the expectation" has remained unanswered. Therefore, the present undertaking takes into consideration the past and present performance of the various fruit processing units in Chittoor district and the problems they have been encountering. It also considers the possible strategy and plan of action that may be adopted to develop the fruit processing industry and better its performance.

OBJECTIVES OF THE STUDY

The following objectives are set for the present study:

- to Probe into the various problems encountered by the Fruit Processing Units and to assess their future prospects in Chittoor District and
- to suggest feasible measures to tone up the existing performance of the Fruit Processing Units in the district.

RESEARCH METHODOLOGY

In view of the specific objectives of the present study, it uses both primary and secondary data. It contemplates a two pronged approach. It focuses attention first on the sample of 14 fruit processing units in the district and next on various institutions and departments engaged in this sector, to obtain factual data. Further the study makes use of the published reports of APEDA, WTO, Ministry of Food Processing Industry, DIC and the like.

SAMPLE DESIGN

There are 53 fruit processing units in operation in Chittoor district. These units have been classified as per investment criteria of MSMEs Act, 2006. According to this criterion, there exist 40 units in Small Scale, 08 in Medium Scale and 05 in Large Scale. As these units are having mixed results in terms of profitability and viability, 07 units in Small Scale, 03 units in Medium Scale and 04 units in Large Scale were selected purposefully for in-depth study.

SCOPE AND LIMITATIONS OF THE STUDY

The present study has certain limitations of which the investigator is fully aware. Adequate data pertaining to the fruit processing industry in Chittoor district was not available in this field had been conducted so far. So, the present study has had to rely more on the data collected from the responding fruit processing units in the district. Unfortunately, only a few units from Chittoor division, Tirupati division and Madanapalh division were willing to respond to the questionnaire after much persuasion and personal request. Hence, the analysis has had to be done on the basis of the available limited information and data.

FRUIT PROCESSING INDUSTRY IN CHITTOOR DISTRICT

The Chittoor district is second largest Mango growing region in Andhra Pradesh, The market is very prone to fluctuations both in prices and production. The Fruit Processing industry also faces lot of fluctuations in production and marketing. Although a number of studies have been conducted, quite a large number of seminars and conferences being organized, volumes of information published on the marketing of mango production yet due to wide fluctuations in production and price, most of the studies have not been able to provide time-tested market solutions. Education, levels of development and enterprising abilities of mandi-owner-cum-traders shake the market efficiency operations. Some issues are region-specific and area-specific. Mango being a tropical crop it is grown in limited agro climate zone/region. On the other natural conditions, market accessibility, infrastructural and location variations show marked advantages or disadvantages because of the perishable nature of mango produce. In this context, location specific or district level studies focus on the problem more effectively than state or country-wide studies. Though Chittoor district is the second largest mango producing centre in Andhra Pradesh, there is no comprehensive study of the Fruit Processing Industry in Chittoor District. Hence, ATMA and Chittoor District Fruit Processors' Federation have proposed to study and identify the problems faced by Fruit Processing Industry in Chittoor district, and solutions for them.

MAJOR BENEFITS AND PROBLEMS OF FRUIT PROCESSING INDUSTRY

The State of Andhra Pradesh ranks Second in the Country in Fruit Production and the Mango Production alone is 31,64,172 M.T.s and the Production of Mango Pulp is about One Lakh Fifty thousand Tons mostly produced in Chittoor District only. There are about 53 Fruit Processing Units functioning in the District and are developed in to a cluster.

90 per cent of the Mango Pulp produced in the District is being Exported mainly to the Gulf countries like Kuwait, Saudi, Dubai etc., and also to the European Countries earning Crores of Rupees as valuable foreign exchange to the country. In addition, the domestic consumption of Pulp as Fruit Juices, Jams etc., has been increasing steadily. The Government gets Crores of Rupees by way of Excise Duty and other taxes. Thus the industry's contribution to the nation's economy is considerable.

BENEFITS OF FRUIT PROCESSING INDUSTRY

The farmer is immensely benefited by selling his Mango produce directly to the Factories.

- ❖ By avoiding the middle man the farmer gets correct weighments for his product.
- ❖ He gets the actual market price for his produce and prompt payment. Thus many produce is becoming a major source of income to the small and marginal farmers, in this District.
- ❖ The factories in Chittoor District procure Mangoes not only from the District but also from Kodur, Rajampet and Rayachoti areas in the neighbouring Kadapa District and also from Krishna District. Thus Farmers of other districts in Andhra Pradesh are also benefited.

Apart from the farmers, nearly 20,000 agricultural labourers are working in the Industry during the Season, that too in the summer months, and thus earn their livelihood. Thus the Fruit Processing Industries play an important role in the development of the State and the Country as a whole.

PROBLEMS OF FRUIT PROCESSING INDUSTRY

The Following and Table 1 shows the problems faced by the fruit processing industry in Chittoor district.

TABLE 1: PROBLEMS OF FRUIT PROCESSING INDUSTRY IN CHITTOOR DISTRICT

Sl.No	Problems	No. of Respondents	Percentage
1	Machinery	12	7.90
2	Bank Loan and Interest	14	9.21
3	Asceptic Packing Unit under Common Facility	10	6.58
4	Agricultural Market Cess (AMC)	10	6.58
5	Electricity	09	5.92
6	Supply of Coal	07	4.61
7	Disposal of Mango Waste Products	14	9.21
8	Raw material	14	9.21
9	Water	03	1.97
10	Labour	12	7.90
11	Marketing	10	6.58
12	Malpractices	07	4.61
13	Storage	12	7.90
14	Government Officials	04	2.63
15	Infrastructure Development	14	9.21

Source: Field Study

Note: Figures m parentheses indicate percentage to totals

The major problems of the fruit processing units in Chittoor District of Andhra Pradesh are explained hereafter:

➤ **MACHINERY**

For 7.9 per cent of the units machinery is a problem. Usually it takes 3 to 6 months to get the machinery after the placement of order to Metal Box India Ltd., Chennai or Rayon's Metal Works, Mumbai. In recent years the cost of machinery has been increasing rapidly. Further, rapid technological changes are making the machinery bought obsolete within a short time. Consequently, the units have to place orders for new machines in frequent intervals. If the units cannot replace the old by new ones, it is difficult for them to survive in the competitive market. The units have to pay high interest charges on medium term loans raised to purchase new machinery, which puts a heavy financial burden on them. The Government must reduce interest rates and direct commercial banks and financial institutions to provide liberal medium term loans for purchasing the latest machinery.

➤ **BANK LOAN AND INTEREST**

All the 53 Units in the District have availed themselves of Loans from Nationalized Banks for the Term Loan and Working Capital. Being a Seasonal Industry, the Fruit Processing Industry works for 60 days only in a year and during the rest of the year, it is kept idle. Fruit Processors' effort to run the Industry throughout the year with other fruits has not been successful due to lack of market facilities and involvement of huge capital. The interest burden on the Industry is heavy.

➤ **ASEPTIC PACKING UNIT UNDER COMMON FACILITY**

This is also 6.58 per cent of the total problems of the industry. The Aseptic packing unit under Common facility - Funds released by the APEDA (Central Government) was withdrawn as the Project was not grounded by the Government of Andhra Pradesh. The APEDA had sanctioned a One-Time Grant (75% of the project cost) towards setting up the facility and accordingly an MOU was entered into by the APSTC with the APEDA. An extent of 11 Acres of land was identified at Kalluripalli Village in Chittoor Region and at Renigunta Mandal in Tirupati Region. The Government of Andhra Pradesh directed the Vice-Chairman and Managing Director of A.P. State Trading Corporation to implement the 'Common Aseptic Packing Unit' in Chittoor District.

➤ **AGRICULTURAL MARKET CESS (AMC)**

The processors have the problem of AMC to the extent of 6.58 per cent. In Tamilnadu fruits and vegetables are totally exempted from the AMC. In Karnataka the AMC is not levied on Processed Fruits and Vegetable Products. In Andhra Pradesh 1% AMC is levied on the cost of fruits purchased for processing. It may be noted that in India only 3% of the total fruit and vegetables are processed, where as in other countries like Brazil, Mexico and European countries 70 to 80% of the fruit and vegetable are being processed. The Government of Andhra Pradesh to encourage Food Processing Industry in the State announced Special incentives as per the guidelines and G.O issued under the Food Processing Policy of Andhra Pradesh on 14-11-2003. 'All Food Processing Industries shall be exempted from payment of Market Cess on Procurement of Raw Materials like Mangos for the Industry. But the policy has not been implemented so far by the Marketing Department.

➤ **ELECTRICITY**

Most of the Fruit Processing Industries have below 75 HP connecting Load and come under category III A. Due to modernization of the industry to improve quality, strict sanitation and hygiene and compulsory provision of Effluent Treatment Plant, the power requirement of the industry has naturally increased considerably, is more and some items going beyond 75 HP III A Category thereby the Electricity Authorities demanding to Fruit Processing Industrialist to join III B Category. As per the terms and conditions of category III B the entrepreneur has to pay Rs 2,000/- per HP as Security and development charges and install his own Transformer costing Rs. One Lakh and also metering cost of Rs 1,40,0000. As the Fruit Processing Units work only for seasonal three months in a year, they are unable to bear the huge amounts under this category. The industry is already facing financial crisis and is crippled due to lack of funds and additional expenditure on account of power (category to III B) will definitely affect the industry adversely (5.92 per cent in the total problems faced by industry). So, the Government would do well to instruct the authorities of AP TRANSCO to regularize the Fruit Processing Units additional load without insisting that they purchase Transformers and not to insist metering costs.

➤ **SUPPLY OF COAL**

Each Processing Unit requires 180 M.T.s of Coal for seasonal Mango Processing. During the previous years the District Industries Centre recommended to the Singareni Collieries Co. Ltd., A.P. to supply coal at reasonable price to the fruit processing industry in the district. But during the year 2006-2007 the Sanction or Recommendation was entrusted to three departments viz. District Industries Centre, Commercial Tax Department and Ned Cap and as a result a number of units could get coal permit for the season of 2006. Due to this involvement of three departments the concept totally failed and the canners suffered heavy financial loss as they had to Purchase coal at higher rates from other States. 4.61 per cent of this problem is not negligible.

➤ **DISPOSAL OF MANGO WASTE PRODUCTS**

Among the problems of the industry disposal of waste looms large (9.21 per cent). During the process of fruits 50% of the quantity comes out as Mango waste in the form of Mango seed, Mango peel, fiber and Boiler cinder waste. To dispose of this waste at the Factory premises has become very problematic, the wastes indisposed creates quality and hygienic problems. So, the government would help the industries by allotting them 2 to 3 acres of waste land per unit in the neighbouring areas at Government Cost or on Lease Basis also, so that there will not be any pollution or Public Health Problems.

➤ **RAW MATERIAL**

Like the precious one this is also a major problem (9.21 per cent). In pulp production mangoes, sugar, chemicals and tin plates are the main inputs. Mangos Mango fruits are purchased from mango mandi merchants in the District. The Mandi merchants purchase fruits from farmers at low prices and sell them to the Fruit Processing Units at high prices. They also appropriate 10 per cent of the sale proceeds accruing to the farmers as commission. Thus the mandi merchants have been exploiting the farmers and the Fruit Processing Units. To avoid such exploitation the Processing Units themselves collectively could start a central purchase organization and purchase fruits directly from farmers at reasonable prices, to mutual advantage.

➤ **CHEMICALS**

The chemical used in Fruit Processing is citric acid. The Processing Units find it difficult to get sufficient citric acid which is in short supply. But it is the most important chemical in the manufacturing of pulp. One tonne of production requires 0.7 kg to 1.25 kg of citric acid depending upon the acid content of the pulp. The quality and durability of pulp depends upon the balance of acid and sucrose content. Citric acid and sugar are used in the pulp production to establish the required balance. Due to insufficient supply of citric acid, there is keen competition for the acid among the units resulting in price escalation and black marketing. The market price of citric acid is Rs.85. per kg, but in the open market it varies from Rs. 90 to 100.

➤ **SUGAR**

The sucrose content in the pulp should be in the range of 16.5 per cent to 18.5 per cent. Usually sugar is used when fruits with less sweetness are used. Local varieties of fruits being more sweet require less or no sugar. But the fruits purchased from other districts being less sweet require the addition of sugar. The units have to purchase sugar in open market at high prices. In order to help the Processing Units, it is better if the government supplies sugar at controlled prices.

➤ **TIN PLATES**

Tin Plates are used for packing pulp. Specially coated tin plates are necessary for making pulp-packing tins and are imported from Taiwan and the USA, through government canalizing agencies. The units have to place indent for tin plates with these agencies. These agencies take nearly one year to supply them after receipt of the indent. The units can also purchase from private agencies like Metal Box Company, Poshia Ltd., etc., Heavy customs duties are imposed on the import of tin plates. The government of India exempts import duty on the tin plates used for export market. The units can claim refund of import duty on the quantity of tin plates used for making tins for packing pulp exported to foreign market. It is a cumbersome process to prepare different accounts and claim refund. Sometimes the units entrust the work of collecting the refund amount to the export houses. But the export houses sometimes do not passing on the refund amount collected from the government to the units concerned.

➤ WATER

Water does not appear to be so much of a worrying problem for the units as the other, its low percentage (1.97) among their problems indicates it. Sufficient underground water is available in the district. Only three units are facing this problem, and have made arrangements with neighbouring farmers to supply the required amount of water through a payment of Rs. 6,000 per annum.

➤ LABOUR

Labour is also a serious problem of the industry (it amounts to 7.90 per cent of the total problems). The seasonal nature of the fruit processing industry makes it necessary to employ workers on a temporary basis. To attract temporary workers, the processing units have to offer slightly higher wages than the existing agricultural wages in the area. That is, wages paid by the processing units should be higher than their opportunity wages in agriculture. Further, the processing season also coincides with the busy agricultural season in the district. Hence, fruit processing units in the different region in the district face shortage in labour supply and have to offer slightly higher wages to attract labour. With regard to skilled workers, they are employed temporarily on monthly basis. A small number of skilled workers are employed on a permanent basis for maintaining the machinery and to undertake marketing and accounting activities.

➤ MARKETING

Marketing is a major problem confronting the processing units (6.58 per cent of the total problems of the industry). Gradually the export market is dwindling in spite of incentives offered for exports. On tins used for packing pulp for export no import duty is imposed. Further the market price of pulp in the foreign market is higher. Hence, exporting pulp rather than marketing domestically is more profitable. But unfortunately the demand for pulp in the foreign market is declining. The processing units are exporting pulp to the Gulf Countries. But due to the recent decline in Mango Pulp prices, pulp purchasing orders from the Gulf Countries are declining. In addition, the export houses order other fruit products like jams and jellies along with pulp. Due to the decline in foreign demand many units which failed to secure adequate purchase orders from export houses are compelled to work below their installed capacity. As a result some units have closed down their operations completely. The Export market depends upon advertisement. Hence it is necessary to popularize pulp products in foreign countries. The Processing Units being small and scattered are not in a position to undertake advertisements in foreign countries, either individually or collectively as a consortium. So, the government should undertake the responsibility of finding an export market for fruit processing products. And at the same time the units should undertake the responsibility of reaching more and more consumers in the international market. They should forge new marketing techniques like packing pulp in small polythene packets or in bottles to suit the purse of small consumers.

➤ MALPRACTICES

Marketability of a product depends upon its quality and price. Mango pulp being a food product, utmost care should be taken in maintaining the quality. The quality of pulp depends upon the purity and cleanliness of fruits and use of scientifically required quantities of chemical preservatives in the preparation of the pulp. Clean and good mango fruits should be used for pulp preparation. At the time of slicing fruits spoiled and damaged fruits have to be discarded to preserve the quality of the pulp. But in some processing units of semi-damaged or spoiled fruits are mixed up with good ones, to economize the consumption of sugar and to increase the volume of pulp output. The spoiled fruits being well ripened and sweet, the pulp prepared would contain the necessary sucrose content minimizing the use of sugar. But the pulp thus prepared would not only be of bad quality but also may not last long. This problem is not negligible and has to be resolved.

➤ INFRASTRUCTURE DEVELOPMENT AND MODERNIZATION BY UP-GRADING TECHNOLOGY IN MANGO FRUIT PROCESSING INDUSTRY

This is a very important problem of the processing industry, its percentage score 9.21. To achieve the target of high Productivity and hygiene Quality Products of assured Marketability in the International Competition it is absolutely necessary that the industry given special attention to infrastructure development and up grade from time to time its technology. But both require considerable investment. The units in Chittoor district work for 90 days only from May to July during the Mango Season. And no other Fruits are available to process. The district is also prone to famines therefore the survival of the units and their continue of existence tend to be precarious if the units are hit the Mango Farming community which supplies the raw material and thousands of Skilled and Unskilled labourers who depend on the industry suffer in consequence. If the industry prospers, Government of India would get huge Amounts of Foreign Exchange through Exports. Among the Cluster of processing industry in the district there are nearly 10 Units which are Large-Scale Industries capable of heavy investment, have Aseptic packaging facility and can export their products on their own. The remaining 43 Units are Small-Scale and Medium-Scale Established from the year 1983 onwards, and have very old conventional Mango Pulp Processing Equipment. With the old and outdated Machines it is very difficult to achieve large scale productivity and hygienic Quality products. Now all the 40 units are surviving doing job work for Merchant Exporters and Aseptic packaging Exporters. Most of them are not able to invest huge Amounts on Infrastructure development and Modernization of Technology. At present the 25% Subsidy Assistance given by the government is not adequate for the Investment of Rs.70 Lakh per Unit for up gradation. The fruit processors request the powers that be to grant 50% Subsidy on the present Investment of Rs.70 Lakh per Unit as a Special package under the AEZ Cluster Development.

PROSPECTS OF FRUIT PROCESSING INDUSTRY IN CHITTOOR DISTRICT

As pointed out several firms, Chittoor district is one of the few major mango growing districts in the entire State. There is immense scope for establishing more units in the district in the years to come, as there are some real advantages. By the fruit processing industry in the district is not free from problems as already noted. To recall them: lack of working capital, seasonality of the production, highly seasonal operations of the units, inadequate effort to enhance product range and explore domestic markets, lack of cost optimization effort and the like. Therefore, it is necessary to probe further in to the various problems and visualize future prospects of the industry in the district.

The following factors are favourable to attract entrepreneurs for establishing fruit processing units.

- ❖ Existence of a fairly mature and developed fruit processing cluster, in Chittoor district comprising 53 enterprises, predominantly SMEs, engaged in processing tropical fruits and catering to both domestic and export markets.
- ❖ Easy access to a very large and diverse raw materials base spreading across Chittoor, Kadapa Anantapur and Nellore districts of Andhra Pradesh. All these districts are contiguous, and a variety of tropical fruits (Mango, Papaya, Guava, Pomegranate, Lemon, Banana, Water Melon), vegetables (Tomato, Beans, Okra, Brinjal), tamarind and poultry eggs are available in different seasons within a distance ranging from 5-200 km. Kolar district of Karnataka and North Arcot, Krishnagiri and Dharmapuri districts of Tamilnadu have similar range of products which can be processed.
- ❖ Presence of a large number of service provider's viz. raw materials suppliers, marketing firms, logistics providers and skilled labour.
- ❖ Proximity to major consumption markets viz., Bengaluru (154km.), Chennai (147 km.), and Tirupathi (100 km.) For various end products.
- ❖ Proximity to sea ports at Chennai and Krishnapatnam, international airports at Chennai and Bangalore facilitating export of finished products and import of inputs and capital goods.
- ❖ Encouraging state and central Government policies on fruit processing industries.
- ❖ Incentives offered by Government in terms of minimum demand charges for electric power, market cess, duty draw back etc., for fruit processing enterprises set up in Chittoor district under Agri Export Zone (AEZ) and other schemes.

FINDINGS OF THE STUDY

Regarding the organization of the fruit processing units in Chittoor District majority of them are under the private sector. It means that the private sector plays an important role in the development of the fruit processing industry in the district.

- Non availability of suitable raw materials in terms of size, colour, texture etc., lack of awareness about the processable varieties, low yield and poor quality of raw materials are the main causes for the low productivity of the units.
- Packing materials are not easily and steadily available. One has to get them from Chennai and Mumbai markets. The cost of the packaging material therefore is also very high.
- Marketing efforts are not well-organized by Chittoor district fruit processors to counter the competition from well-established national brands, such as Kissan, Bikaji and Rallies who maintain international standard quality.

➤ Most of the units still follow the traditional method of marketing and so they do not try to take into account the customer's desires and needs.

SUGGESTIONS

The following suggestions have been made for solving some of the processing problems of the fruit processing and for bettering the units performance to enable them to contributing more significantly to India's economy.

- ❖ Citric acid is the main chemical used in pulp production which is in short supply. There is prevalence of black marketing. Scarcity and high price is resulting in improper use of citric acid affecting the quality of pulp. Therefore, government should ensure adequate supply of citric acid at reasonable prices to the processing units. Further, proper supervision and control should be exercised in maintaining the quality of pulp. Any defect in the quality of pulp production has to be dealt with severely.
- ❖ Sugar is purchased in the open market by the units at a high price. Therefore they use sugar inadequately in pulp production so save expenditure. This result in low levels of sucrose content in the pulp. To avoid this defect it is better to supply sugar at controlled rates to the processing units.
- ❖ High cost of tin plates is inevitably increasing packaging expenses. There is an urgent need to reduce the packaging and marketing expenses in order to reduce the price of pulp to make it available within the reach of common man.
- ❖ At present the units are working for 90 days only from May to July Mango season. And no other fruits are available to process further for various reason during the other days of the year. The processing units are providing huge employment for thousands of skill and unskilled workers. By proper utilization of fruits in the district and importing fruits from the neighbouring district, the units can prolong their production season to 120 days. This will reduce the production costs, increase employment opportunities to labourers and improve the profitability of the units.

REFERENCES

1. Prakash Anand: Post Harvest Experience in Agricultural Marketing in Haryana. Political Economy Journal of India, vol. 9, Issues 1 & 2, January-June 2000. ISSN 0971 - 2097.
2. S. K. Goyal: Potential in Agribusiness - Fruit and Vegetable Processing Industry, Journal of International Farm Management. Vol.3 No.2 - January, 2006.
3. State Bank of India, Monthly Review Volume XXXIX No. 2, February 2013.
4. Yojana, A Development Monthly.

WEBSITE

5. www.apitco.org

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce, Economics & Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue as well as on the journal as a whole, on our E-mail infoijrcm@gmail.com for further improvements in the interest of research.

If you have any queries please feel free to contact us on our E-mail infoijrcm@gmail.com.

I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-
Co-ordinator

DISCLAIMER

The information and opinions presented in the Journal reflect the views of the authors and not of the Journal or its Editorial Board or the Publishers/Editors. Publication does not constitute endorsement by the journal. Neither the Journal nor its publishers/Editors/Editorial Board nor anyone else involved in creating, producing or delivering the journal or the materials contained therein, assumes any liability or responsibility for the accuracy, completeness, or usefulness of any information provided in the journal, nor shall they be liable for any direct, indirect, incidental, special, consequential or punitive damages arising out of the use of information/material contained in the journal. The journal, nor its publishers/Editors/Editorial Board, nor any other party involved in the preparation of material contained in the journal represents or warrants that the information contained herein is in every respect accurate or complete, and they are not responsible for any errors or omissions or for the results obtained from the use of such material. Readers are encouraged to confirm the information contained herein with other sources. The responsibility of the contents and the opinions expressed in this journal is exclusively of the author (s) concerned.

ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

Our Other Journals

