INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

IJRCM

IJRCM

CONTENTS

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We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the areas of Computer Science & Applications;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 mentionthe 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.

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

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

http://ijrcm.org.in/

V

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

THE CURRENT SCENARIO OF GOLDEN FIBRE: A SPECIAL STUDY ON JUTE IN THE CONTEXT OF INDIA

RUSHA SARKAR
RESEARCH SCHOLAR
REGIONAL AND ECONOMIC PLANNING
BARKATULLAH VISHWAVIDYALAYA
BHOPAL

ABSTRACT

Jute, the Golden Fibre occupies an important place not in the economy of West Bengal but also in the National Economy of India through out years. Jute is the cheapest vegetable fibre procured from the skin of the plant's stem and second most important vegetable fibre after cotton for production, consumption and also for availability. Basically, Jute is 100% bio-degradable, natural, renewable and eco-friendly product. Jute was one of the commercial product under british commercialization policy. Jute is actually a export oriented product. Jute fibres are used for curtains, chair coverings, carpets, area rugs, hession cloth etc. Jute is used in paper making and also in manufacturing industry, textile industry etc. The paper discusses various importance of jute goods and jute plants. The paper discusses the production scenario of jute goods since 1995-96 to 2013-14 and I find out the estimated value, of production with the help of time-series analysis. The paper also discusses the domestic consumption scenario and exports of jute goods after reforms period and growth rates. The paper elaborates various problems faced by jute industry currently. Finally, I give some suggestions to improve the condition of the jute industries.

KEYWORDS
Bio-degradable, Renewable, Eco-friendly, Commercialization. Reforms period.

INTRODUCTION
Jute, the **Golden Fibre** is a long, soft, silky and shiny natural fibre occupies an important place not in the economy of West-Bengal but also in the national economy of India. It is estimated that the jute industry provides direct employment to 0.37 million workers in organized mills and supports the livelihood of around 4.0 million farm families in India. More of it, there are a large number of persons engaged in the trade of jute. India exports 216000 metric tons jute in 2013-14 and earns Rs. 1880.63 cores also. In fact jute is the cheapest vegetable fibre procured from the skin of the plant`s stem and second most important vegetable fibre after cotton for various factors like uses global consumption, production, availability. Actually, jute is 100% bio-degradable, natural, renewable and eco-friendly product used for packaging, textiles, non-textile, construction and agricultural sector also.

TYPES OF JUTE
White jute (Corchorus Capsularis)- Ain-e Akbari by Abul Fazal in 1590 during the era of Akhbar explained that the poor villagers of India used to wear clothes made of jute Simple handlooms and hand spinning wheels were used by the weavers. Mostly Bengalies used ropes and twines made of white jute from very much earlier times for various purposes. In fact, cultivation of raw jute provides not only fibres but also stick which is used as fuel and building material by the farming community.

Tossa Jute (Corchorus Oligotorius)- India is Tossa Jute`s top producer. It`s fibre is softer, silkier and stronger than white jute. This Tossa Jute is used as an herb in Middle Eastern and African countries and is very popular in some Arab countries, Egypt, Jordon, Syria as a soup-based dish, or sometimes with meat or lentils. Actually it is high in protein, vitamin c, beta-carotene, calcium and iron. The climate of Ganges Delta and soil of Bengal is suitable for this golden fibre (Paat)

BRIEF HISTORY ABOUT JUTE
Jute has been used since ancient times globally. **Qiu-shiyu**, researcher of the Harbin Academy of Sciences and expert of History said that **Jews** used to take part in the work of designing "Jiaozi" which was made of coarse jute paper. Jute paper was also used by **Western Han Dynasty** (206 BC-220AD) in China

In India, the British East India Company was the first trader of raw Jute during 19th century Dundee Jute mill in Scotland and the increase of the Dundee Jute industry was the result of production and export of raw jute from the Indian sub-continent. Thus the **commercialization of jute** which was one of the British economic policy started.

The first jute mill was established at Rishra in Calcutta in 1855 as there was an abundant supply of labour, ample, coal for power, shipping facility for international markets. By 1869, five mills were operating with 950 looms and the growth was rapid. By 1910, 30'685 looms exported more than a billion yards of cloth and over 450 million bags. After that the jute industry in India enjoyed even more remarkable expansion and rising to commanding leadership by 1939 with a total of 68'377 looms in Calcutta.

After the fall of British Empire in India during 1947 the jute industries of India have been fallen. After liberalization of Pakistan and Bangladesh, Bangladesh also sets up new industry and exports jute.

REVIEW OF LITERATURE
Review of literature in the forms of various research and books written on this particular subject is a very worthwhile endeavour before embarking on research in this field, as it would give us an idea regarding varied kinds of knowledge skills and insights already provided by other researchers. Following is a brief account of the same in this regard-

Short essay in the commercialization of Indian Agriculture by **R Verma** explained about the net result of the commercialization by the British on the Indian Farmers. **What are the problems faced by jute textiles in India?** by **K Raja** described about various problems faces by Indian Jute Industry. **Problems of Jute Industry in India** by **Suraj Yadav** explained about the major problems of Indian Jute Industries.

OBJECTIVES
It is the major part of any research because without any purpose the research is fruitless. So, I have some objectives for this research which are mentioned bellow-

i)   What is the importance of Jute?
ii)   Which are the various Regulatory organization in Jute Sector?
iii)   What is the production scenario of Jute goods after reforms period?
iv)   What is the domestic consumption scenario of jute goods after reforms period?
v)   How much jute goods exports from India after reforms period and what is their values?
vi)   What are the current problems faced by Jute Industries?
vii)   Give some suggestions to develop these industries.

METHODOLOGY

The analysis of the research paper is based on various statistical tools. The data are collected from office of the jute commissioner.

At first to calculate basic growth rate I use growth rate formula which is following-

Basic Growth Rate= $\frac{Present\ value - Past\ value}{Past\ value}$ x100

Secondly, to estimate the **trend value** of production I use **Least square method of** time series analysis.

The straight line trend is represented by the following equation

Y_c = a + bX

Where, Y_c is used to estimate

the values of Y

Y= dependent variable i.e. production

X= independent variable i.e. time

a= intercept of Y variable when X=0

b= slope of the line.

To determine the values of 'a' and 'b' in a linear equation by the least squares method we are required to solve the following equation-

$\sum Y$ = Na + b$\sum X$ (i)

$\sum XY$ = a$\sum X$ + b$\sum X^2$ (ii)

N represents the number of years.

THE IMPORTANCE OF JUTE

Actually, Jute is the second most important vegetable after cotton for various reasons like production, consumption, global uses and so an. So, the uses of jute and jute fibre and their importance are uncountable. Some of the importance are listed bellow-

i)   Row Jute is an important cash crop to the farmers.

ii)   Jute Stick is used as fuel and building material by the farming community.

iii)   Jute matting is used to prevent flood erosion.

iv)   Jute is used to make cloth and also sacks and coarse cloth.

v)   The fibres are used for used for curtains, chair coverings, carpets, area rugs, hessian cloth etc.

vi)   Jute is used also for paper-making

vii)   Jute is used for imitation silk.

viii)   Jute was used in manufacturing industry as a construction fabric and in the sackings, carpets, wrapping fabrics etc.

ix)   Jute is used in the manufacture of a various numbers of fabrics like Hessian cloth, sacking, carpet backing cloth (CBC) and canvas.

x)   Jute is used for packaging which is an eco-friendly substitute.

xi)   Diversified Jute products like espadrilles, soft sweaters, cardigans, floor coverings, home textiles, high performance technical textiles, Geotextiles, composites etc. are uses very much today's life.

xii)   Jute is also used to make ghillie suits which are used as camouflage and resemble grasses or brush.

xiii)   Jute plants and leaves are consumed as a vegetables in various countries India, Nigeria, North Western Uganda, Philippines etc.

VARIOUS REGULATORY ORGANISATIONS IN JUTE SECTOR

a)   Subordinate Office Under Ministry of Textiles

i)   Office of Jute commissioner

b)   Advisory Boards under Ministry of Textiles

i)   Jute Advisory Board

c)   Statutory Bodies Under Ministry of Textiles

i)   National Jute Board.

d)   Public Sector undertakings under Ministry of Textiles

i)   Jute Corporation of India (JCI) Ltd. Kolkata.

ii)   National Jute Manufactures Corporation Ltd. (NJMC), Kolkata.

iii)   Birds Jute & Exports Ltd. (BJEL), a subsidiary of NJMC.

e)   Other organizations supported by Ministry of Textiles in Jute Sector

i)   Indian Jute Industries Research Association (IJIRA), Kolkata

ii)   International Jute Study Group (IJSG)

iii)   Institute of Jute Technology (IJT), Kolkata

iv)   Central Research Institute for Jute Allied Fibres (CRIJAF)

v)   National Institute for Research in Jute and Fibre Technology (NIRJFT).

TABLE-1: PRODUCTION SCENARIO OF JUTE GOODS AFTER REFORMS PERIOD (QTY: IN 000'M Tons)

(APRIL / MARCH)	HESSIAN	SACKING	CBC	OTHERS	TOTAL
1995-96	413.9	676.3	30.5	5312.3	1433.0
1996-97	368.7	666.6	25.2	340.4	1400.9
1997-98	392.4	864.6	19.8	401.6	1678.4
1998-99	344.1	903.3	18.5	330.3	1596.2
1999-00	344.5	909.2	8.0	328.5	1590.2
2000-01	337.9	952.9	6.6	327.5	1624.9
2001-02	275.3	1034.3	5.0	286.2	1600.8
2002-03	338.3	1000.0	5.4	278.1	1621.8
2003-04	305.2	979.3	4.7	281.1	1571.3
2004-05	310.3	992.0	4.0	306.8	1613.1
2005-06	320.0	1007.5	6.2	248.5	1582.2
2006-07	250.3	874.7	2.9	228.4	1356.3
2007-08	350.3	1143.0	6.0	279.7	1776.0
2008-09	297.8	1071.4	4.5	260.0	1633.7
2009-10	206.5	921.6	2.4	192.6	1323.3
2010-11	244.4	1076.9	4.7	239.7	1565.7
2011-12	239.9	1165.1	3.6	173.8	1582.4
2012-13	210.0	1218.2	2.9	160.2	1591.3
2013-14	202.5	1150.4	3.3	171.5	1527.7
	Hessian	Sacking	CBC	Others	Total

Source: office of jute commissioner

From the table it is found easily the production scenario of jute goods after reforms period. (the period after 1991). The table shows the production since 1995-96 to 2013-14. The total production of jute goods in 1995-96 was 1433,000 Metric tons including Hessian, Sacking and CBC and total production of jute goods is 1527700 metric tons including Hessian, sacking, CBC in 2013-14. The production of jute goods downfall in various years like 1996-97, (1400900 metric tons), 1998-99 (1596200 metric tons), 1999-00 (1590200 metric tons), 2001-02 (1600800 metric tons), 2003-04 (1571300 metric tons) 2005-06 (1582200 metric tons), 2006-07 (1356300 metric tons) 2008-09 (1633700 metric tons), 2009-10 (1323300 metric tons), 2013-14 (1527700 metric tons). It is also shown in the following bar diagram-

BAR DIAGRAM 1: TOTAL PRODUCTION OF JUTE GOODS
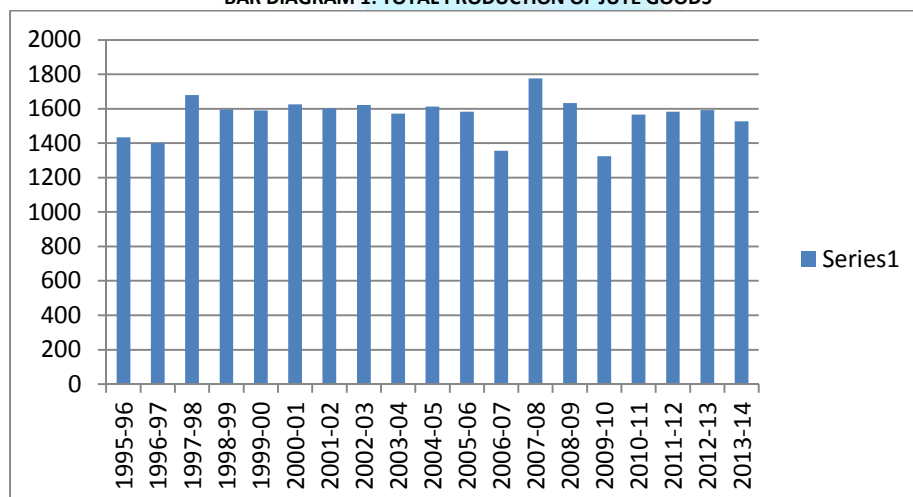
TABLE -2: DOMESTIC CONSUMPTION SCENARIO OF JUTE GOODS AFTER REFORMS PERIOD (QTY: IN 000'M Tons)

(APRIL / MARCH)	HESSIAN	SACKING	CBC	OTHERS	TOTAL
1996-97	259.8	652.0	1.7	222.5	1336.0
1997-98	285.8	842.4	1.5	257.5	1387.2
1998-99	286.2	886.3	1.3	230.5	1404.3
1999-00	287.0	907.4	1.4	230.9	1426.7
2000-01	269.7	935.2	0.8	229.4	1435.1
2001-02	243.0	1021.4	0.9	195.5	1460.8
2002-03	251.3	954.5	1.9	167.7	1375.7
2003-04	253.3	910.0	0.3	179.3	1342.9
2004-05	244.8	972.4	0.5	176.5	1394.2
2005-06	237.6	974.2	0.7	165.3	1378.8
2006-07	209.1	854.4	0.5	152.7	1216.2
2007-08	271.4	1102.0	1.2	168.2	1542.7
2008-09	249.8	1043.0	0.3	142.5	1435.6
2009-10	182.6	879.8	1.2	141.9	1205.5
2010-11	182.3	1034.4	0.9	133.9	1351.5
2011-12	184.2	1079.7	0.1	117.9	1381.9
2012-13	165.8	1118.7	0.8	113.9	1399.0
2013-14	157.6	1043.1	0.4	126.4	1327.5
	Hessian	Sacking	CBC	Others	Total

Source: office of jute commissioner

From this table we can easily understood the scenario of the domestic consumption of jute goods since 1996-97 to 2013-14. The table shows the consumption of hession, sacking, CBC and also others. The domestic consumption of jute goods in 1996-97 was 1336000 metric tones and in 2013-14 it is 1327500 metric tones. The table shows the fluctuation of domestic consumption of jute goods in various years. The downfall of domestic consumption of jute goods in various years. are such as in 2002-03 (1375700 metric tons), 2003-04. (1342900 metric tons), 2005-06 (1378800 metric tons), 2006-07 (1216200 metric tons) 2008-09 (1435600 metric tons), 2009-10 (1205500 metric tons), 2013-14 (1327500 metric tons). It is illustrated through the Bar diagram 2

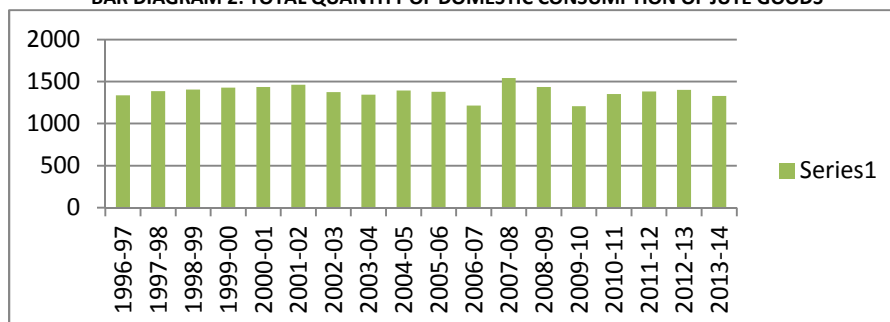**BAR DIAGRAM 2: TOTAL QUANTITY OF DOMESTIC CONSUMPTION OF JUTE GOODS**

TABLE-3: JUTE GOODS EXPORTS FROM INDIA AFTER REFORMS PERIOD (QTY: IN 00 0' M. Tons VALUE: Rs / Crores)

EXPORTS OF JUTE GOODS					
(APRIL / MARCH)	HESSIAN	SACKING	CBC	OTHERS	TOTAL	VALUE
1996-97	76.3	6.7	15.4	5.6	155.0	572.3
1997-98	103.5	17.9	13.5	9.7	240.0	694.7
1998-99	65.3	8.0	15.3	12.9	171.0	582.3
1999-00	57.4	5.6	6.3	15.8	169.0	571.5
2000-01	61.4	17.3	5.9	11.5	181.4	646.3
2001-02	36.8	12.2	4.4	13.7	146.1	567.5
2002-03	77.4	37.5	3.8	22.5	229.2	916.6
2003-04	157.1	33.4	5.2	24.1	310.4	1051.88
2004-05	153.7	31.2	1.5	15.0	321.8	1146.9
2005-06	171.6	33.2	0.9	11.0	285.8	1186.24
2006-07	122.2	31.6	0.1	10.6	242.8	1055.16
2007-08	67.8	30.0	N.A	14.4	204.3	1143.57
2008-09	53.0	53.2	N.A	10.7	199.8	1216.16
2009-10	31.3	26.5	N.A	8.3	110.5	859'46
2010-11	53.9	40.6	N.A	10.4	199.3	1363.29
2011-12	58.3	81.1	N.A	8.2	201.1	1502.14
2012-13	51.2	103.8	N.A	59.0	214.0	1598.05
2013-14	51.4	109.4	N.A	55.3	216.0	1880.63
	Hessian	Sacking	CBC	Others	Total	VALUE

Source: office of jute commissioner

From this table we can calculate how much jute goods exports from India and what is their values since 1996-97 to 2013-14. The exports includes hessian, sacking, CBC and others. The table also shows that exports and their values are also fluctuated. 155000 metric tones jute goods were exported in 1996-97 and 216000 metric tones in 2013-14. The exports of jute goods reduces in 1998-99 (171000 metric tones), 1999-00 (169000 metric tones), 2001-02(146100 metric tons),2005-06(285800 metric tons), 2006-07 (242800 metric tons), 2007-08 (204300 metric tons), 2008-09 (199800 metric tones), 2009-10 (110500 metric tons). The scenario is cleared through the following bar diagram also –

BAR DIAGRAM 3: TOTAL EXPORT OF JUTE GOODS
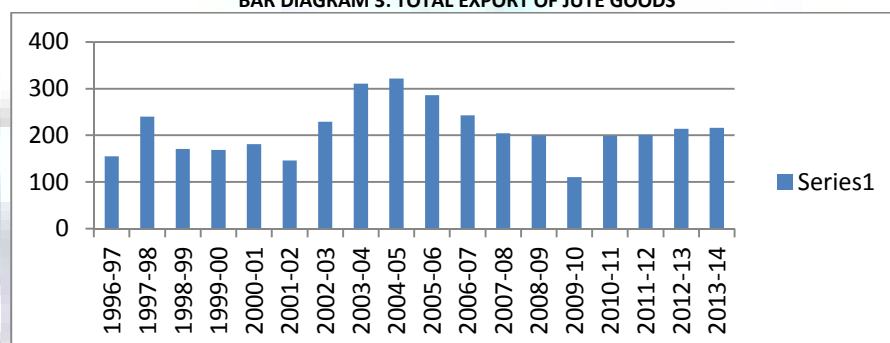
ANALYSIS

Here actually I want to find the growth rate of production of jute goods, domestic consumption of jute goods, exports of jute goods and also the trend value of the jute production-through statistical application.
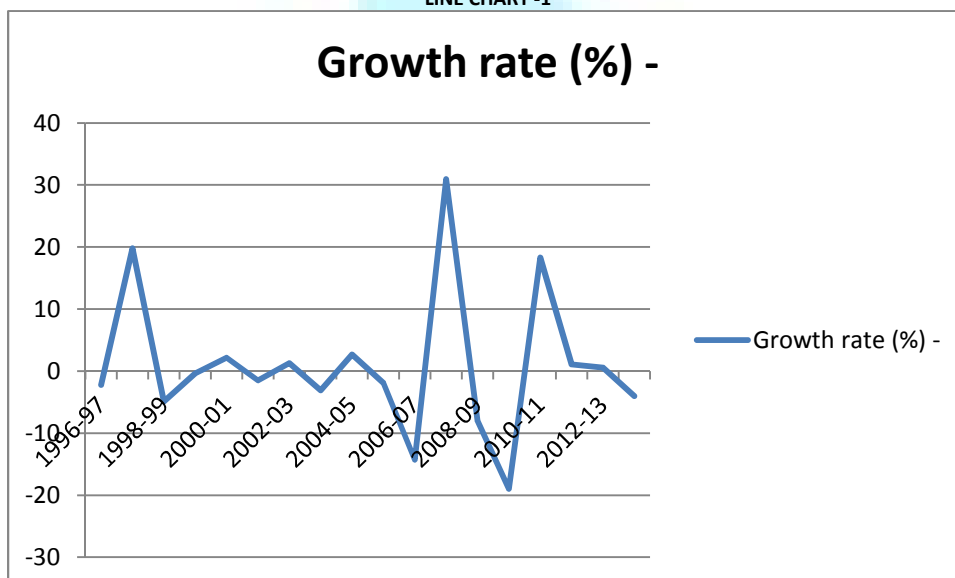
At first to find out the growth rate of production of jute goods the basic growth rate formula is used. Actually basic growth rates are simply expressed as the difference between two values in time in terms of percentage of the first value.

Basic Growth rate = $\frac{\text{Present value} - \text{Past Value}}{\text{Past Value}} \times 100$

TABLE -4: GROWTH RATE OF PRODUCTION OF JUTE GOODS (QTY= IN00'M Tons)

April/March	Total Quantity	Growth rate (%)
1995-96	1433.0	-
1996-97	1400.9	-2.24
1997-98	1678.4	19.80
1998-99	1596.2	-4.90
1999-00	1590.2	-0.38
2000-01	1624.9	2.19
2001-02	1600.8	-1.49
2002-03	1621.8	1.31
2003-04	1571.3	-3.11
2004-05	1613.1	2.66
2005-06	1582-2	-1.91
2006-07	1356.3	-14.27
2007-08	1776.0	30.94
2008-09	1633.7	-8.01
2009-10	1323.3	-19.00
2010-11	1565.7	18.31
2011-12	1582.4	1.06
2012-13	1591.3	0.57
2013-14	1527.7	-4.00

Source: Calculated from office of jute commissioner data

LINE CHART -1

From the above table and chart we can easily find out that since 1995-96 to 2013-14 the highest growth rate of production of jute goods was in 2007-08 which was 30.94% and the lowest growth rate was in 2009-10 which was -19.00%

TABLE-5: GROWTH RATE OF DOMESTIC CONSUMPTION OF JUTE GOODS (QTY: In 000' M Tons)

April/March	Total Quantity	Growth rate (%)
1996-97	1336.0	-
1997-98	1387.2	3.83
1998-99	1404.3	1.23
1999-00	1426.7	1.60
2000-01	1435.1	0.59
2001-02	1460.8	1.80
2002-03	1375.7	-5.82
2003-04	1342.9	-2.38
2004-05	1394.2	3.82
2005-06	1378.8	-1.10
2006-07	1216.2	-11.80
2007-08	1542.7	26.84
2008-09	1435.6	-6.94
2009-10	1205.5	-16.02
2010-11	1351.5	12.11
2011-12	1381.9	2.24
2012-13	1399.0	1.23
2013-14	1327.5	-5.11

Source: Calculated from data collected from Office of Jute Commissioner Data

LINE CHART 2
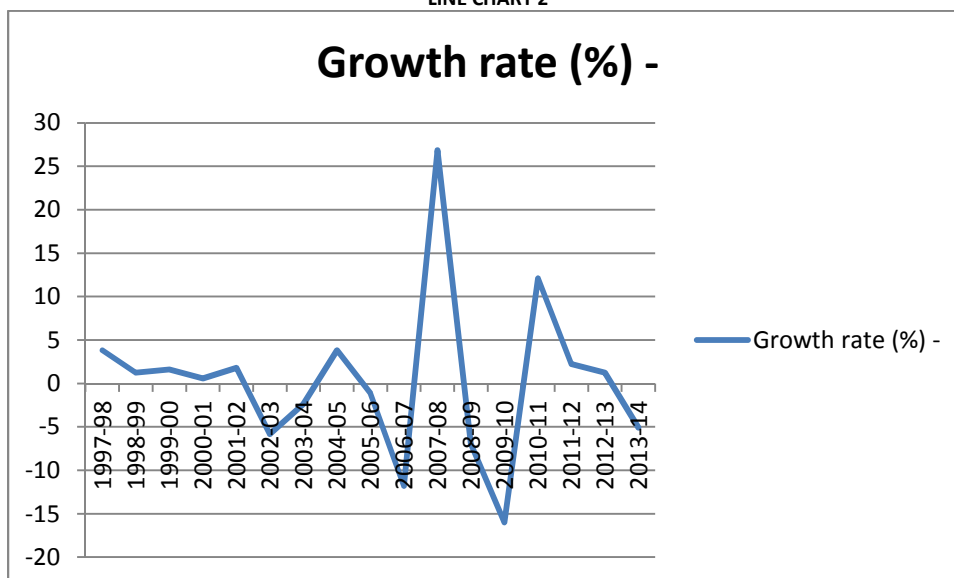
From the above table and line chart the scenario of domestic consumption of jute goods since 1996-97 to 2013-14 easily understood. Among these years the growth rate was highest in 2007-08 which was 26.84% and was lowest in 2009-10 and that was -16.02%

TABLE-6: GROWTH RATE IN THE EXPORT OF JUTE GOODS (QTY=In000'Tons.)

April/March	Total Quantity	Growth rate (%)
1996-97	155.0	-
1997-98	240.0	54.83
1998-99	171.0	-28.75
1999-00	169.0	-1.16
2000-01	181.4	7.33
2001-02	146.1	-19.45
2002-03	226.2	54.82
2003-04	310.4	37.22
2004-05	321.8	3.67
2005-06	285.8	-11.18
2006-07	242.8	-15.04
2007-08	204.3	-15.85
2008-09	199.8	-2.20
2009-10	110.5	-44.70
2010-11	199.3	80.36
2011-12	201.1	0.90
2012-13	214.0	6.41
2013-14	216.0	0.93

Source: Calculated from Office of Jute Commissioner Data

LINE CHART-3
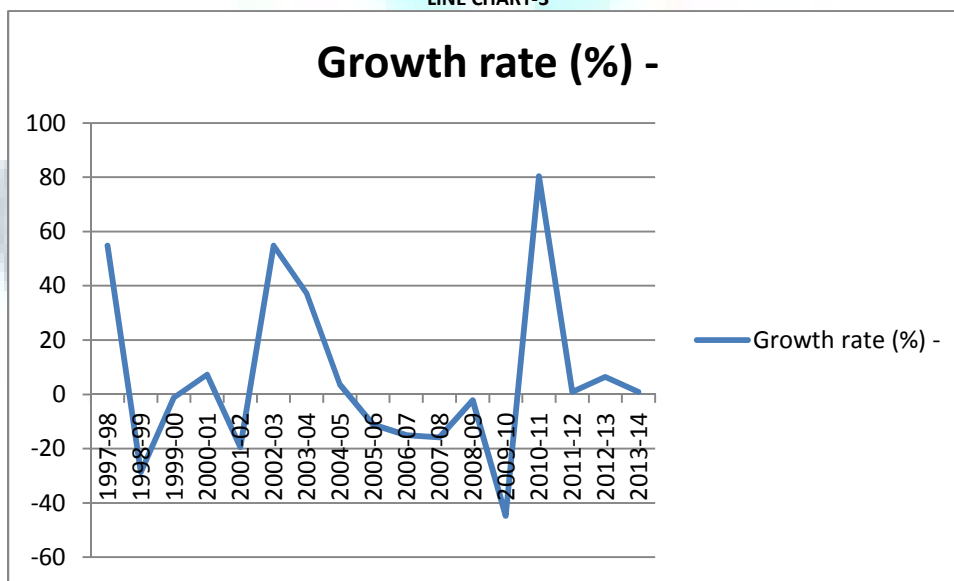
From table 6 and line chart 3 it is find out that exports growth rate for jute goods was highest in 2010-11 and that was 80.36% and lowest in 2009-10 and that was – 44.70%.

One of the most important tasks before economists and businessman these days is to make estimates for the future. So, I here also try to find out the **trend values** of production of jute goods because it helps in planning future operations.

To find out the **trend values** I use **Least squares method** of time series analysis. The straight line trend is represented by the equation

$Y_c = a+bx$

Where Y_c is used the designate the calculated values of Y which is a dependent variable. X is the independent variable, b represents the slope of the line and a is the intercept value of the Y variable when X=0

To determine the value of 'a' and 'b' we need to solve the following equation-

$\sum Y = Na + b \sum X$------- (i)

$\sum XY = a\sum X + b \sum X^2$---- (ii)

N is the member of years.

TABLE-7: TREND VALUE OF PRODUCTION OF JUTE GOODS (Qty- In 000'M Tons)

Years April/March	Total Production	Trend values Y_c – a+bx
1995-96	1433.0	1557.53+0.40 (1) = 1557.93
1996-97	1400.9	1557.53+0.40 (2) =1558.33
1997-98	1678.4	1557.53+0.40 (3) = 1558.73
1998-99	1596.2	1557.53+0.40(4) = 1559.13
1999-00	1590.2	1557.53+0.40 (5) 1559.53
2000-01	1624.9	1557.53+0.40 (6) =1559.93
2001-02	1600.8	1557.53+0.40 (7) = 1560.33
2002-03	1621.8	1557.53+0.40 (8)= 1560.73
2003-04	1571.3	1557.53+0.40(9) = 1561.13
2004-05	1613.1	1557.53+0.40 (10)= 1561.53
2005-06	1582.2	1557.53+0.40 (11) = 1561.93
2006-07	1356.3	1557.53+0.40(12) = 1562.33
2007-08	1776.0	1557.53+0.40(13) = 1562.73
2008-09	1633.7	1557.53+0.40(14) = 1563.13
2009-10	1323.3	1557.53.+0.40(15) = 1563.53
2010-11	1565.7	1557.53+0.40(16) = 1563.93
2011-12	1582.4	1557.53+0.40(17) = 1564.33
2012-13	1591.3	1557.53+0.40(18) = 1564.73
2013-14	1527.7	1557.53+0.40 (19) = 1565.13

Source: Calculated form office of jute commissioner data

After solve both (i) and (ii) equation for this data I find, that

a= 1557.53

and b= 0.40

So, the trend values are

Y_c= 1557.53+0.40X

From this trend value with the help of least square method one can easily find out the estimate value of coming year.

So, I also try to find out the estimate quantity of production of jute goods for (2014-15) and (2015-16)

Trend value of (2014-15) = 1557.53+0.40(20)=1565.53 (000'm tons)

Trend value of (2015-16)= 1557.53+0.40 (21) = 1565.93 (000' m tons)

GRAPH 1: SHOWING STRAIGHT LINE TREND (METHOD OF LEAST SQUARE)
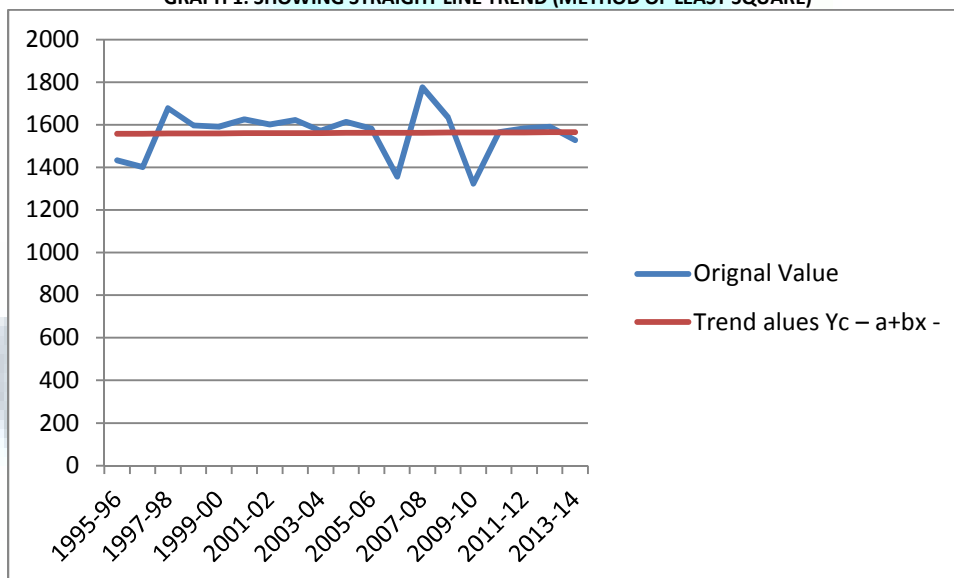
THE CURRENT PROBLEMS FACED BY JUTE INDUSTRIES

i) **Application of the Laws of Returns-** As a result of the laws of diminishing returns which has universal applicability, the Indian jute industry and its production diminishes.

ii) **Lack of modernization of Mills and Industry:-** As the mills are tool old and its all machineries faced various problems the production of jute goods diminishes.

iii) **Shortage of Raw Materials-** After separation from Bangladesh India faced a major problem i.e., shortage of raw jute.

iv) **High Cost of Production:-** The jute industry which has unecominic units for the production suffers for the high cost of production because of high price of raw jute and unreliable supply of raw jute for the mills.

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT   83

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

http://ijrcm.org.in/

v) **Labour- intensive-technique:-** Indian jute industry applies **labour-intensive techniques** even today. As a result the jute production of goods diminishes. "The continued dependence on an antiquated labour intensive technology has now turned 70 percent of the jute mills sick." (Gonguli, R, Economic Times, July 7, 1994)

vi) **Shortage of Power Supply:-** Load-shedding creates a major problem for the jute industry

vii) **Substitute goods**:- Plastic and synthetic goods which are substitute for jute goods creates problems for jute industry.

viii) **Loss of foreign Market:-** Before our independence India has monopoly in raw jute and manufactures in foreign market. But newly started jute industry in Bangladesh has captured some of the markets of Indian jute goods.

ix) Lack of proper information for jute farmers

x) Lack of proper incentives to jute sector

xi) Lack of promotion for jute mill workers.

xii) Lack of Research in jute sector.

SOME SUGGESTIONS TO DEVELOP JUTE INDUSTRIES

i) **Modernization and Rationalization** of jute Industries and Mills should be required properly.

ii) **Compulsory use** of jute bags in food grains, sugar, cement, fertilizers is required.

iii) **Totally ban** on synthetic and plastic bags which are harmful and not eco-friendly.

iv) Use of **e-learning** and **e-commerce** for this industry.

v) Increase **incentives** in jute sector.

vi) To create various **welfare schemes** for the workers of mill and industries of this sector as well as for the farmers who produces raw jutes.

vii) **Reduces** high cost of production.

viii) To increase **capital** and buy new machineries for the mills and industries.

ix) To create **awareness** of jute goods among the consumers.

x) For increase **foreign demand** we should manufacture various jute diversified products as well as modern jute modified products.

xi) To increase **Research** centers for the jute sector.

REFERENCES

1. "Applied and Business statistics" – Dr. Anjum Abrar (P-124-160) → Edition-2011

2. "Business Statistics" – Dr. K.L. Gupta (P-99-137) → 12ᵗʰ Edition.

3. Basu, G.A.K. Sinha and S.N. Chattopadhyay "Properties of Jute Based Ternary Blended Bulked yarns". Man-Made Textiles in India Vol. 48, no. 9 (sep-2005): 350-353 (AN18605324)

4. Chattopadhyay, S.N., N.C. Pan, and A. Day. "A Novel process of Dyeing of Jute Fabric Using Reactive Dye" Textiles Industry of India, Vol. 42, no.9 (sep 2004): 15-22 (AN17093709).

5. "Elementary Statistical Methods" – S.P. Gupta (P-363-403) → Third Edition.

6. International Jute Study group (IJSG) (www.jute.org)

7. Jute Genome Project (www.jutegenome.org)

8. "Office of the jute commissioner- Ministry of Textiles". www.jutecomm.gov.in

9. "Research Methodology, Methods and Techniques" – C.R. Kothari, Gaurav Garg (Third Edition)

10. "Statistics – world production of jute fibres from 2004-05 to 2010-11 (www.jute.org)

11. "Statistics- World Import of row jute, kenaf and Allied fibres" (www.jute.org)

12. Various websites through Goole.com

13. Vijaya Kumar, K.A. and P.R. Raajendraa 'A' New Method to determine the Proportion of jute in a Jute/Cotton blend. "Asian Textile Journal, Vol. 14, no.5 (May 2005): 70-72 (AN18137355)

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 tosupply 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 youhave 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