

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & 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., Google Scholar,

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

Index Copernicus Publishers Panel, Poland with IC Value of 5.09 (2012) & number of libraries all around the world.

Circulated all over the world & Google has verified that scholars of more than 5656 Cities in 191 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.	PERFORMANCE MANAGEMENT SYSTEM IN A POWER PSU: A STUDY OF T.H.D.C. INDIA LIMITED <i>SHANTANU KUMAR BISWAS, ADITYA GAUTAM & ASHUTOSH KUMAR ANAND</i>	1
2.	PEDAGOGICAL INNOVATIONS IN THE TEACHING LEARNING PROCESS <i>DR. AMARDEEP KAUR</i>	9
3.	CRITICAL SUCCESS FACTORS IN ERP IMPLEMENTATION: A REVIEW <i>SANGRAM SINGH, VIRAT REHANI & DR. J. K. DHAMI</i>	11
4.	EFFECT OF INTERNAL BRANDING FACTORS IN DEVELOPING ORGANIZATIONAL COMMITMENT WITH SPECIAL REFERENCE TO HOTEL INDUSTRY IN INDORE CITY <i>VARUN KUMAR, DR.SANJAY SHARMA & DR. A K SINGH</i>	15
5.	PROFITABILITY ANALYSIS OF HINDUSTAN PETROLEUM CORPORATION LIMITED <i>DR. C. K. BUTTAN & RAANA SHAHWAL</i>	21
6.	E-COMMERCE AND CONSUMER RIGHTS: A STUDY ON CONSUMER PERCEPTION WITH SPECIAL REFERENCE TO AHMEDABAD <i>NITA SOLANKI, DR. PARAMJEET SINGH & DR. MEHUL SHAH</i>	30
7.	RELATIONSHIP BETWEEN OBJECT ORIENTED DESIGN CONSTRUCTS AND DESIGN DEFECTS <i>PAWAN KUMAR CHAURASIA & R A KHAN</i>	35
8.	IMPORTANCE OF STUDENT SUPPORT SYSTEM IN PROFESSIONAL INSTITUTES: TRENDS AND CHALLENGES <i>ANURAG DILRAJ & DR. ASHOK JHAWAR</i>	39
9.	LIQUIDITY STRUCTURE OF WORKING CAPITAL – TESTING OF THE HYPOTHESIS DEVELOPED BY VAN HORNE <i>DR. PRADIP KUMAR DAS</i>	42
10.	RURAL CONSUMER SATISFACTION TOWARDS ONLINE SHOPPING <i>DR. N. BAGYALAKSHMI</i>	46
11.	TELEMEDICINE: RECENT ADVANCES IN INNOVATIVE HEALTHCARE <i>DR. PANKAJ KUMAR VARSHNEY & DR. MOHD FAISAL KHAN</i>	52
12.	IMPACT OF GLOBALIZATION ON INDIA <i>PAWAN SHARMA & DR. SHISH PAL HARDU</i>	56
13.	DEMONETIZATION IMPACT ON TEXTILE INDUSTRIES IN BHIWANDI, THANE <i>DR. RASHMI SONI & SHEBAZBANO</i>	58
14.	A STUDY ON STRESS MANAGEMENT AMONGST FEMALE BANK EMPLOYEES IN TAMIL NADU DURING DEMONETIZATION <i>DR. J. RAMOLA PREMALATHA & PRIYADARSHINI.SR</i>	62
15.	THE CONTENTS OF WOMEN EMPOWERMENT IN SOLAPITH CRAFT PRODUCT: A CASE STUDY OF DHUBRI DISTRICT <i>JAHIDUL ISLAM</i>	66
16.	CONSUMERS PERSPECTIVE TOWARDS SOLAR PANEL PRODUCTS <i>S. DEVI PRIYA & DR. N. RAJA</i>	68
17.	DETERMINANTS OF ENTREPRENEURIAL DECISION-MAKING AMONGST FINAL YEAR STUDENTS IN TERTIARY INSTITUTIONS: A QUALITATIVE STUDY <i>MARIJKE A. ADOBEA OKYIREH & REXFORD OWUSU OKYIREH</i>	74
18.	A STUDY OF BENEFITS OF GST OVER INDIRECT TAX SYSTEM USING KNOWLEDGE DISCOVERY PROCESS OF DATA MINING <i>SAVITA MOHURLE</i>	78
19.	FOREIGN DIRECT INVESTMENT POLICIES IN THE LIBERALIZED TELECOM SECTOR OF INDIA - A REVIEW <i>SAKSHI SHARMA</i>	81
20.	APPLYING A COMPREHENSIVE CREDIT RATING FRAMEWORK TO THE TRANSPORTATION AND LOGISTICS INDUSTRY IN INDIA <i>T. SAI HARISH KUMAR</i>	84
	REQUEST FOR FEEDBACK & DISCLAIMER	92

CHIEF PATRON**Prof. (Dr.) 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

FORMER CO-ORDINATOR**Dr. S. GARG**

Faculty, Shree Ram Institute of Business & Management, Urjani

ADVISOR**Prof. S. L. MAHANDRU**

Principal (Retd.), Maharaja Agrasen College, Jagadhri

EDITOR**Dr. R. K. SHARMA**

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

CO-EDITOR**Dr. BHAVET**

Faculty, Shree Ram Institute of Engineering & Technology, Urjani

EDITORIAL ADVISORY BOARD**Dr. CHRISTIAN EHIOBU CHE**

Professor of Global Business/Management, Larry L Luing School of Business, Berkeley College, USA

Dr. SIKANDER KUMAR

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

Dr. JOSÉ G. VARGAS-HERNÁNDEZ

Research Professor, University Center for Economic & Managerial Sciences, University of Guadalajara, Guadalajara, Mexico

Dr. RAJENDER GUPTA

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

Dr. D. S. CHAUBEY

Professor & Dean, Research & Studies, Uttaranchal University, Dehradun

Dr. TEGUH WIDODO

Dean, Faculty of Applied Science, Telkom University, Bandung Technoplex, Jl. Telekomunikasi, Indonesia

Dr. S. P. TIWARI

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

Dr. BOYINA RUPINI

Director, School of ITS, Indira Gandhi National Open University, New Delhi

Dr. KAUP MOHAMED

Dean & Managing Director, London American City College/ICBEST, United Arab Emirates

SUNIL KUMAR KARWASRA

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

Dr. MIKE AMUHAYA IRAVO

Principal, Jomo Kenyatta University of Agriculture & Tech., Westlands Campus, Nairobi-Kenya

Dr. M. S. SENAM RAJU

Professor, School of Management Studies, I.G.N.O.U., New Delhi

Dr. NEPOMUCENO TIU

Chief Librarian & Professor, Lyceum of the Philippines University, Laguna, Philippines

Dr. PARVEEN KUMAR

Professor, Department of Computer Science, NIMS University, Jaipur

Dr. ANA ŠTAMBUK

Head of Department of Statistics, Faculty of Economics, University of Rijeka, Rijeka, Croatia

Dr. H. R. SHARMA

Director, Chhatarpati Shivaji Institute of Technology, Durg, C.G.

Dr. CLIFFORD OBIYO OFURUM

Professor of Accounting & Finance, Faculty of Management Sciences, University of Port Harcourt, Nigeria

Dr. SHIB SHANKAR ROY

Professor, Department of Marketing, University of Rajshahi, Rajshahi, Bangladesh

Dr. MANOHAR LAL

Director & Chairman, School of Information & Computer Sciences, I.G.N.O.U., New Delhi

Dr. SRINIVAS MADISHETTI

Professor, School of Business, Mzumbe University, Tanzania

Dr. ANIL K. SAINI

Professor, Guru Gobind Singh Indraprastha University, Delhi

Dr. R. K. CHOUDHARY

Director, Asia Pacific Institute of Information Technology, Panipat

Dr. VIJAYPAL SINGH DHAKA

Dean (Academics), Rajasthan Institute of Engineering & Technology, Jaipur

Dr. NAWAB ALI KHAN

Professor & Dean, Faculty of Commerce, Aligarh Muslim University, Aligarh, U.P.

Dr. EGWAKHE A. JOHNSON

Professor & Director, Babcock Centre for Executive Development, Babcock University, Nigeria

Dr. ASHWANI KUSH

Head, Computer Science, University College, Kurukshetra University, Kurukshetra

Dr. ABHAY BANSAL

Head, Department of Information Technology, Amity School of Engg. & Tech., Amity University, Noida

Dr. BHARAT BHUSHAN

Head, Department of Computer Science & Applications, Guru Nanak Khalsa College, Yamunanagar

MUDENDA COLLINS

Head, Operations & Supply Chain, School of Business, The Copperbelt University, Zambia

Dr. JAYASHREE SHANTARAM PATIL (DAKE)

Faculty in Economics, KPB Hinduja College of Commerce, Mumbai

Dr. MURAT DARÇIN

Associate Dean, Gendarmerie and Coast Guard Academy, Ankara, Turkey

Dr. YOUNOS VAKIL ALROAIA

Head of International Center, DOS in Management, Semnan Branch, Islamic Azad University, Semnan, Iran

P. SARVAHARANA

Assistant Registrar, Indian Institute of Technology (IIT), Madras

SHASHI KHURANA

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

Dr. SEOW TA WEEA

Associate Professor, Universiti Tun Hussein Onn Malaysia, Parit Raja, Malaysia

Dr. OKAN VELI ŞAFAKLI

Associate Professor, European University of Lefke, Lefke, Cyprus

Dr. MOHINDER CHAND

Associate Professor, Kurukshetra University, Kurukshetra

Dr. BORIS MILOVIC

Associate Professor, Faculty of Sport, Union Nikola Tesla University, Belgrade, Serbia

Dr. IQBAL THONSE HAWALDAR

Associate Professor, College of Business Administration, Kingdom University, Bahrain

Dr. MOHENDER KUMAR GUPTA

Associate Professor, Government College, Hodal

Dr. ALEXANDER MOSESOV

Associate Professor, Kazakh-British Technical University (KBTU), Almaty, Kazakhstan

Dr. MOHAMMAD TALHA

Associate Professor, Department of Accounting & MIS, College of Industrial Management, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

Dr. ASHOK KUMAR CHAUHAN

Reader, Department of Economics, Kurukshetra University, Kurukshetra

Dr. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

WILLIAM NKOMO

Asst. Head of the Department, Faculty of Computing, Botho University, Francistown, Botswana

YU-BING WANG

Faculty, department of Marketing, Feng Chia University, Taichung, Taiwan

Dr. SHIVAKUMAR DEENE

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

Dr. MELAKE TEWOLDE TECLEGHIOGIS

Faculty, College of Business & Economics, Department of Economics, Asmara, Eritrea

Dr. BHAVET

Faculty, Shree Ram Institute of Engineering & Technology, Urjani

Dr. THAMPOE MANAGALESWARAN

Faculty, Vavuniya Campus, University of Jaffna, Sri Lanka

Dr. ASHISH CHOPRA

Faculty, Department of Computer Applications, National Institute of Technology, Kurukshetra

SURAJ GAUDEL

BBA Program Coordinator, LA GRANDEE International College, Simalchaur - 8, Pokhara, Nepal

Dr. SAMBHAVNA

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

Dr. LALIT KUMAR

Faculty, Haryana Institute of Public Administration, Gurugram

FORMER TECHNICAL ADVISOR**AMITA****FINANCIAL ADVISORS****DICKEN 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 the 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 titled ' _____ ' for likely publication in one of your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published anywhere in any language fully or partly, nor it is 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 inclusion of their 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/Post* :

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 :

* i.e. Alumnus (Male Alumni), Alumna (Female Alumni), Student, Research Scholar (M. Phil), Research Scholar (Ph. D.), JRF, Research Assistant, Assistant Lecturer, Lecturer, Senior Lecturer, Junior Assistant Professor, Assistant Professor, Senior Assistant Professor, Co-ordinator, Reader, Associate Professor, Professor, Head, Vice-Principal, Dy. Director, Principal, Director, Dean, President, Vice Chancellor, Industry Designation etc. **The qualification of author is not acceptable for the purpose.**

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 the 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) Only the **Abstract 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 the manuscript, within two days of its 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 on 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 typed in **bold letters, 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 italic printing**, ranging between **150 to 300 words**. The abstract must be informative and elucidating 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 etc.
 7. **JEL CODE:** Provide the appropriate Journal of Economic Literature Classification System code (s). JEL codes are available at www.aea-web.org/econlit/jelCodes.php. However, mentioning of 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 be in 2000 to 5000 WORDS, But the limits can vary depending on the nature of the manuscript.**

12. **FIGURES & TABLES:** These should be simple, crystal **CLEAR, centered, separately numbered** & self-explained, and the **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, left aligned with equation/formulae number placed at the right. The equation editor provided with standard versions of Microsoft Word may 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 e.g. 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 may follow Harvard Style of Referencing. **Also check to ensure 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 italic printing. 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 before 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>

PERFORMANCE MANAGEMENT SYSTEM IN A POWER PSU: A STUDY OF T.H.D.C. INDIA LIMITED**SHANTANU KUMAR BISWAS****DIRECTOR (PERSONNEL)****TEHRI HYDRO DEVELOPMENT CORPORATION INDIA LIMITED****RISHIKESH****ADITYA GAUTAM****DIRECTOR****VIDYA SCHOOL OF BUSINESS****VIDYA KNOWLEDGE PARK****MEERUT****ASHUTOSH KUMAR ANAND****MANAGER****TEHRI HYDRO DEVELOPMENT CORPORATION INDIA LIMITED****RISHIKESH****ABSTRACT**

Of late due to globalization and tough competition, organizations around the world are facing challenges of complex governance in both internal and external environments. Performance is the real litmus test for survival in the marketplace. Therefore, managing and measuring performance has become a big task for an organization, whether private or public enterprise. There have been efforts to devise transparent and efficient Performance Measurement System and lot has been achieved in this area but still there are issues. Performance Management System has become a very important process from the perspective of business alignment. In India, particularly in Public Sector Undertakings, Performance Management System has undergone a transition and is now more robust, result oriented, transparent and participative. Tehri Hydro Development Corporation (THDC) India Limited is a Schedule "A" Mini Ratna CPSE under Ministry of Power, Government of India. THDC has adopted and implemented some of the good practices under Performance Management System in order to make the system more effective. The present paper is a study of gradual shift in the Performance Appraisal System, different processes involved in Performance Appraisal Cycle and how performance is being managed, measured and what inherent challenges of the system are in selected Power Sector with special reference to THDC India Limited.

KEYWORDS

T.H.D.C., performance, performance management system, power PSU, governance.

INTRODUCTION

In today's world the only asset to gain competitive advantage for an organization is its PEOPLE. Organizations with talented and motivated employees are likely to get ahead, even in the age of cutthroat competition. Every organization performs with the help of its resources as men, machine, materials and money. Except man other resources are non-living but human resource is an active and generating resource in the process of production. Man utilizes man as a resource and other resources too in order to produce goods and services. If effective human resource is not available, other resources remain useless and unproductive. Out of all the factors of production human resource is the most significant factor of production and plays a vital role in maintaining productivity and quality. In case, lack of attention to the other factors may result in reduce profitability to some extent but non-performing and unmanaged human resource is a question mark on the existence of an organization. That's how managing human resource keeps an organization moving.

Human Resource Management (HRM) is as old as are the production, business and trade. With the pace of time, utilization of human and managerial skills which, initially, were more at unconscious level, have moved to more concerted, organized and formulated strategies and their implementation covering various aspects of HRM. In many, the performance management is one of such aspects of HRM which has gained importance and popularity in the last seven decades but the term performance management gained popularity in early 1980s. The term got its importance from the times when the competitive pressures at marketplace started rising and the organizations felt the need of introducing a comprehensive performance management process into their system for improving the overall productivity and performance effectiveness. It got recognition when total quality management programmes received importance for achievement of higher standards and quality performance. Tools such as job design, leadership development, training and reward system received an equal impetus along with the traditional performance appraisal process in the new comprehensive and a much wider framework.

Undoubtedly, human factor is important factor in organizations. One of the main management strategies of the organizations is to invest in employees. Organizations are seeking to develop, motivate and increase the performance of their employees in a variety of human resources applications (Gungor, 2011). Thus, performance management should be an important step in the organization's HRM system and influences employee performance and then to organizational performance.

Therefore, devising Performance Management System for efficiently managing the performance of employees is important. If there is no measure to performance, there will be no sign of feedback and continuous improvement. When employees monitor and assess themselves on their performance, then no lines can be drawn to link employee's contribution with organizational goals. At the end, there will be a large gap, which remains unfilled thereby affecting the organization's growth. An effective system should encourage collaboration, teamwork, and communication. It's crucial for businesses to have systems in place to identify, recognize, reward, and retain their top performers to achieve sustainable growth.

Performance management system is the key factor determining whether an organization can manage its human resources and talent effectively. Performance management provides information on who should be trained and in what areas, which employees should be rewarded, and what types of skill are lacking at the organization or unit level.

Performance management also provides information on the types of employee who should be hired. When implemented well, performance management systems provide critical information. The significance of performance management systems applies to any organization that wants to improve its services, including the corporate sector. It is indicated that in the corporate sector, as global and national competitiveness puts strong pressure on performance excellence and cost effectiveness at all organizational levels, integrated human resource systems, including performance management, have become an indispensable tool.

NEED OF THE STUDY

The rationale of the study is to find out the journey of Performance Management System in THDC India Limited and in general reference to other central power sector CPSEs, how the system has evolved in these years into a scientific system of managing performance and emerged as a tool for identifying performers,

interlinking training needs, performance incentive to PMS and find out various stages and inherent challenges of the system. How in the last few decades the Performance Management System has been utilized in THDCIL and other Power CPSEs to manage performance, link the performance of individual employees with the overall objectives of organization, initiate culture of performance planning, team work, motivate performers and identify the areas where additional efforts is required.

OBJECTIVES OF THE STUDY

The objectives of the study are mentioned below:

1. To study the process of performance management system followed by THDCIL
2. To understand the Normalization process and applicability of Bell Curve Approach in Performance Management System.
3. To ascertain the effectiveness of Performance Management System in THDCIL.

PMS IN PSUs: REFERENCE TO THDCIL

Post-Independence for rapid industrial growth and economic self-reliance a lot of emphasis was made on growth of Public sector Enterprises. Over the years, the government's participation in industrial and commercial ventures has come to be regarded as sine qua non for rapid economic growth. Public Sector Enterprises have been accepted as effective instrument of socio-economic transformation and economic development. Since independence, the growth of public enterprises, both at the central and State level has been phenomenal.

In 1965, Bureau of Public Enterprises was set up as a centralized co-coordinating unit, which would also appraise the performance of these bodies. The department acts as nodal agency for all PSEs and assists in policy formulation pertaining to the role of PSEs in the economy. It lays down policy guidelines on performance improvement and evaluation, financial accounting, personnel management and related areas.

In the government sector, focus on performance is now widely recognized as a key instrument for improving the delivery of services and infrastructure to the people.

An ideal system of performance management links development goals, policies, priorities, plans, programmes, projects, budgets, action plans and performance towards achieving the desired objectives. The system involves performance policy, performance goals, performance indicators, performance measurement, performance monitoring, performance evaluation, performance review, performance-based placements, incentives and disincentive and evidence based policy-making.

The strategic objectives of a performance system are to:

- Create a performance culture and ethos across public service in terms of shared values, outcome, orientation and best practices.
- Promote accountability of employees and organizations in using resources and ensuring that implementation objectives are met.
- Guide capacity-building development.

In recent years the Performance Management System in PSUs has undergone tremendous change. The system which was a closed system in past and termed as Annual Confidential Reports has now been replaced with Performance Appraisal/Management System and newer concept of Balance Scorecard. The emphasis is now not only on measurement of performance but interlinking the performance of individual employee with objectives of organization, with advent of the concept of KRAs (Key Result Areas) the tasks to be accomplished are planned in mutual consultation and in advance. The KRAs are SMART and the system not only measures the performance but also contributes in identifying gaps and filling the gap by coaching and training. Department of Public Enterprises in recent years have come out with several guidelines on Performance Management System and linked PMS with incentives as well. The concept of Performance Related Pay, which was introduced in 2007 wage revision of PSUs, has been linked with Performance Management System. PSUs have been directed to devise a robust and transparent Performance Management System. Almost all the PSUs including THDCIL have introduced new Performance Management System, which is not only robust and transparent but also devised in such manner to help organization identify performers, identify performance gaps, plan training and learning initiatives, devise incentives, reward employees, skill-upgradation succession planning and several other important areas.

DPE vide issuing guidelines for 2007 Wage Revision not only emphasized for devising a robust and transparent Performance Management System but also it introduced a system of Bell Curve wherein employees are categorized and rated as Outstanding, Very good, Good and Poor in laid down percentages. The concept of Bell Curve has been discussed later. DPE also issued guidelines regarding communication of Performance Appraisal Rating to employees thereby removing confidentiality involved in the process earlier.

The major emphasis through Performance Management System in PSUs now is not only on measurement of performance but its effective management for creating total ownership, accountability and generating a culture of performance in Organization.

KEY ISSUES AND CHALLENGES FOR PUBLIC SECTOR IN PERFORMANCE MANAGEMENT

ISSUES AT INDIVIDUAL LEVEL

1. Issues of Transfer in tough geographical locations being in Hydro
2. Issues related to Motivation for PMS being linked to Financial Incentive
3. Issues of imposition of Bell Curve approach in Performance Appraisal System
4. Issues related to non- payment of Performance Related payment owing to DPE formulae

ISSUES AT ORGANIZATIONAL LEVEL

1. Maintain a skilled and competitive human Resource
2. Inculcate an atmosphere of Performance
3. Reward and Identify Performers and Empower them to take future positions
4. Implementation of Bell Curve

PROFILE OF THDC INDIA LIMITED

Tehri Hydro Development Corporation India Limited (THDCIL) is a Joint Venture of Government of India and Government of Uttar Pradesh. The Equity is shared in the ratio of 75:25 between Government of India and Government of Uttar Pradesh. The Company was incorporated in July 1988 to develop, operate & maintain the 2400 MW Tehri Hydro Power Complex and other hydro projects. The Company has an authorised share capital of INR 4000 cr. THDCIL is a Mini Ratna Category-I and Schedule 'A' CPSE.

Its greatest strength is highly skilled and committed workforce of 2000 employees. Every employee is given an equal opportunity to develop himself/herself and grow in his/her career. Continuous training and retraining, career planning, a positive work culture and participative style of management - all these have engendered development of a committed and motivated workforce setting new benchmarks in terms of productivity, quality and responsiveness.

PERFORMANCE MANAGEMENT SYSTEM IN THDCIL

The world is a global village today where boundaries have diminished and due to liberalization of economy worldwide including India there has been tremendous change in the business scenario. Utmost utilization and effective management of human resource in era of competition is crucial and one of the tools to manage and motivate employees today is performance Appraisal System that has now been transformed to Performance management System.

To be competitive and to even retain market-share in the local economy, companies have to look beyond Indian shores and offer products and services of global quality and prices. This requires benchmarking of practices, standards of performance and efficiency in line with the worldwide competition. The performance

management has importance wherein companies have to monitor their performance factors affecting them on a proactive and hands-on basis (Rao, A Srinivasa, 2007).

THDC India Limited is a Schedule "A" Mini Ratna Central Public Sector Undertaking under Ministry of Power. Erstwhile the name of the Company was Tehri Hydro Development Corporation. The company was earlier into Hydro power generation but in the past few years it has diversified into Thermal, Solar, Wind power as well. The company has a stable financial performance earning profits and is known for its best HR policies and practices and also bagged several awards for it including SCOPE Meritorious Award for Best HR Practices. In the past few years company has revisited and modified several HR policies to synchronize them with the trends of time and industry standard. It has formulated and implemented several new policies and issued several guidelines one such improvement is in the field of managing performance of employees through Performance Management System.

Earlier the system of Annual Confidential report was closed system where the report was prepared by senior in confidential manner. The concerned employee who was rated by his senior was not informed of his rating and thus he was not given chance to know and improve upon.

Public Sector Undertakings function in a different atmosphere where skill, talent and potential of employees are to be nurtured properly and efficiently to gain competitive advantage over peer companies and sustain. These PSUs are further governed by guidelines issued by different agencies of Government who issue orders from time to time. There has been emphasis from the Govt. to bring in a culture of performance, its effective measurement and management to gain competitive advantage and transparency. Therefore, the govt. has issued various guidelines with regard to devising robust and transparent Performance Management System. While issuing directives with regard to pay revision of CPSEs in the year 2007, Department of Public Enterprises issued an Office Memorandum in 2008 in this regard vide which not only guidelines with regard to Pay scales were issued but Government introduced the scheme of Variable pay/ Performance Related Pay and directed the CPSE to devise a robust and transparent Performance Management System. Therefore, for the first time performance of an employee was linked to payment of incentive. Department of Public Enterprises also introduced a method of "Bell Curve" one of the forced ranking method wherein direction with regard to rating employees was also given.

However, the new Performance Management System was introduced in THDCIL during the year 2006-2008. This new system of appraisal was a shift from the old system of annual appraisal method. The new Performance Appraisal System introduced in THDCIL started with setting of targets/key result areas (KRA) in consonance with the business objectives of the Organization. The system gradually modified and several improvements were made with introduction of Balance Score Card for executives of Sr. Manager and above.

The process of Performance Management at THDCIL starts with Performance Planning:

PERFORMANCE PLANNING: This is one of the most important aspects of the Performance Management System. The Reporting Officer has to convene a meeting of the Executives working under them and discuss the expectations i.e. the work to be done and the specific targets to be achieved during financial year taking into account the MOU targets as well as departmental targets. While drawing the KRAs it should be ensured that the targets are specific, measurable agreed upon and time bound. The targets are set at equally challenging levels across departments. The task has to be differentiated based on their significance, complexity of the task, special skills and innovation required. Reference is made to MOU targets, Departmental targets/KRA directory for this purpose.

KRA DIRECTORY: A comprehensive KRA directory has been prepared in THDCIL. The KRA directory lists the result areas of the heads of the department from which the KRAs of the subordinates of the department flows. The KRAs of the subordinates cannot be different from that of the superiors of his department, which provides for downward flow of responsibility. Weightage are primarily assigned to each KRA depending upon the priority and importance of such KRA. The Reporting Officer should prioritize the task based upon SMART. Complexity of task, special skills, and innovation should be paramount importance.

TABLE 1.1: TASK BASED ON SMART

	Unacceptable	Acceptable
Specific	'try to improve efficiencies'	'increase efficiencies by 10%.
Measurable	'Improve customer satisfaction'	'improve customer satisfaction so that service complaints do not exceed one per week on average'
Agreed	Reporting officers should not dictate what the performance standard should be. Executive should be left to set their own targets.	Executives and reporting officers should collaborate and contribute to the planning of the performance standards.
Realistic	Performance standard those are unreasonable and unreachable. Performance standard those are set too low, diminishing the employee's motivation and removing the challenge of a job.	Performance standards should be consistent with the organizations corporate strategies. Performance standards should also be within the employee's skills and capabilities.
Time framed	A number of performance standards without any time frame or to be achieved all at once.	A time span for each task. The time frame must be realistic. A number of asks should be staggered through the period.

Balanced Score Card Based KRAs for (E6 To E7): This tool is being used for translating and deploying organizational strategy in performance. It provides a balanced view of an organization's performance strategy across the four perspectives - Financial, Customer, Process Improvement and Employee Learning and growth.

TABLE 1.2: BALANCED SCORE CARD BASED KRAs

<p>Financial perspective:</p> <ul style="list-style-type: none"> ➤ Takes into account the traditional way of valuing the business. ➤ Includes measures such as operating income, return on capital employed, economic value added, etc. 	<p>Customer Perspective:</p> <ul style="list-style-type: none"> ➤ Emphasizes on the increasing realization of the importance of customer focus and customer satisfaction in business. ➤ If customers are not satisfied, they will eventually find other suppliers that will meet their needs and in turn impact business.
<p>Process improvement:</p> <ul style="list-style-type: none"> ➤ This perspective allows the managers to know how well their business is running, and whether its products and services confirm to customer requirement. 	<p>Learning and growth:</p> <ul style="list-style-type: none"> ➤ This perspective includes employee training and organization's cultural attitudes related to both individual and organization's self-development.

*Balanced Scorecard was popularized by Robert Kaplan and David Norton in 1992

I. TARGETS BASED ON FINANCIAL PERSPECTIVE: The targets on financial perspective have two dimensions i.e. increase in revenue and reduction in cost. While all departments do not directly deal with increase in revenue, reduction in operating cost in terms of their departmental operating expenses is applicable to all departments. The KRAs which are quantifiable having financial implication such as saving in Cost or percentage utilization of budget or generation or project realization amount or any such financial aspects leading to savings/ revenue generation will fall under financial perspective. No other KRAs should be narrated under this perspective.

II. THE CUSTOMER PERSPECTIVE HAS TWO DIMENSIONS i.e. internal customers and external customers. All departments provide service to other departments thus departments receiving their service are their customers. OMS Departments has been assigned the work to carry out a survey on various service parameters with their customer department twice a year i.e. half yearly and annually before evaluation. Thereafter based on the formula devised by IE department final rating is conveyed to the concerned department.

III. TARGETS BASED ON PROCESS IMPROVEMENT PERSPECTIVE: This pertains to the targets to be worked out by the appraisee in consultation with the reporting officer for bringing about certain improvements in the work being carried out by them.

IV. TARGETS BASED ON EMPLOYEE LEARNING AND GROWTH PERSPECTIVE

This perspective has two parts as follows:

- i) pertaining to meeting the training requirement as per the company training policy and initiatives for creating a learning culture in the department and
- ii) Completion of annual appraisal of self and subordinates within the stipulated time.

The training imparted to the Sub-ordinates irrespective of being arranged by the department itself or through HRD department is to be narrated under the Employee Capability Perspective. This particular KRA is not applicable to those executives who are having no subordinates.

Midyear Review: Midyear review is an important process in which the appraisee can revisit the KRAs and goals in the light of reasons, which may be beyond the control of the appraisee. The review helps the Reporting Officer to review the progress of the agreed targets and provide early warnings of non-performance to the Appraisee improvement.

Annual Appraisal: The objective of annual appraisal is to discuss and arrive at real performance with respect to agreed targets. It is necessary that due discussions take place between Appraiser and reporting officer before Annual Assessment. It is necessary that Reporting Officer perform his role so that reviewing officer and Accepting Authority do not face any problem in objective assessment.

Appraisal of additional task/Self-assigned task: Under this column, special achievements of the Executives during the year are required to be recorded. Achievements like handling of emergency situations, process improvements, contributing articles, representing the corporation in competitions like Quiz, acquiring special competencies, acting as internal faculty for imparting training etc. should only form a part of this special achievements section. Reporting Officer can also assign specific task during the period under review and successful completion of the task can also form part of this section.

Competencies and Core Values: This section deals with assessment of functional/ technical or managerial competencies. There is Competency Assessment Rating scale on which the assessment is to be made.

For the executives at the level of E5 to E7 the concept of KRAs based on Balanced Score Card has been introduced. The executives are required to plan their performance keeping in view the spirit of MOU targets. There are certain functions which have KRAs directly linked to MOU and their targets shall be based on MOU targets. The targets are required to be measurable in terms of measurable quantity, measurable time or measurable level of service quality. The executives whose KRAs are not directly linked with the MOU Targets they have to frame up Departmental Targets in consultation with their Reporting officer.

While setting targets by the executives 4(four) quadrants viz. Financial perspective, Customer perspective, Process improvement perspective and Employee Learning Perspective are to be considered to bring a balanced approach in the working.

I. TARGETS BASED ON FINANCIAL PERSPECTIVE: The Targets on Financial Perspective have two dimensions i.e. increase in revenue and reduction in cost. While all departments do not directly deal with increase in revenue, reduction in operating cost in terms of their departmental operating expenses is applicable to all the departments.

II. TARGETS BASED ON CUSTOMER PERSPECTIVE: The customer perspective has two dimensions i.e. internal customers and external customers. All departments provide service to other departments thus departments receiving their service are their customers. Departments/ groups are required to carry out a survey on various service parameters with their customer department to arrive at their current satisfaction level.

The survey is carried out twice a year i.e. six monthly and annually before evaluation. The feedback shall be required from the "same peer group"/ customers during both the surveys. The concerned executives will develop a suitable feedback format for the purpose of survey in consultation with the HOD.

For Liaison Department, the feedback will be based from HOD/Internal Customers.

For HR, F&A Department the feedback will be based on survey from all the cross section of the employees.

III. TARGETS BASED ON PROCESS IMPROVEMENT PERSPECTIVE: This pertains to the targets to be worked out by the appraisee in consultation with the reporting officer for bringing about certain improvements in the work being carried out by them.

IV. TARGETS BASED ON EMPLOYEE LEARNING AND GROWTH PERSPECTIVE: This perspective has two parts i.e. i) pertaining to meeting the training requirement as per the company training policy and initiatives for creating a learning culture in the department and ii) completion of annual appraisal of self and subordinates within the stipulated time. The performance descriptor against these targets for 50%, 75% and 100% level of performance is also to be defined.

The Performance Appraisal report also has a section of Individual Training and Development needs where appraisee mentions the type of training and exposure required to enhance job knowledge and managerial skills.

NORMALIZATION

With the adoption of Pay Revision 2007 in THDCIL as per the direction of DPE all the executives of the Corporation are to be graded under Bell Curve Approach so that not more than 10% to 15% of the executives are graded as "Outstanding/Excellent" and 10% of the Executives should be graded as Below par for the purpose of distribution of PRP. These 10% executives will not be entitled for getting any PRP.

After the Final marks is given by the respected Accepting Authority and after the PMR disclosure process at each grade and PMR Appeal process is over the Normalization process starts. The Accepting Authorities at different levels are as under:

E2 to E5 Concerned General Manager of Higher Authority

E6 to E7 Concerned Directors or CVO

E8 to E9 CMD

The Performance score reflects the highest performance level within the cluster and ranking in accordance. Ranking is an important function, which is strictly adhered to facilitate in fitting each executive in Bell Curve. The finally approved scores are tabulated for fitting each executive in designated class i.e. Normalization Centers. Normalization process starts with the formation of Normalization Centres (NC) for different projects/units/departments. Preferably NCs are formed of each grade of executives if sufficient population is available. Otherwise more than one executives grades are clubbed in a particular NC. Subsequently, a three member committee comprising of representatives of Director(Tech.), Director(Personnel) and Director(Finance) is constituted.

Minimum population for applying Bell Curve in THDC has been considered at minimum 8. For less than 8 executives pertaining to more than one Accepting Authority in a particular grade are clubbed. Since every human being has unique tendency of assessment, it is likely observed conservative markings and liberal markings given by the Accepting Authorities. This is conspicuous in the case of E2 to E5 level executives where numbers of Accepting Authorities are too many and population is less than 8 specifically.

Normalization Committee takes care of this aberration by grouping the Accepting Authorities in such a manner that executives with liberal markings come in particular group(s) and executives with conservative markings come in other group and apply Bell Curve approach in the groups. Thus, liberal markings and conservative markings are brought on a common platform. All the graded executives pertaining to all projects/units/departments under different ratings are put together and sorted in descending order. Total executives falling under different rating groups are compared according to the Bell Curve Norms of the Corporation. If any adjustment is required, it is done to match the norm as far as possible. While doing so the following guidelines are also kept in mind by the committee members:

Everything being equal, criteria to be adopted in the process of normalization in the following order:

- i) Working at Operating Stations
- ii) Working at Corporate Office who are extending effective assistance to Operating Stations/Projects including design.
- iii) Working at Construction Projects
- iv) Working at Liaison Offices
- v) Generally ranking/ switching is made in the same discipline
- vi) General perception of performance of the Appraisee shall be considered.

As per the Bell Curve Guidelines not more than 10% to 15% of the executives are graded as "Outstanding/ Excellent" and 10% of the Executives should be graded as Below par for the purpose of distribution of PRP. Generally, a trend has been found PMRs are sent to Corporate Centre prior to Normalization do not meet the specified percentage criteria set as per Bell Curve and internal guidelines related to Bell Curve. The percentage of Outstanding, which should not be more than 10%, is generally found to be on the higher side similarly, PMRs, which should be rated as Very Good/Good/Poor, are also not in the specified percentage.

Normalization Centres are created to ensure:

1. Bell Curve.

2. Shall bring objectivity and rationale.
3. Proper identification of Performers in range in a curve.

Basis of formation of Normalisation Centres (NC)

1. Administrative control of the Units
2. Grade wise grouping
3. No. of Executives
4. Clubbing of different grades of executives if required
5. Applying Bell Curve criteria
6. Adequate representation of Executives in particular grade in units/depts.

After Normalization, it is ensured that the rated PMRs are as per the guidelines and specified percentage criteria in this regard. A pictorial representation is presented below:

FIGURE 1.1: PRE-NORMALIZATION

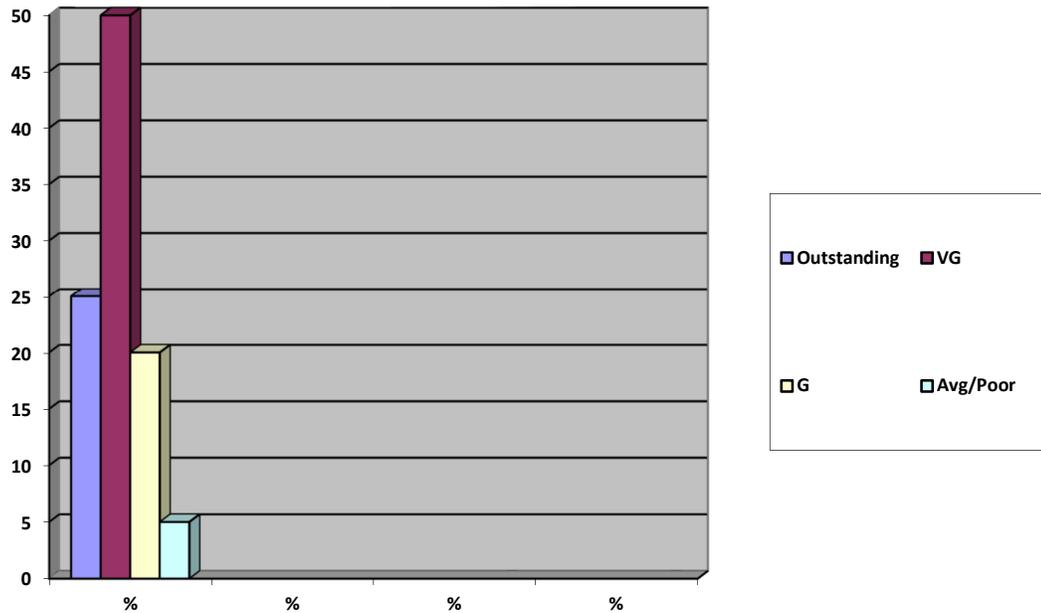
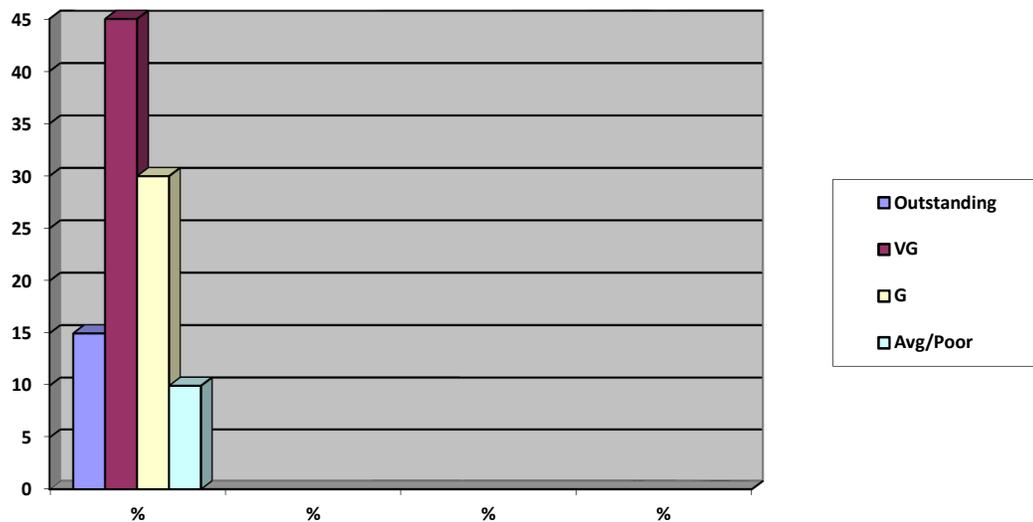


FIGURE-1.2: POST NORMALIZATION

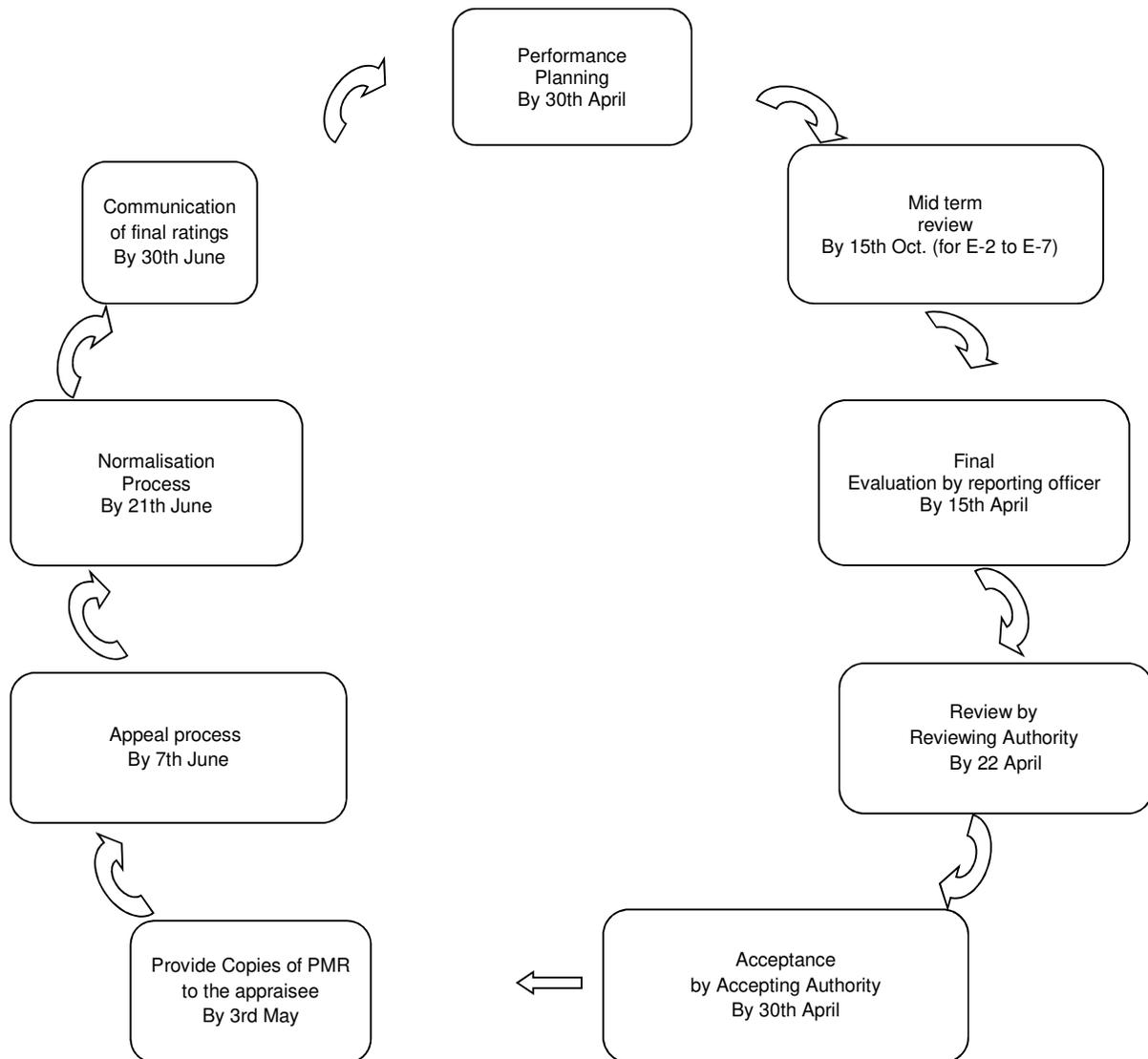


In the interest of improving fairness and transparency in Performance Appraisal Process the copies of PMRs are given to executives to make appeal against the assessment made by the Accepting Authority through the hierarchical channel.

COMMUNICATION OF SCORES AND APPEAL PROCEDURE

In the interest of improving fairness and transparency in performance appraisal process the executives will be provided copies of Performance Management Report (PMR) to the Appraisee and also to afford an opportunity to make appeal against the assessment made by the Accepting Authority through the hierarchical channel.

FIG. 1.3: PERFORMANCE MANAGEMENT SYSTEM PROCESS FLOW IN THDCIL



PERFORMANCE APPRAISAL FOR THE EXECUTIVES IN E-8 AND E-9 GRADE

Executives in the level of E-8 and E-9 grade use the format for their Performance Appraisal Report circulated by DPE.

The Performance Appraisal Report comprises of 06 sections.

Section- I Basic information of the officer reported upon.

Section –II Self appraisal of the officer reported upon.

1. Brief description of responsibilities.
2. Annual workplan deliverable and achievement.
3. Any exceptional contribution, e.g. successful completion of an extraordinarily challenging task or major systemic improvement (resulting in significant benefits to the Company and/or reduction in time and costs).
4. Constraints that hindered performance.
5. Specific areas of training that will add value.
6. Declaration regarding submission of property return, Medical check-up and annual work-plan for all the officers for whom the officer reported upon is the reporting officer.

Section–III Appraisal of the Reporting Authority relating to the accomplishment filled in

Section-IV and Personal Attributes and Functional Competencies.

Section- IV Review by the Reviewing Authority: Over all grades computed by summing up the weightage average in assessment of the achievements made and Personal Attributes and Functional Competencies.

Section-V Acceptance by the Accepting Authority.

Section-VI Review by the Accepting Authority in the light of the representation received from the officer reported upon.

Evaluation of KRAs is assigned on a scale of 1-5, in maximum of 2 decimal numbers, with 1.00 referring to the best grade and 5.00 to the lowest grade. Weightage to KRAs will be 75% and Personal Attributes & Functional Competencies will be 25%.

Appeal procedure is same as that for E-2 to E-7. Representation, if any, against the assessment of the achievements made against the targets and assessment of Personal Attributes and Functional Competencies is considered as per the terms mentioned for other executives of the corporation. Bell Curve approach and Normalization of scores for the purpose of payment of PRP is as per method adopted for the other Executives in the corporation.

LINKAGE OF PMS TO PAYMENT OF PERFORMANCE RELATED PAY (PRP)

After the Pay revision guidelines issued by Department of Public Enterprises in respect of 2nd Pay Revision of CPSEs and introduction of Performance Related Pay (PRP) as incentive and its being linked to Performance Management System every CPSE was directed to devise and implement a robust and transparent Performance Management System. THDCIL therefore further streamlined its Performance Management System to make it more transparent, participative, communicative and linked the same with payment of incentive in the form of PRP.

For payment of PRP the MOU rating of the Corporation and Individual rating of the employees derived from Performance Management System is used to distribute Performance Related pay on the formulae devised by Department of Public Enterprise.

Performance Related Pay (PRP), will be linked to:

- a) MOU rating of the Corporation.
- b) Profit of the Corporation.

The percentage ceiling of PRP for different existing grades and levels of employees as per DPE guidelines expressed as percentage of Basic Pay followed in THDCIL.

TABLE 1.3: PERCENTAGE CEILING OF PRP

GRADES/LEVELS	PRP (as Percentage of Basic Pay)
CMD	200
Directors	150
E8-E9	70
E6-E7	60
E4-E5	50
E2-E3	40
Supervisors	40

TABLE 1.4: METHODOLOGY FOR CALCULATION OF PRP AS PER DPE FORMULA

PRP from current profit (60% of PRP)	0.6	X	X	X	X	X	Total
		Annual Basic Pay	MOU Rating	Grade Incentive	Exec. Perform. Rating	Ratio of available amount to Required amount Maximum limit of this ratio shall be 1.	
PRP from Incremental profit (40% of PRP)	0.4	X	X	X	X	X	Total
		Annual Basic Pay	MOU Rating	Grade Incentive	Exec. Perform. Rating	Ratio of available amount to Required amount Maximum limit of this ratio shall be 1.	

PRP on Individual Performance: PRP on individual performance is payable to Executives/Supervisors in accordance with factors mentioned in table below

TABLE 1.5: PRP ON INDIVIDUAL PERFORMANCE

Individual Rating	Bell Curve Application (Percentage of total population)	Percentage of PRP payable as PRP on Individual Rating
Excellent	15%	100%
Very Good	45%	80%
Good	30%	60%
Average/ Not satisfactory	10%	0

The individual component disbursed against PRP comes out from the Performance Appraisal rating of the employees. Thus, the PMS of THDCIL has been linked to payment of incentives as well.

TRAINING NEEDS ANALYSIS THROUGH PMS

The Performance Management System is also used to get the training need assessment of employees. The Performance Appraisal Report contains a dedicated section of Training need, which is filled by concerned employee thereby reflecting the areas where the employee requires training. The Human Resource Department maintains the data of such filled training need sheets of Performance Appraisal Report, which is used to devise training calendar.

Performance Management System is thus serving in manifold ways in THDCIL, whether it is measuring, managing performance of employees, whether with proper feedback helping in improvement of performance of those lagging behind, identifying and rewarding the performers and paying them incentives, identifying the training needs of employees etc.

In order to adjudge the effectiveness and positive change that has emerged out of implementation of new Performance Management System a sample survey was conducted using questionnaire: The questionnaire contained variables and questions related to Objectivity of Performance Management System, formulation of Key result Area (KRA), Measurement of Performance through KRAs, Linkage of KRAs with organizational Targets, Role of reporting officer, reviewing officer, Accepting Authority, Communication of Performance Appraisal Scores to Individuals, Feedback, Counseling, and general perception of Employees about the Performance Management System. The pictorial presentation of the findings is presented below:

The Performance Management System in THDCIL is not only meant for objective assessment of performance but for further development and management of talent through recognizing the performers and awarding them. At the same time assist those who are lagging behind in performance by continuous feedback and helping them improving their performance.

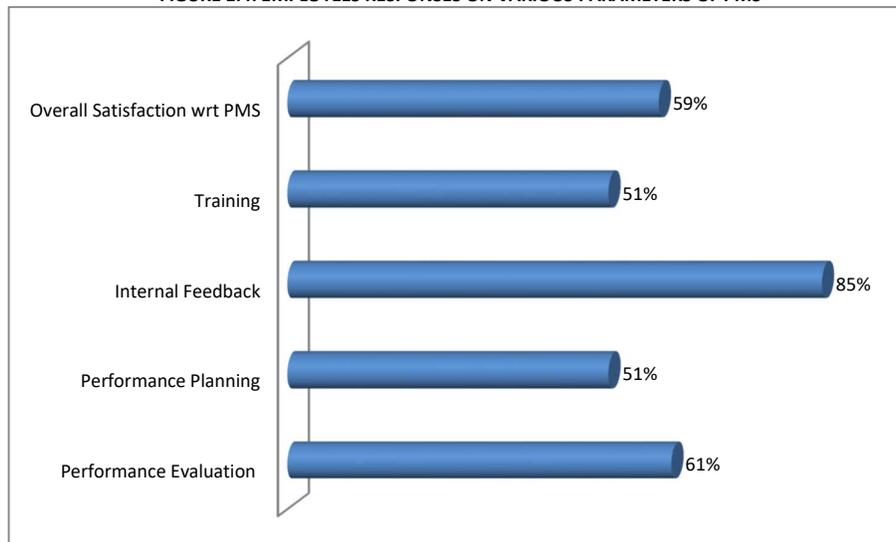
The PMS scores are also used in developing executives for future challenges and nominating them to different training programmes as well. The PMS is used in aligning KRAs with the business strategies and identifying superior performers in the organization by defining clear career paths and accountabilities. The rewards and recognitions are linked with the PMS. The new PMS has boosted the employee’s motivation and performance. The job satisfaction has also improved due to the introduction of a fair and transparent PMS and linking it with reward system.

Most organizations consider performance assessment processes as being an important employee intervention activity. Most of them have at least one performance assessment cycle that is mandatory for all employees.

However, despite the understood importance of the process, in actual practice, performance assessment or employee appraisal largely remains an annual ritual in most organizations – file opened at the beginning of every year and closed at the end of every year—a process that has more to do with annual increments and yearly promotions.

A questionnaire developed to measure certain parameters related to PMS yielded the results presented below:

FIGURE 1.4: EMPLOYEES RESPONSES ON VARIOUS PARAMETERS OF PMS



CONCLUSION

The results that questionnaire revealed that 61% of executive population is satisfied that PMS is serving the purpose performance evaluation, 51% each population is of the opinion that PMS is serving the purpose of performance planning, Internal feedback and 59% opines it is serving the purpose of capturing Training Need. Error in Bar Graph 59% to be replaced with 87%.

The alignment between individual performance and organizational goal is also of utmost importance by introducing an appropriate set of performance indicators. Measuring performance is useful only when it translates into action. Performance management tools by themselves do not create sustained high performance. It is important to create an environment conducive for effective and efficient performance with a system of rewards and punishment, besides building capacity at all levels of government to get results.

Coming to the conclusion, it should be mentioned that people have different skills, abilities and aptitudes and there is a great need to have suitable performance evaluation system to measure the relative merit of each employee in modern organization.

Employee performance evaluations traditionally vary by organization, and management may struggle with selecting the best evaluation methods for their own employees. That is why a comprehensive employee appraisal is often made up of several different methods of performance evaluation. Of course, managers can choose to use only one of them when judging an employee's performance, but multiple evaluation methods are able to get a broader picture of the areas where the employee needs improvement. Regular performance evaluations not only provide feedback to employees, but also provide employees with an opportunity to correct deficiencies.

In THDCIL the performance appraisal method has underwent a paradigm shift and is working well to achieve the objective with which it was implemented. However, with each passing day and several challenges that has been confronted in the past few years of implementation, continuous effort is being made to improve and streamline the system.

REFERENCES

1. Armstrong, M. (2001). *A handbook of human resource management practice* (8 ed.), Kogan Page Publishers.
2. Armstrong, M. and Baron, A. (1998). *Performance Management: The New Realities*, London: Institute of Personnel and Development.
3. Bhattacharya, D. (2011). *Performance Management Systems and Strategies*, India: Dorling Kindersley Pvt Ltd.
4. De Bruijn, H. (2002). Performance measurement in the public sector: strategies to cope with the risks of performance measurement. *International Journal of Public Sector Management*, 15(7), 578-594
5. Gautam, A., & Jain, S. (2015). Factors Essential for an Effective Performance Management System: A Literature Review. *Vidya International Journal of Management Research*. 3 (1-2). 47-72
6. Hans, de Bruijn. (2002). Performance measurement in the public sector: strategies to cope with the risks of performance measurement. *International Journal of Public Sector Management*, 15(7), 578 – 594.
7. Inyang, J. & Esu, B. (2009). A case of performance management in the public sector in Nigeria, *International Journal of Business and Management*, 4(4), 98-105
8. Jain, S., & Gautam, A. (2014). Performance Management System: A Strategic Tool for Human Resource Management. *Prabandhan Guru*. 5 (1&2). 28-31.
9. Jain, S., & Gautam, A. (2016). Comparison of Performance Management Systems in Public and Private Sector: A Study of Manufacturing Organizations. *International Journal of Management, IT and Engineering*. 6(5). 111-128.
10. Jain, S., & Gautam, A. (2016). Employees' perception towards Performance Management system: A Study of Selected PSUs of Uttarakhand. *International Journal in Management and Social Science*. 4(3).
11. Lee, M. and Son, B. (1998) 'The Effects of Appraisal Review Content on Employees Reaction and Performance', *International Journal of Human Resource Management*, Vol.1, pp.283.
12. Leena Toppo, Twinkle Prusty, *IOSR Journal of Business and Management* 3(5) (2012) 01-06.
13. Monappa, A. and Mirza S. Saiyadain, (1997): *Personnel Management*. Tata McGraw-Hill Publishing House Company Limited.
14. Performance Appraisal to Performance Management. *IOSR Journal of Business and Management*, 3 (5), 1
15. *Personnel Management* (2nd ed.). Tata McGraw-Hill Publishing Company Limited, New Dehli.
16. Rao. V.S.P., *Human Resource Management- Text & Cases*, 2nd edition, 2006, Excel books, New Delhi.
17. Singh, B.D. (2010). *Performance Management Systems: A Holistic Approach*, India Excel Books.

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Computer Application & 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 to 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

