

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 4255 Cities in 176 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.	SWOT ANALYSIS ON GREEN MARKETING: AN EMPIRICAL INVESTIGATION <i>K. SHARIFA NIZARA & DR. I. MOHAMED SHAW ALEM</i>	1
2.	MANAGEMENT PHILOSOPHY AND PRACTICES IN BHAGAVAD GITA: AN ANALYSIS <i>DR. KIRAN ARORA</i>	5
3.	IMPACT OF BEEKEEPING ON INCOME AND EMPLOYMENT: A STUDY IN CENTRAL PROVINCE OF ZAMBIA <i>SYED ALI</i>	8
4.	FOREIGN DIRECT INVESTMENT IN INSURANCE SECTOR: TRENDS AND OPPORTUNITIES IN INDIA <i>KULDEEP KUMAR</i>	13
5.	LAND COMPENSATION AND ITS IMPACT ON RURAL ECONOMY: A STUDY ON RAILWAY PROJECT IN PAPUM PARE DISTRICT OF ARUNACHAL PRADESH, INDIA <i>DR. TASI KAYE & BIRI AMJI</i>	18
6.	INCOME AND EMPLOYMENT OPPORTUNITIES OF WOMEN IN RURAL LAKHIMPUR DISTRICT OF ASSAM <i>DR. GOBIN CHANDRA BORUAH & RUMEE DUTTA</i>	24
7.	SUSTAINABLE AGRICULTURAL DEVELOPMENT AND RURAL POVERTY IN INDIA <i>DR. JASMEET KAUR</i>	28
8.	CHALLENGES AFFECTING ORGANISED RETAILING IN INDIA <i>MANOJ KUMAR SINGH</i>	32
9.	DECADAL ANALYSIS OF EFFECT OF LITERACY RATE ON CHILD LABOUR IN CONTEXT TO INDIAN U.T.'s <i>RITU PRIYA</i>	35
10.	ASSESSING THE IMPACT OF STORE AESTHETICS AND ADVERTISEMENT ON CONSUMER PERCEPTION TOWARDS BRANDED MEN'S ATTIRE: AN EMPIRICAL INVESTIGATION <i>DIPTI JAIN</i>	39
11.	ETHICS AND VALUES IN BUSINESS ORGANISATION <i>SANDEEP YADAV</i>	45
12.	MACROECONOMIC VARIABLES AND ITS IMPACT ON STANDAND AND POOR BOMBAY STOCK EXCHANGE SENSITIVE INDEX <i>DR. S.SELVAKUMAR & R. NANDHINI</i>	48
13.	TAX REVENUE AND ITS IMPACT ON ECONOMIC GROWTH OF INDIA: AN EMPIRICAL STUDY <i>MEHRAJ U DUN BATHANGI & DR. SHAUKAT HASEEN</i>	53
14.	VALIDITY OF RETAIL SERVICE QUALITY SCALE (RSQS) IN UNORGANISED RETAIL OUTLETS LOCATED IN RURAL ENVIRONMENT <i>N. VIJAYALAKHSMI & DR. SALEEM KHAN</i>	58
15.	THE LEGAL ORIGIN OF THE PRINCIPLE OF 'FREE, PRIOR, INFORMED CONSENT' AND ITS APPLICATION TO NATURAL RESOURCE PROJECT DEVELOPMENTS <i>THUO NJOROGÉ DANIEL</i>	62
16.	THE HIPC INITIATIVE AND THE SUSTAINABILITY OF THE NATIONAL DEBT IN CAMEROON <i>JUMBO URIE ELEAZAR & TAFKEU METIAMBENG MARIE JOSEE</i>	66
17.	THE IMPACT OF ADEQUATE AND AFFORDABLE HOUSING ON SUSTAINABLE DEVELOPMENT: A CASE STUDY OF RWANDA <i>SYLVIE NIBEZA</i>	73
18.	IMPACT OF LAND ACQUISITION ON SOCIAL CONDITIONS OF FARMERS <i>JYOTI SANGWAN</i>	81
19.	DOES THE QUALITY OF CORPORATE GOVERNANCE AFFECT THE FINANCIAL PERFORMANCE IN INDIAN IT SECTOR? AN INSIGHT <i>NIDHI TYAGI</i>	83
20.	AN EMPIRICAL ANALYSIS OF FINANCIAL SECTOR REFORM AND ITS IMPACT ON NIGERIAN ECONOMY (1980-2014) <i>MAGAJI ABDULLAH USMAN</i>	88
	REQUEST FOR FEEDBACK & DISCLAIMER	96

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 Engineering & Technology, Urjani

ADVISORS

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

FORMER CO-EDITOR

DR. S. 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

FORMER 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/Mkt./HRM/General Mgt./Engineering/Economics/Computer/IT/ Education/Psychology/Law/Math/other, please specify)

DEAR SIR/MADAM

Please find my submission of manuscript entitled ' _____ ' for possible publication in one of 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 co-authors of this manuscript have seen the submitted version of the manuscript and have agreed to their inclusion of names as co-authors.

Also, if my/our manuscript is accepted, I agree to comply with the formalities as given on the website of the journal. The Journal has discretion to publish our contribution in any of its journals.

NAME OF CORRESPONDING AUTHOR :

Designation :

Institution/College/University with full address & Pin Code :

Residential address with Pin Code :

Mobile Number (s) with country ISD code :

Is WhatsApp or Viber active on your above noted Mobile Number (Yes/No) :

Landline Number (s) with country ISD code :

E-mail Address :

Alternate E-mail Address :

Nationality :

NOTES:

- a) The whole manuscript has to be in **ONE MS WORD FILE** only, which will start from the covering letter, inside the manuscript. **pdf. version is liable to be rejected without any consideration.**
- b) The sender is required to mention the following in the **SUBJECT COLUMN of the mail:**
New Manuscript for Review in the area of (e.g. Finance/Marketing/HRM/General Mgt./Engineering/Economics/Computer/IT/ Education/Psychology/Law/Math/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 expected to be below **1000 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 within twenty four hours** 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 a separate mail to the journal.
- g) The author (s) name or details should not appear anywhere on the body of the manuscript, except the covering letter and the cover page of the manuscript, in the manner as mentioned in the guidelines.

2. **MANUSCRIPT TITLE:** The title of the paper should be **bold typed, centered and fully capitalised**.
3. **AUTHOR NAME (S) & AFFILIATIONS:** Author (s) **name, designation, affiliation (s), address, mobile/landline number (s), and email/alternate email address** should be given underneath the title.
4. **ACKNOWLEDGMENTS:** Acknowledgements can be given to reviewers, guides, funding institutions, etc., if any.
5. **ABSTRACT:** Abstract should be in **fully italicized text**, ranging between **150 to 300 words**. The abstract must be informative and explain the background, aims, methods, results & conclusion in a **SINGLE PARA. Abbreviations must be mentioned in full.**
6. **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 stop at the end. All words of the keywords, including the first one should be in small letters, except special words e.g. name of the Countries, abbreviations.
7. **JEL CODE:** Provide the appropriate Journal of Economic Literature Classification System code (s). JEL codes are available at www.aeaweb.org/econlit/jelCodes.php, however, mentioning JEL Code is not mandatory.
8. **MANUSCRIPT:** Manuscript must be in **BRITISH ENGLISH** prepared on a standard A4 size **PORTRAIT SETTING PAPER. It should be free from any errors i.e. grammatical, spelling or punctuation. It must be thoroughly edited at your end.**
9. **HEADINGS:** All the headings must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.
10. **SUB-HEADINGS:** All the sub-headings must be bold-faced, aligned left and fully capitalised.
11. **MAIN TEXT:**

THE MAIN TEXT SHOULD FOLLOW THE FOLLOWING SEQUENCE:**INTRODUCTION****REVIEW OF LITERATURE****NEED/IMPORTANCE OF THE STUDY****STATEMENT OF THE PROBLEM****OBJECTIVES****HYPOTHESIS (ES)****RESEARCH METHODOLOGY****RESULTS & DISCUSSION****FINDINGS****RECOMMENDATIONS/SUGGESTIONS****CONCLUSIONS****LIMITATIONS****SCOPE FOR FURTHER RESEARCH****REFERENCES****APPENDIX/ANNEXURE****The manuscript should preferably range from 2000 to 5000 WORDS.**

12. **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.**
13. **EQUATIONS/FORMULAE:** These should be consecutively numbered in parenthesis, horizontally centered with equation/formulae number placed at the right. The equation editor provided with standard versions of Microsoft Word should be utilised. If any other equation editor is utilised, author must confirm that these equations may be viewed and edited in versions of Microsoft Office that does not have the editor.
14. **ACRONYMS:** These should not be used in the abstract. The use of acronyms is elsewhere is acceptable. Acronyms should be defined on its first use in each section: Reserve Bank of India (RBI). Acronyms should be redefined on first use in subsequent sections.
15. **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. **Also check to make sure that everything that you are including in the reference section is duly cited in the paper.** 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 parenthesis.
 - **Headers, footers, endnotes and footnotes should not be used in the document.** However, **you can mention short notes to elucidate some specific point**, which may be placed in number orders after the references.

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, 19–23

UNPUBLISHED DISSERTATIONS

- 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 Gas Policy, Political Weekly, Viewed on January 01, 2012 <http://epw.in/user/viewabstract.jsp>

IMPACT OF BEEKEEPING ON INCOME AND EMPLOYMENT: A STUDY IN CENTRAL PROVINCE OF ZAMBIA

SYED ALI
ASSOCIATE PROFESSOR
SCHOOL OF SOCIAL SCIENCES
MULUNGUSHI UNIVERSITY
KABWE

ABSTRACT

The study was conducted to know the impact of beekeeping activity on income and employment in the Central Province of Zambia. The study aims to find out the type of technology used in honey production, cost of honey production, net income and income to investment ratio. Further, it aims to know the employment creation potential, employment to investment ratio and income to employment ratio in beekeeping activity. The study revealed that the effect of beekeeping activity on net income and employment was positive. The income to investment ratio was higher and the cost-output ratio was lower. The employment to investment ratio and the income to employment ratio were higher. The study found several challenges to beekeeping activity. These include lack of appropriate beekeeping skills, financial and infrastructure constraints. The study suggested for training the beekeeping farmers in using modern techniques of honey production and its marketing. The study also suggested that the Government should declare the minimum price of honey and bee wax and the relevant Government Agency should purchase honey from the beekeeping farmers.

KEYWORDS

beekeeping skills, net income, employment, cost-output ratio, financial constraints.

INTRODUCTION

The aim of Revised Sixth National Development Plan (2013-16) in Zambia is to achieve the objectives of Vision 2030, i.e., prosperous middle-income country. The Plan focuses on public capital investments that have a bias to rural development and job creation so as to achieve inclusive growth (Lusaka times, 2014).

Zambia has potential to earn over US\$ 12 million from in excess of 10,000 metric tons of honey exports annually but, need to increase investment in research and technology. The honey sector in Zambia has not been fully developed and is faced with a number of challenges such as limited access to markets and modern technology and limited investment in research and development (Sichinga, 2014). With the export and domestic market potentials for the product, beekeeping is likely to contribute to poverty reduction and develop the rural communities in the country (Ellis, 2014).

Beekeeping work is having one main object, namely to bring more cash in to the pockets of the people living in rural areas in order to enable them to improve their standards of living and hence help to stimulate the whole rural economy (Holmes, 1964). Beekeeping has potential to improve economic, social and health status of rural people if theoretical and practical training will be well conducted (Kumar, et.al., 2010). Beekeeping is one of the best practices that have been recognized to improve livelihood of poor farming communities without much investment cost (Baptist and Punduhewa, 1983). Zambia has thousands of hectares of Brachystegia wood lands, which provide an excellent source of nectar for bees, so that in most seasons bees can be depended upon to give a surplus of honey (Mickels-Kokwe, 2006).

Zambia is a traditional beekeeping country. It has immense potential to increase production. Presently, the national domestic demand alone is between 100-150 tonnes per annum, which has never been met. It is therefore imperative that the beekeeping industry be developed to levels where the domestic demand is met and surplus produced for export. The domestic demand for bee wax is large though most wax is exported, thus serving as an important source of foreign exchange for the nation (ZFAP, 1997).

The main markets for bee products continue to be United Kingdom (55%), Germany (35%), and South Africa (5%). Other markets (5%) have been Botswana, Libya, Tanzania and Zimbabwe. Honey and bee wax products have great market potential in Canada, Middle East, Japan and U.S (SNV, 2010).

Despite the conducive environment for beekeeping in Zambia to provide employment opportunities, reduce poverty levels and to earn foreign exchange, the sector is facing a number of problems, such as, poor statistics on the size and structure of the sector; lack of policies and a regulatory frame work to guide stakeholders on forest resource use, management of bees and handling of bee products; lack of national honey standards, lack of competition amongst input providers and traders; poor infrastructure and transport facilities; lack of collaboration between stakeholders and lack of market information and entrepreneur skills (Husselman, 2008).

IMPORTANCE OF THE STUDY

Employment creation and income generation are essential for poverty eradication. Zambia is a capital poor country. There is need to develop those activities which require less capital but create more employment and income. Beekeeping activity needs less capital but has the capacity to create more employment and generate more income for poverty reduction in rural areas. But the bee keeping sector in Zambia is facing many challenges relating to infrastructure, investment, technology, marketing, finance, etc. This study is important in finding out the potential of beekeeping activity in creating employment and generating income in the Kapiri Mposhi district of Central Province in Zambia and suggests policy measures. This study fills the gap in the existing literature on the potential of beekeeping activity in employment creation and income generation in the rural areas.

OBJECTIVES

The specific objectives of this study are to:

1. To know the socio-economic conditions of the beekeepers.
2. Find out the type of plants/cultivated crops which can offer fodder to honey bees.
3. Investigate the type of technology used in honey production.
4. Assess the sources of cost of honey production.
5. Find out the sources of revenue, net income and income to investment ratio.
6. Research the employment creation potential, employment to investment ratio and income to employment ratio in beekeeping activity.
7. Examine the sources of credit for beekeeping activity.

METHODOLOGY

This study used multi-stage random sampling technique for selecting the sample. In the first stage Central Province was selected. In the second stage Kapiri Mposhi district was selected. There are six agricultural blocks in Kapiri Mposhi district. They are: Mulungushi, Changondo, Chipepo, Louchu, Lukanga and Nkole. In the third stage, out of these six blocks, Mulungushi Block was selected for this study due to higher number of bee keepers (about 40%). The Mulungushi Block consists of six agricultural camps. They are: Imansa, Kakulu, Luanshimba, Lukanda, Kaunga and Kambosha. In the fourth stage, out of these six camps, two camps, namely, Lukanda and Luanshimba, were selected due to higher number of bee keepers. In the fifth stage, a total of 128 bee keeping

households were selected- 82 from Lukanda and 46 from Luanshimba. The required data were collected through questionnaire and interview with the respondents. The information was collected in February/March 2015 for the recent bee keeping season, i.e., September to December, 2014. Estimation of the factors influencing net income and employment involved the use of ordinary least square regression techniques.

The traditional technology includes fixed comb-hives and the modern technology used was movable frame hives, top bar hives, smokers and protective cloth in honey production. The sources of cost of production of honey were technology cost, imputed value of family labor, cost of hired labor, cost of empty containers and transport. The source of revenue includes the value of quantity of honey and beeswax sold. To measure income to investment ratio, the net income was divided by the total cost. To calculate employment to investment ratio, number of man-days of employment created was divided by the cost of production. Income to employment ratio was measured by dividing the net income with the number of man-days of employment created. The sources of credit for beekeeping activity were taken as banks, micro finance institutions, co-operatives, relatives and friends.

MODEL SPECIFICATION AND ESTIMATION

Estimation of the factors influencing net income of the bee farmers involved the use of ordinary least square regression techniques and specified by equations:

$$NY = \beta_0 + \beta_1 BE + \beta_2 T + \beta_3 CT + \beta_4 HL + \beta_5 FL + \mu$$

Where:

NY= Net Income

BE= Beekeeping Experience (years)

T= Training in beekeeping (No. of days)

CT= Cost of Technology (in Kwacha)

HL= Cost of Hired Labor (in Kwacha)

FL= Cost of Family Labor (imputed value in Kwacha)

β_0 is a constant

β_1 to β_5 = Regression parameters that were estimated

μ = Error term associated with data collection which was assumed to be normally distributed with zero mean and constant variance.

Estimation of the factors influencing employment involved the use of ordinary least square regression techniques and specified by equations:

$$Emp = \alpha_0 + \alpha_1 T + \alpha_2 I + \alpha_3 C + \alpha_4 Tg + \alpha_5 BE + \mu$$

Where:

Emp= Employment (in man days)

T= Value of technology used (in Kwacha)

I= Value of investment (in Kwacha)

C= Value of credit (in Kwacha)

Tg= Training in beekeeping (No. of days)

BE= Beekeeping experience (in years)

μ = Error term

DATA ANALYSIS AND DISCUSSION

The following results showed that when all the independent variables were zero, the income level was 329.8894 Kwacha. The income increases by 15.40401 Kwacha for an additional year of experience in beekeeping. The income increased by 21.25744 Kwacha for one additional day of training in beekeeping. When all the other independent variables are constant, the income reduced by 5.76671 Kwacha for an additional kwacha in technology cost. The income increased by 0.602546 Kwacha for one additional kwacha in hired labor cost but it increased by 2.994260 Kwacha for an increase in family labor cost by one kwacha. The family labor is significant in explaining the model.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	329.8894	112.8849	2.922353	0.0042
EXPERIENCE	15.40401	11.12775	1.384287	0.1689
TRAINING	21.25744	35.26279	0.602829	0.5478
TECHNOLOGY	-5.766718	5.800598	-0.994159	0.3222
HIRED	0.602546	0.477716	1.261305	0.2097
FAMILY	2.994260	0.580063	5.161954	0.0000
R-squared	0.482592	Mean dependent var	661.7177	
Adjusted R-squared	0.460668	S.D. dependent var	506.3556	
S.E. of regression	371.8637	Akaike info criterion	14.72211	
Sum squared resid	16317347	Schwarz criterion	14.85857	
Log likelihood	-906.7708	F-statistic	22.01197	
Durbin-Watson stat	1.429433	Prob(F-statistic)	0.000000	

The following results showed that when all the independent variables are zero, the level of employment was 93.58010 days of work. Employment increased by 0.453627 days for one additional kwacha increase in investment. The impact of loan on employment was negative. The employment reduced by 0.028188 man days for an increase in loan by one kwacha. The implication was that if more loan was available the employment opportunities would have increased. The employment increased by 3.165543 man days for an additional day of training and it was increased by 3.433432 man days for an additional year of experience in beekeeping. Thus, investment, credit and experience were significant to the model.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	93.58010	9.752642	9.595358	0.0000
TECHNOLOGY	0.453627	0.484721	0.935851	0.3513
INVESTMENT	0.170424	0.022832	7.464224	0.0000
CREDIT	-0.028188	0.010422	-2.704717	0.0078
TRAINING	3.165543	3.051500	1.037373	0.3017
EXPERIENCE	3.433432	0.974293	3.524026	0.0006
R-squared	0.471225	Mean dependent var	148.1935	
Adjusted R-squared	0.448819	S.D. dependent var	43.39864	
S.E. of regression	32.21982	Akaike info criterion	9.830218	
Sum squared resid	122497.8	Schwarz criterion	9.966683	
Log likelihood	-603.4735	F-statistic	21.03147	
Durbin-Watson stat	1.591085	Prob(F-statistic)	0.000000	

SOCIO-ECONOMIC CONDITIONS OF BEEKEEPERS

Table (1) shows the socio-economic conditions of beekeepers.

TABLE 1: SOCIO-ECONOMIC CONDITIONS OF BEEKEEPERS

Distribution	Value	Percentage
Mean age of beekeepers (years)	43.4	-
Gender:		
(a) Male	106	82.81
(b) Female	22	17.19
(c) Total	128	100.00
Marital Status:		
(a) Married	119	92.96
(b) Un-married	04	3.12
(c) Divorced	02	1.56
(d) Widow	03	2.36
(e) Total	128	100.00
Main Occupation:		
(a) Agriculture	125	97.65
(b) Beekeeping	03	2.35
(c) Total	128	100.00
Subsidiary Occupation:		
(a) Agriculture	03	2.35
(b) Beekeeping	125	97.65
(c) Total	128	100.00
Average Land ownership (ha)	13	-
Level of Education		
(a) Illiterate	20	15.62
(b) Primary	46	35.93
(c) Secondary	52	40.62
(d) Tertiary	10	7.83
(e) Total	128	100.00
Training in Beekeeping (days)	1.52	-
Experience in Beekeeping (years)	5.58	-

Source: Primary data

The total number of beekeepers was 128 and their mean age was 43.4 years. The age distribution of the beekeepers shows that 3.12 percent were between 15-24 years, 21.87 percent between 25-35 years; 58.6 percent between 36-60 years and 16.41 percent above 60 years. 82.81 percent were men and only 17.19 percent were female. This implies that majority of beekeepers were above middle age and beekeeping is a male dominated sector. These findings were similar to Ajao and Oladimeji (2013); Babatude et. al (2007); Ebojet et.al., (2008) Chale et.al., (2013); and SNV (2010). 92.96 percent were married, 3.12 percent were un-married, 1.56 percent were divorced and 2.36 percent were widows. The main occupation of the beekeepers was agriculture (97.65%). They were taking beekeeping activity as subsidiary occupation. The average land ownership of the beekeepers was 13 ha. It is interesting to know that majority of beekeepers studied up to secondary level (40.62%). The mean days of training in beekeeping were 1.52 and experience in beekeeping activity was 5.58 years.

TYPE OF PLANTS/CULTIVATED CROPS WHICH CAN OFFER FODDER TO HONEY BEES

Table (2) shows the type of plants/cultivated crops of Beekeepers, which can offer fodder to honey bees.

TABLE 2: TYPES OF PLANTS/CULTIVATED CROPS OF BEEKEEPERS, WHICH CAN OFFER FODDER TO HONEY BEES

Details of Plants/Cultivated Crops	Number of Beekeepers	Percentage
1. Maize	121	94.53
2. Sunflower	92	71.87
3. Tomato	120	93.75
4. Banana	114	89.10
5. Coffee	0	0
6. Mango	127	99.25

Source: Primary data

The above table (2) shows that 94.53 percent beekeepers were having access to maize, 71.87 percent to sunflower, 93.75 percent to tomatoes and 99.25 percent to mango trees for offering fodder to honey bees.

TECHNOLOGY USED IN HONEY PRODUCTION

Table (3) shows the technology used in Bee production.

TABLE 3: TECHNOLOGY USED IN BEE PRODUCTION

Details of Technology	No. of Bee keepers	Percentage
1. Traditional (Fixed Comb-hives)	89	69.53
2. Modern (Movable Frame hives, Top bar hives, Smokers and Protective Cloth)	03	2.35
3. Both	36	28.12
4. Total	128	100

Source: Primary data

The traditional technology (fixed comb-hives) was used by 69.53 percent beekeepers and the modern technology was used by only 2.35 percent beekeepers. Both traditional and modern technology was used by 28.12 percent beekeepers for producing honey.

COST OF PRODUCTION OF HONEY

Table (4) shows the cost of production of honey.

TABLE 4: COST OF PRODUCTION OF HONEY

Details of cost of production	Amount (Kwacha)	Percentage
1. Technology Cost	12.81	7.27
2. Family Labor (Imputed)	87.50	49.65
3. Hired Labor	31.32	17.78
4. Other Cost (empty containers and transportation)	44.57	25.30
5. Total Cost	176.20	100.00
6. Cost per litre	4.90	-

Source: Primary data

The total cost of producing 35.94 litres of honey was K. 176.20. The cost per litre production of honey was K. 4.90 only. Half of the total cost (49.65%) was due to family labor. The hired labor cost was only 17.78 percent, as most of the work was done by the family labor. The technology cost was the lowest because in Lukanda Camp area all the farmers were using traditional technology, i.e., fixed comb-hives and in Luanshimba Camp area the beekeepers were supplied freely, both types of techniques, by a Non-government Organisation. Hence the technology cost was zero in this camp area. The other cost includes purchase of empty containers and transportation of honey to the road side in Lukanda, as the road is far from the village.

SOURCES OF REVENUE, NET INCOME AND NET INCOME TO INVESTMENT RATIO

Table (5) shows the sources of revenue, net income and income to investment ratio of the beekeepers.

TABLE 5: SOURCES OF REVENUE, NET INCOME AND INCOME TO INVESTMENT RATIO OF THE BEEKEEPERS

Source	Quantity Sold in Litres	Price per litre (Kwacha)	Revenue in Kwacha	Net Income in Kwacha	Net Income per Litre	Net income to Investment Ratio	Cost-Output Ratio
Honey	35.94	22.76	817.99	641.79	17.86	3.64	0.20
Beewax	-	-	-	-	-	-	-
Total	35.94	22.76	817.99	641.79	17.86	3.64	0.20

Source: Primary data

The total revenue from the sales of honey was K 817.99. The beekeepers are not benefited from bee wax. This result was consistent with SNV (2010) which pointed out that beewax offers opportunities as an export by product whose potential remains unexploited and the development of beewax and other by products' markets would significantly increase the economic benefits from the sector. All the beekeepers sold honey in the village and road side only. They were unable to sell in the towns due to transportation problems. This finding is synonymous with the study by CIFOR (2008). The average net income of the beekeepers was K 641.79 and the net income per litre sale of honey was K 17.86 (cost per litre being K. 4.90). The net income to investment ratio was K 3.64. It means increase in cost of production by one kwacha leads to increase in net income by K. 3.64. The cost –output ratio was K 0.20, which means increase in cost of production by one kwacha leads to increase in output by K. 0.20.

EMPLOYMENT CREATION

Table (6) shows employment creation in beekeeping activity.

TABLE 6: EMPLOYMENT CREATION IN BEEKEEPING ACTIVITY

Details	Employment (Man-days)	Percentage	Employment to Investment Ratio	Income to Employment Ratio
Beekeepers	78.74	52.98		
Family labor	61.07	41.10		
Hired labor	8.80	5.92		
Total	148.61	100.00	0.84	4.32

Source: Primary data

The total employment created in beekeeping activity was 148.61 man-days. The percentage of employment creation for beekeepers was 78.74 man-days (52.98%), for family labor 61.07 man-days (41.10%) and for hired labor 8.80 man-days (5.92%) only. The employment to investment ratio was 0.84, which means one kwacha investment in beekeeping creates 0.84 man-days of employment. Income to employment ratio was 4.32, which means increase in employment by one man-day leads to increase in net income by K. 4.32.

SOURCES OF CREDIT TO BEEKEEPERS

Table (7) shows the sources of credit to beekeepers.

TABLE 7: SOURCES OF CREDIT TO BEEKEEPERS

Source	Amount	Percentage
Banks	-	-
Micro Finance	-	-
Co-operatives	22.26	11.26
Relatives/Friends	175.35	88.74
Total	197.61	100

Source: Primary data

The sources of credit to the beekeepers were co-operatives and relatives/friends. The total credit from these sources was K 197.61. The credit from relatives/friends was k 175.35 (88.74%) and from co-operatives it was K 22.36 (11.26%). There was no role of banks and micro finance institutions in providing credit to the beekeepers. A similar result was observed by Ajao & Oladimeji (2013); Ebojei et.al. (2008); SNV (2010); ZHC (2010) and CIFOR (2008).

CHALLENGES OF BEEKEEPING ACTIVITY

Table (8) shows the challenges of beekeeping activity.

TABLE 8: CHALLENGES OF BEEKEEPING ACTIVITY

Details of Challenge	No. of Respondents	Percentage
Lack of beekeeping knowledge	53	41.40
Financial Constraints	127	99.21
Transportation problem	112	87.50
Total	128	100

Source: Primary data

Out of 128 respondents, 41.40 percent were lacking beekeeping knowledge, 99.21 percent were having financial constraints and 87.50 percent were having transportation problem to take honey to town/roadside for selling. These results were consistent with the study by CIFOR (2008) ; ZHC (2010) and SNV (2010).

CONCLUSIONS AND SUGGESTIONS

1. The Beekeepers' main occupation was agriculture and beekeeping activity was their subsidiary occupation. Beekeeping was a male dominating activity and the average age of beekeepers was above 40 years. Those who studied up to tertiary, secondary and primary level were 7.83 percent, 40.62 percent and 35.93 percent respectively. The illiterates were 15.62 percent. The mean number of days of training given to the beekeepers was only 1.52 and the average number of experience in beekeeping activity was 5.58 years.
There is need to encourage the un-employed youth to take up beekeeping occupation. There is need to sensitise this issue besides providing training facilities. Since there prevails gender inequality in this activity, the women should be trained and provided with modern techniques for producing honey and bee wax.
2. The beekeepers should be educated about the use of modern technology and financial assistance should be provided through banks and micro finance institutions. There is immediate need to form co-operative societies for production and marketing of honey.
3. The beekeepers should also sell bee wax for increasing their revenue. There is need to educate them on marketing of bee wax.
4. The cost of production of honey per litre was K 4.90 only, where as, the price per litre was K 22.76, even when they were paid less due to lack of regulatory framework cost guide and minimum price, thus the net profit per litre was K 17.86. The beekeeping activity has the capacity to reduce poverty in Zambia.
5. The effect of beekeeping activity on net income was positive. Since the income to investment ratio is higher (3.64:1) and the cost-output ratio is lower (0.20:1) beekeeping activity is most suitable for Zambian situation where there is shortage of capital.
6. The impact of beekeeping activity on employment creation was also positive, as it was a labor-intensive activity. The employment to investment ratio was higher, i.e., 0.84:1 and the income to employment ratio was also higher, i.e., 4.32:1. Hence, beekeeping sector of Zambian economy has the potential to absorb the un-employed persons and could reduce the un-employment problem.
7. Since lack of finance was the main challenge of the beekeeping sector, it is strongly suggested that the banks and micro finance institutions should provide credit to the beekeepers against their quantity of honey production as collateral on par with the "Loan a Cow" scheme being implemented by ZANACO Bank.
8. Government at all levels should endeavor to stimulate beekeepers to boost honey production by providing necessary infrastructure and enabling environment.
9. Since there is no fixation of minimum price of honey by the Government, the beekeepers are not getting reasonable price. Hence, the Government should declare the minimum price of honey and bee wax and should be purchased by the Government Agency, on par with the Food Reserve Agency which purchases maize from the farmers on the price fixed by the Government.

REFERENCES

1. Ajao, A.M & Oladimeji, Y.U (2013): Assessment of Contribution of Apiculture practices to Household income and poverty alleviation in Kwara State, Nigeria; International Journal of Science and Nature, Vol. 4 (4) 2013, pp.687-698.
2. Babatude, R.O; Olorunsanya; Omotosho, O.A and Alao, I.B.I (2007): Economics of Honey Production in Nigeria. Implications for Poverty Reduction and Rural Development, GAEP, 3 (2), PP. 23-29.
3. Baptist, B.A; and Punchihewa, R.K.W (1983): A Preliminary Analysis of the principal factors which will affect apiary honey production in Sri Lanka, in K.N. Mahrotra;
4. Chala, K., Taiye, T and Kebede, D (2013): Assessment of Honey Production and Marketing System in Gomma District, South Western Ethiopia, Green Journal of Business and Management Studies, 3 (3), pp. 99-100.
5. CIFOR 92008): "Bee Keeping in Zambia", Center for International Forestry Research (CIFOR) February 2008, No. 7, Lusaka, Zambia.
6. Ebojei, G.O; Alamu, J.F and Adeniji, O.B (2008) Assessment of the contributions of Beekeeping Extension Society to the Income of Bee farmers in Kudama State.
7. Ellis, Sue (2014): "Honey big Revenue earner", Daily Mail, No. 28, 2014, Online edition.
8. Holmes, W.D (1964): Bark-hive Beekeeping in Zambia, Forest Development Bulletin ZA; Revised by G.M. Zulu, 1970, Government printer, Lusaka, p.23.
9. Husselman, M (2008): "Beekeeping in Zambia", Center for International Forestry Research, February 2008; No. 7, CIFOR, Lusaka, Zambia.
10. Kumar, J; Sharma, S; Lal, R (2010): "Beekeeping: A lucrative Rural Enterprise", Science Tech Entrepreneur, March 2010, p.5
11. Lusaka Times (Oct 4, 2014):) Official Statement of the President of Zambia on the release of Revised Sixth National Development Plan, Lusaka, 3rd October, 2014).
12. M.G. Jotwani, T.P. Sriharan; B. Subramanyam, P.J. Rao, D.S. Bisht and M. Naim (eds): Second International Conference on Apiculture in Tropical climate, Indian Agricultural Research Institute, New Delhi, India, pp. 87-99.
13. Mickels-Kokwe, G (2006): Small scale woodland-based Enterprises with outstanding economic Potential- The case of honey in Zambia, Bogor, Indonesia, Center for International Forestry Research.
14. Sichinga, Robert (2014): "Honey big Revenue Earner", Daily Mail, Nov. 28, 2014, Online edition
15. SNV (2010): Enhancing the competitiveness of the Zambian Agriculture Industry: Honey Value Chain Development; SNV Netherlands Development Organisation, Capacity Development Services for Apiculture in Zambia.
16. ZFAP (1997): Challenges and opportunities for Development: Ministry of Environment and Natural Resources, Zambia Forestry Action Plan, GRZ, 1998.
17. ZHC (2010): Report on the Zambia Honey Sector, 2010, Lusaka, Zambia.

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, neither 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 are 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

