INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT



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., Cabell's Directories of Publishing Opportunities, U.S.A., Google Scholar, Indian Citation Index (ICI), J-Gage, India [link of the same is duly available at Inflibnet 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 6575 Cities in 197 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/

<u>CONTENTS</u>

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	PATIENT SATISFACTION TOWARDS HEALTH CARE AND PHARMACEUTICAL CARE SERVICES: A STUDY OF SELECTED HOSPITALS IN GUNTUR CITY, ANDHRA PRADESH, INDIA Dr. D. LALITHA RANI & Dr. V. SRI VENKATESWARA RAO	1
2.	EARNING VOLATILITY SCENARIO PRE AND POST IMPLEMENTATION OF IFRS IN SELECTED INDIAN COMPANIES NEDA POURADELI ASHJAEI & Dr. N. NAGARAJA	6
3.	THE TESTING OF HOMOGENEITY & FINANCIAL DISTRESS: A STUDY ON MAHARATNA COMPANIES ANUSREE BOSE & SAYAN BASU	11
4.	A STUDY ON THE CAUSES OF THE DOWNFALL OF NBFCs IN INDIA: A CASE ANALYSIS OF DHFL & IL& FS PURNIMA SARKAR & RIT BISWAL	19
5.	AN INVESTIGATION OF THE FACTORS IMPACTING ON FINANCIAL PLANNING AND MANAGEMENT IN SECTION 21 SCHOOLS IN THE SAYIDI CIRCUIT, KWA-ZULU NATAL BHAVASHNI KANHAI & Dr. HERRISON MATSONGONI	24
	REQUEST FOR FEEDBACK & DISCLAIMER	31

<u>FOUNDER PATRON</u>

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 Former Faculty, Shree Ram Institute of Engineering & Technology, Urjani

<u>ADVISOR</u>

Prof. S. L. MAHANDRU Principal (Retd.), Maharaja Agrasen College, Jagadhri

EDITOR

Dr. NAWAB ALI KHAN

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

CO-EDITOR

Dr. G. BRINDHA

Professor & Head, Dr.M.G.R. Educational & Research Institute (Deemed to be University), Chennai

EDITORIAL ADVISORY BOARD

Dr. SIKANDER KUMAR

Vice Chancellor, Himachal Pradesh University, Shimla, Himachal Pradesh

Dr. A SAJEEVAN RAO

Professor & Director, Accurate Institute of Advanced Management, Greater Noida

Dr. CHRISTIAN EHIOBUCHE

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

Dr. JOSÉ G. VARGAS-HERNÁNDEZ

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

dalajara, Mexico

Dr. TEGUH WIDODO

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

Dr. M. S. SENAM RAJU

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

Dr. KAUP MOHAMED

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

Dr. D. S. CHAUBEY

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

Dr. ARAMIDE OLUFEMI KUNLE

Dean, Department of General Studies, The Polytechnic, Ibadan, Nigeria

Dr. SYED TABASSUM SULTANA

Principal, Matrusri Institute of Post Graduate Studies, Hyderabad

Dr. MIKE AMUHAYA IRAVO

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

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

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT

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

Dr. BOYINA RUPINI

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

Dr. FERIT ÖLÇER

Professor & Head of Division of Management & Organization, Department of Business Administration, Faculty of Economics & Business Administration Sciences, Mustafa Kemal University, Turkey

Dr. SANJIV MITTAL

Professor & Dean, University School of Management Studies, GGS Indraprastha University, Delhi

Dr. SHIB SHANKAR ROY

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

Dr. SRINIVAS MADISHETTI

Professor, School of Business, Mzumbe University, Tanzania

Dr. ABHAY BANSAL

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

Dr. KEVIN LOW LOCK TENG

Associate Professor, Deputy Dean, Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia

Dr. OKAN VELI ŞAFAKLI

Professor & Dean, European University of Lefke, Lefke, Cyprus

Dr. V. SELVAM

Associate Professor, SSL, VIT University, Vellore

Dr. BORIS MILOVIC

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

Dr. N. SUNDARAM

Associate Professor, VIT University, Vellore

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

RODRECK CHIRAU

Associate Professor, Botho University, Francistown, Botswana

Dr. PARDEEP AHLAWAT

Associate Professor, Institute of Management Studies & Research, Maharshi Dayanand University, Rohtak Dr. DEEPANJANA VARSHNEY

Associate Professor, Department of Business Administration, King Abdulaziz University, Saudi Arabia

Dr. BIEMBA MALITI

Associate Professor, School of Business, The Copperbelt University, Main Campus, Zambia

Dr. SHIKHA GUPTA

Associate Professor, Lingaya's Lalita Devi Institute of Management & Sciences, New Delhi

Dr. KIARASH JAHANPOUR

Dean of Technology Management Faculty, Farabi Institute of Higher Education, Karaj, Alborz, I.R. Iran

Dr. SAMBHAVNA

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

YU-BING WANG

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

Dr. TITUS AMODU UMORU

Professor, Kwara State University, Kwara State, Nigeria

Dr. SHIVAKUMAR DEENE

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

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

Dr. THAMPOE MANAGALESWARAN

Faculty, Vavuniya Campus, University of Jaffna, Sri Lanka

Dr. JASVEEN KAUR

Head of the Department/Chairperson, University Business School, Guru Nanak Dev University, Amritsar

SURAJ GAUDEL

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

Dr. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

Dr. BHAVET

Former Faculty, Shree Ram Institute of Engineering & Technology, Urjani

FORMER TECHNICAL ADVISOR

ΑΜΙΤΑ

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 <u>M.S. Word format</u> after preparing the same as per our **GUIDELINES FOR SUBMISSION**; at our email address i.e. <u>infoijrcm@gmail.com</u> 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. <u>The qualification of</u> <u>author is not acceptable for the purpose</u>.

- NOTES:
 - a) The whole manuscript has to be in **ONE MS WORD FILE** only, which will start from the covering letter, inside the manuscript. <u>**pdf.**</u> <u>**version**</u> 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 <u>BRITISH ENGLISH</u> prepared on a standard A4 size <u>PORTRAIT SETTING PAPER</u>. 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

THE TESTING OF HOMOGENEITY & FINANCIAL DISTRESS: A STUDY ON MAHARATNA COMPANIES

ANUSREE BOSE **RESEARCH SCHOLAR** UNIVERSITY OF BURDWAN PURBA BARDHAMAN

SAYAN BASU ASST. PROFESSOR **DEPARTMENT OF COMMERCE & BBA** SHREE AGRASAIN COLLEGE ΚΟΙ ΚΔΤΔ

ΔΒSTRΔCT

Public sector companies play a vital role for the economic growth of the nation. In the post liberalization period the alteration in the public sector polices changed the scenario from controlled economy to market economy. In this modern competitive era, with the increasing number of companies, sickness in industry also flowed by it, which becomes a major problem for nation's economy and growth. The present study mainly concerned to reveal the financial soundness of Maharatna companies during the period 2015-19 through the use of ratio analysis, composite ranking based on selected financial indicators and through the use of other statistical measures like- Kendall's Coefficient of Concordance & Altman Z score model.

KEYWORDS

maharatna companies, financial performance, ultimate financial ranking.

JEL CODES

G30, G33.

INTRODUCTION

In primary goal of financial management is to maximize the wealth of shareholders and for public companies it is maximization of stock price. Apart from this on the basis of the present scenario financial management also plays a crucial role in the management, survival and future growth of the companies. Before the independence of India, there were only a few public sector companies in the country this includes, Indian Railways, the Port Trusts, the Posts and Telegraphs, All India Radio and the Ordinance Factory however after the independence a great emphasis has given on the expansion of PSUs as public sectors were used as a tool for the self-reliant growth of the nation's economy. The Public Sector Enterprises in India are run by the Government under the Department of Public Enterprises of the Ministry of Heavy Industries and Public Enterprises. The government grants the status of Maharatna, Navratna and Miniratna to certain Central Public Sector Enterprises (CPSE) based upon the profit made by them. The Maharatna status gives more autonomy and authority to a company than the other categories such as Navratna or Miniratna. In the year 2009, the government of India decided to grant Maharatna status to certain CPSEs. Currently, there are eight Maharatna PSUs, including BPCL that was recently added to the list. Below is the complete list of companies/PSUs that fall under the Maharatna status: Bharat Heavy Electricals Limited (BHEL) 1.

- 2. Coal India Limited (CIL)
- Gas Authority of India Limited (GAIL) 3.
- 4. Indian Oil Corporation Limited (IOCL)
- National Thermal Power Corporation Limited (NTPC) 5.
- Oil and Natural Gas Corporation Limited (ONGC) 6.
- 7. Steel Authority of India Limited (SAIL)
- Bharat Petroleum Corporation Limited (BPCL) 8.
- Hindustan Petroleum Corporation Limited (HPCL) 9.
- 10. Power Grid Corporation of India Limited (PGCIL)

Liberalization of the economy in 1991 evolved a paradigmatic alternation in the policy of the Govt. of India relating to the public sector enterprises. The enterprises lost the monopoly assured by the government. This shift in public sector policy changed the scenario from controlled economy to market economy, full govt. ownership to disinvestment, unlimited life to threat of liquidation, employment generation to manpower rationalization, liberal budget support to withdrawal of support, departmental Board to independent Board and limited autonomy to enhanced autonomy. This study mainly focused to measure the financial soundness of the Maharatna companies in order to help the investors to better understand the financial positions of the company.

REVIEW OF LITERATURE

Batth et al. (2018) conducted this research to analyze the financial health of 7 Maharatna companies & 17 Nabaratna Companies through using the Altman Z score model. According to the result it can be observed that out of 24 companies, 11 companies belong to the safe zone, 2 are in grey zone and the rest 11 are belongs to the danger zone. In this study it can also be observed that despite of having good financial position the market capitalization values of those companies are low. Malla (2011) mainly focused on the revival and restructuring of the sick industries in this research paper. This study reveals that being very selective regarding rehabilitation the government is not willing to eject further resources in support of those units which are irretrievably sick rather government willing to take potentially viable units will for rehabilitation to restore them to health. Later Companies (Amendment) Bill, 2001, Sick Industrial Companies (Special Provisions) Repeal Bill, 2001, Narasimham Committee etc also focused on the matter of revival and restructuring of sick industry

Navulla et al. recited that with the increasing number of companies, sickness in industries also flowed by it which is easy to understand but difficult to control. This research paper mainly concerned with the facts to combat the industrial sickness problem in India through analyzing the types of sickness, reasons, adverse effect of sickness along with preventives measure which is provided by the Government in India. This paper also suggests that Banks, business people, government and other financial institution must be careful to deal with the concept of industrial sickness.

Sarlija er al. mainly concerned with the fabrication of three separate financial distress prediction models that will track the changes in a relative importance of financial ratios throughout three consecutive years (2006-09) on the basis of the financial data of 2000privately owned SMEs in Croatia through using the logistic regression. The findings of this study state that financial ratios are very much important to predict the financial distress during the economic downturn. Even it also helps to understand the behavior of SMEs in the period of pre-recession and during the time of recession.

Pal (2013) concentrated to evaluate the financial soundness of the public sector steel companies in India namely SAIL & RINL under liberalized era through the ratio analysis and applying the descriptive statistic over the financial data for a period of 20 years (1992-93 to 201-11). The outcomes of this study reveal that

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT

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

http://ijrcm.org.in/

though the performance of both the companies are good in some case and also poor from some other extent. Both the companies mainly have to focus on the inventory management and with this RINL also have to reduce the proportion of debt in its capital structure for better result.

OBJECTIVES OF THE STUDY

- 1. To gauge the financial soundness of Maharatna companies considering some selected indicators of its financial performance.
- 2. To inspect whether there is any uniformity among the selected indicators of financial performance of the companies.
- 3. To measure the financial health of the company by using Altman Z score model.

RESEARCH METHODOLOGY

The data regarding the Maharatna Companies for the period 2015-2019 used in this paper are collected from secondary source i.e. published financial reports of the companies and Capaitaline database. To analyze the financial performance of the companies four dimension of financial performance such as liquidity, solvency, operational efficiency and profit earning capacity are taken into consideration. CR, QR, AQR are used to judge the liquidity position of those companies. DER& ICR are treated here to measure the long term solvency of the companies. The operational efficiency of the companies has been measured here through CETR, WCTR & FATR. Lastly, ROI & NPM are taken into consideration to appraise the profit earning capacity of the companies. To rank the financial performance of the companies for each separated year under study a comprehensive rank test is carried out. Beside this, Kendall's coefficient of concordance and Altman Z score model are also used here to investigate whether there is any equality among the financial indicators or not and to measure the financial health of the companies respectively.

PRESENTATION OF DATA, ANALYSIS & DISCUSSION

TABLE 5.1.a: ANALYSIS OF FINANCIAL PERFORMANCE OF SAIL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year				Fina	ncial Perf	ormance	Indicator	'S				
	Liq	uidity R	atio	Solven	cy Ratio	Eff	iciency Ra	Profitability Ratio				
	CR	QR	AQR	DER	ICR	CETR	WCTR	FATR	ROI	NPM		
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[J]		
2015	0.83	0.31	0.328	0.7	1.8	0.94	3.72	1.25	6.01	4.57		
2016	0.63	0.25	0.017	0.9	-1.9	0.75	7.24	0.84	-7.63	-10.29		
2017	0.55	0.21	0.016	1.1	-0.7	0.81	10.80	0.87	-3.49	-6.37		
2018	0.68	0.29	0.013	1.3	0.58	0.89	10.21	0.97	2.87	-0.83		
2019	0.78	0.31	0.012	1.2	1.8	1.06	7.69	1.08	9.19	3.25		
Sou	**Source: Compiled and computed from the published Financial Statements of SAIL											

TABLE 5.1.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year				Rank	ks of Fina	ncial Pe	rforman	ce Indic	ators				
	RA	R _B	Rc	RD	RE	R _F	RG	Rн	Rı	RJ	ΣR	UR	
2015	1	1.5	1	5	1.5	2	5	1	2	1	20	1	
2016	4	4	2	4	5	5	4	5	5	5	39	5	
2017	5	5	3	3	4	4	1	4	4	4	37	4	
2018	3	3	4	1	3	3	2	3	3	3	25	3	
2019	2	1.5	5	2	1.5	1	3	2	1	2	21	2	
Kendall's	Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.3232												
	[computed s value=323.2; tabulated s value=231.2]												
				Sourc	e: Autho	rs' own	tabulatio	on					

OBSERVATIONS

I. Liquidity Ratio: One of the popular metric to access the liquidity position of a company is CR. The result depicts that a fluctuating trend is presented among the CR of SAIL and also these ratios do not satisfy the standard norm of CR i.e. 2 during any year under the study period. Even relating to QR & AQR though an upward trend can be observed still these ratios also do not satisfy the standard norm of QR & AQR i.e. 1 &0.5 respectively in any period.

II. Solvency Ratio: In case of DER & ICR although an upward and fluctuating trend can be observed respectively still it can be state that the long term financial health of SAIL is not up to the mark as these ratios are lower than the standard norm i.e. 2in both case.

III. Efficiency ratio: The Higher the CETR, WCTR & FATR ratios, the better the operational efficiency of the company. The CETR & FATR ratios are ranged within 2, which isn't high but the WCTR ratios are much higher than these two.

IV. Profitability Ratio: It can be observed from the result that both in case of ROI & NPM there was a drastic fall in the year 2016 and also a major fluctuating trend can be noticed among these ratios during the study period.

To measure the financial soundness of SAIL more unerringly during the study period, a comprehensive rank test was enacted, in which the values of all the selected financial performance indicators of each separated year were combined in a composite score and the **UR** is done based on that composite score of each year through following the principle that the lower the composite score, the higher the financial performance and vice versa. This ranking depicts that the company possess the best position on the basis of the overall financial performance in the year 2019 followed by the years 2015, 2016, 2017 & 2018. To investigate whether there was any uniformity among the selected financial performance indicators of SAIL during the study period **Kendall's coefficient of concordance (W)** is also carried out. According to the result of this test the calculated value of s is greater than the tabulated value of s (*323.2>231.2*). So it can be concluded that there is a uniformity among the selected dimensions of financial performance of the company during the study period was noticed.

TABLE 5.2.a: ANALYSIS OF FINANCIAL PERFORMANCE OF BHEL USING SELECTED FINANCIAL PERFORMANCE INDICATOR

Year				Fin	ancial Perf	ormance	e Indicato	rs		
	Liqu	uidity R	atio	Solver	ncy Ratio	Eff	iciency Ra	Profitability Ratio		
	CR	QR	AQR	DER	ICR	CETR	WCTR	FATR	ROI	NPM
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[J]
2015	2.19	1.73	0.54	3.66	24.35	0.97	1.14	6.48	4.84	4.70
2016	2.18	1.71	0.49	0.08	-54.06	0.93	1.09	6.22	-1.18	-2.66
2017	2.13	1.76	0.53	1.1	2.49	1.07	1.24	7.55	2.38	1.74
2018	1.94	1.70	0.51	0.9	7.23	1.19	1.38	8.84	4.42	2.78
2019	1.67	1.31	0.33	0.7	8.17	1.64	1.98	9.48	5.66	4.00
**	Source:	Compile	ed and c	ompute	d from the	publishe	ed Financi	al Staten	nents of BH	HEL**

14	DEL J.Z	.D. IVAIN		ANCIAL	F LINE OF	INIMIC			COMI	UIAIIC		•
Year		Ranks of Financial Performance Indicators										
	RA	R _B	Rc	RD	RE	RF	RG	R _H	Ri	RJ	∑R	UR
2015	1	3	1	4	1	4	4	4	2	1	25	1
2016	2	2	4	2	5	5	5	5	5	5	40	4
2017	3	1	2	3	4	3	3	3	4	4	30	3
2018	4	4	3	5	3	2	2	2	3	3	31	5
2019	5	5	5	1	2	1	1	1	1	2	24	2
Kendall's	Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.162											
	[computed s value=162; tabulated s value=231.2]											
				Sourc	e: Autho	ors' owr	ı tabulat	ion				

TABLE 5.2 b. DANK OF EINANCIAL DEDEODMANCE INDICATORS & COMPLITATION OF LID

OBSERVATIONS

I. Liquidity Ratio: Here in results, the CR shows an ideal ratio for continuous 3 years, but there is a sudden decrease in the year 2019. Same can be said for QR & AQR.

II. Solvency Ratio: The DER is maximum in the year 2015, after that it is showing a decreasing trend, the ICR is maximum in the same year, then becomes negative in the year 2016 & in the other years it is showing a fluctuating trend.

III. Efficiency Ratio: All the ratios (CETR, WCTR & FATR) are having an increasing trend over the years; all are maximum in the year 2019.

IV. Profitability Ratio: In both ROI & NPM, we are having a negative figure in the year 2016, ROI is maximum in the year 2019 & NPM is at maximum in the year 2015

In the same way, we had computed UFR of the company, which shows the best position in the year 2015, followed by the years 2019, 2017, 2016 & 2018. If we look at the **Kendall's Co-efficient of Concordance (w)**, the computed value of s is less than the tabulated value (162<231.2). So it can be concluded that there is no uniformity among the selected dimensions of financial performance of the company during the study period.

Year				Fir	ancial Per	formance	Indicato	rs				
	Liqu	uidity Ra	atio	Solver	ncy Ratio	Effi	ciency Ra	Profitability Ratio				
	CR	QR	AQR	DER	ICR	CETR WCTR I		FATR	ROI	NPM		
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[1]		
2015	4.73	4.70	4.17	0	56.99	0.044	0.046	1.18	67.35	3457.16		
2016	3.23	3.15	2.26	0	-134.5	0.038	0.038	0.48	85.54	10024.2		
2017	2.77	2.72	1.63	0	-105.2	0.11	0.13	0.87	81.76	5001.75		
2018	1.17	1.16	0.27	0	-35.12	0.48	1.14	0.84	54.45	2549.63		
2019	2.68	2.64	0.35	0	586.5	0.55	0.76	1.94	57.78	1120.58		
**Sour	**Source: Compiled and computed from the published Financial Statements of CII **											

TABLE 5.3.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year				Rank	s of Fin	ancial P	erforma	nce Indi	cators			
	RA	R _B	Rc	RD	RE	R _F	R _G	R _H	Rı	RJ	ΣR	UR
2015	1	1	1	3	2	4	4	2	3	3	24	1
2016	2	2	2	3	5	5	5	5	1	1	31	4
2017	3	3	3	3	4	3	3	3	2	2	29	2.5
2018	5	5	5	3	3	2	1	4	5	4	37	5
2019	4	4	4	3	1	1	2	1	4	5	29	2.5
Kendall's	Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.88											
	[computed s value=88; tabulated s value=231.2]											
	Source: Authors' own tabulation											

OBSERVATIONS

I. Liquidity Ratio: In this case, the CR, QR & AQR are showing a fluctuating trend over the years.

II. Solvency Ratio: For CIL, the company has no short term & long-term debt, so the ratio is 0 in all the years. But, except in 2015, ICR is giving negative figures in all the other years, that also in a fluctuating manner.

III. Efficiency Ratio: The CETR & WCTR are very minimum all over the years, the FATR is maximum in the year 2019 & showing a fluctuating trend also.

IV. Profitability Ratio: The ROI is excellent in all the cases & it is maximum in the year 2016. The NPM is in a very good position in this company, minimum in the last year i.e in 2019.

If we look at the UFR of the company, it is best in the year 2015, followed by the years 2017, 2019, 2016 & 2018. Kendall's Co-efficient of Concordance (w) shows that the computed value of s is much lower than the tabulated value of s(88<231.2). So, it can be said that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.4.a: ANALYSIS OF FINANCIAL PERFORMANCE OF GAIL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year				Fir	ancial Per	formanc	e Indicator	s				
	Liqu	uidity R	atio	Solven	cy Ratio	Ef	ficiency Ra	Profitability Ratio				
	CR	QR	AQR	DER	ICR	CETR	WCTR	FATR	ROI	NPM		
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[J]		
2015	1.06	0.85	0.46	6.34	12.86	1.73	94.08	1.77	7.08	5.35		
2016	0.99	0.83	0.47	4.56	5.96	1.62	-410.62	1.61	5.45	4.42		
2017	1.09	0.89	0.25	1.78	12.28	1.46	63.66	1.49	13.17	7.27		
2018	1.02	0.83	0.33	0.43	26.29	1.55	259.13	1.56	14.95	8.60		
2019	1.10	0.86	0.22	0.39	66.58	1.82	77.20	1.86	17.34	8.02		
**	**Source: Compiled and computed from the published Financial Statements of GAIL**											

	ADEL D.	T.D. IVAIN						AIONS		FUIAI			
Year		Ranks of Financial Performance Indicators											
	RA	R _B	Rc	RD	RE	RF	RG	Rн	Ri	RJ	∑R	UR	
2015	3	3	2	1	3	2	2	2	4	4	26	2	
2016	5	3.5	1	2	5	3	5	3	5	5	37.5	5	
2017	2	1	4	3	4	5	4	5	3	3	34	4	
2018	4	3.5	3	4	2	4	1	4	2	2	28.5	3	
2019	1	2	5	5	1	1	3	1	1	1	22	1	
Kendall's	Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.1537												
	[computed s value=153.7; tabulated s value=231.2]												
				Sourc	e: Auth	ors' ow	n tabula	tion					

TABLE 5.4 b. BANK OF FINANCIAL REPEORMANCE INDICATORS & COMPLITATION OF UR

OBSERVATION

I. Liquidity Ratio: The CR & QR of this company is not fluctuating too much, still they are not satisfying the ideal norms in any of the years, in the study period. The AQR is lying within the range of 0.22 – 0.47. It is maximum in the year 2016.

II. Solvency Ratio: The DER & ICR both showing a very fluctuating trend all over the years. The ICR had shown its maximum value in the year 2019, and also fulfilling the standard norms in each year.

III. Efficiency Ratio: The CETR is not so much fluctuating for this company, lying within the range of 1.46-1.82. The WCTR drastically, shows a negative figure in the year 2016. The FATR is more or less stable all over the years in the study period.

IV. Profitability Ratio: The trend of ROI & NPM is improving from the year 2017 & it came to its best position in the year 2019.

In this case, **UR** is best in the year 2019, followed by the years 2015, 2018, 2017 & 2016. The **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value (153.7<231.2), so it shows that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.5.a: ANALYSIS OF FINANCIAL PERFORMANCE OF IOCL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year				Fina	ncial Per	formance	e Indicators	6				
	Liq	uidity R	atio	Solveno	cy Ratio	Ef	ficiency Ra	Profitability Ratio				
	CR	QR	AQR	DER	ICR	CETR	WCTR	FATR	ROI	NPM		
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[1]		
2015	0.99	0.52	0.326	20.47	3.33	4.30	-502.71	4.27	1.20	4.28		
2016	0.88	0.40	0.015	17.93	6.45	3.37	-37.02	3.09	3.23	8.00		
2017	0.72	0.24	0.014	10.63	8.64	4.35	-10.05	3.03	5.30	22.73		
2018	0.76	0.28	0.004	5.86	10.44	4.44	-12.91	3.31	5.03	24.86		
2019	0.81	0.35	0.009	9.07	6.83	4.66	-18.18	3.71	3.20	18.14		
*	**Source: Compiled and computed from the published Financial Statements of IOCL**											

TABLE 5.5.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year				Rank	s of Fina	ancial P	erforma	nce Indi	cators					
	RA	R _B	Rc	RD	RE	R _F	R _G	R _H	Rı	RJ	∑R	UR		
2015	1	1	1	1	5	4	5	1	5	5	29	1.5		
2016	2	2	2	2	4	5	4	4	3	4	32	5		
2017	5	5 3 3 2 3 1 5 1 2 30 3.5												
2018	4	4 5 5 1 2 2 3 2 1 29 1.5												
2019	3	3	4	4	3	1	3	2	4	3	30	3.5		
Kendall's	coefficie	ent of co	oncorda	nce amo	ong the s	selected	l financi	ial perfo	rmance	indica	tors (W)	is 0.006		
	[computed s value=6; tabulated s value=231.2]													
				Sourc	e: Autho	ors' owr	n tabulat	tion						

OBSERVATIONS

I. Liquidity Ratio: For this company, the liquidity position is not so good during the study period as its CR, QR & specially the AQR are much lower than the standard ratio in each single year.

II. Solvency Ratio: The DER is showing a decreasing trend, minimum is in the year 2018. The ICR shows a fluctuating trend all over the years.

III. Efficiency Ratio: The CETR & FATR are more or less stable all over the years, showing the maximum value in the year 2019 & 2015 respectively. The WCTR is showing negative figures, throughout the study period, that also in a fluctuating manner.

IV. Profitability Ratio: The ROI has an increasing trend all over the years. But the trend of NPM is very fluctuating, maximum is in the year 2018. For this Company, the UR is best in the two of the years, given similar ranks, i.e 2015 & 2018, followed by the years 2017, 2019 & 2016. If we look at the **Kendall's Co-efficient of Concordance (w)**, the computed value of s is much lesser than tabulated value (6<231.2), so it can't be expected that there will be any uniformity

among the selected dimensions of financial performance of the company during the study period.

TABLE 5.6.a: ANALYSIS OF FINANCIAL PERFORMANCE OF NTPC USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators											
	Liq	uidity R	atio	Solvenc	y Ratio	Eff	iciency Ra	ntio	Profitabil	ity Ratio		
	CR	QR	AQR	DER	ICR	CETR	WCTR	FATR	ROI	NPM		
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[J]		
2015	1.22	0.98	0.50	9.52	4.72	0.52	10.17	0.54	14.04	6.17		
2016	0.87	0.67	0.14	10.48	4.21	0.46	-16.30	0.45	15.20	5.94		
2017	0.75	0.58	0.08	12.17	4.35	0.46	-7.94	0.43	11.99	8.30		
2018	0.88	0.70	0.09	13.97	4.10	0.43	-11.61	0.42	12.39	7.57		
2019	0.79	0.65	0.04	13.67 3.69 0.44 -7.55 0.42 13.01						7.45		
(Source:	Compile	ed and c	omputed	from the	publishe	ed Financi	al Staten	nents of NT	PC		

	/ear Banks of Financial Performance Indicators											
Year				Rai	nks of F	inancial	Perform	ance Ind	icators			
	RA	R _B	Rc	RD	RE	RF	RG	R _H	Ri	RJ	∑R	UR
2015	1	1	1	5	1	1	1	1	2	4	18	1
2016	3	3	2	4	3	2.5	5	2	1	5	30.5	2.5
2017	5	5	4	3	2	2.5	3	3	5	1	33.5	4
2018	2	2	3	1	5	4	4	4.5	4	2	30.5	2.5
2019	4	4	5	2	4	3	2	4.5	3	3	34.5	5
Kendall's	Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.176											
	[computed s value=176; tabulated s value=231.2]											
				Sou	rce: Aut	thors' ov	/n tabul	ation				

TABLE 5.6 b. BANK OF FINANCIAL REPEORMANCE INDICATORS & COMPLITATION OF UR

OBSERVATIONS

I. Liquidity Ratio: In this case, after 2015 the CR decreased and the within the range of 0.75-0.88 over the other years. The QR & AQR also follows the same trend being maximum in the year 2015.

II. Solvency Ratio: Being much higher than the standard norms the DER & ICR portraying a good solvency position of this company. The ICR is lying within the range of 3.69 - 4.72, over the years, being maximum in the year 2015.

III. Efficiency Ratio: The CETR & FATR is more or less stable over the years, but we can't say it is in a good position. The WCTR is positive only in the year 2015 & becomes negative after that, throughout the study period.

IV. Profitability Ratio: The ROI & NPM is not that much fluctuating for this company in the study period. The ROI is maximum in the year 2016 & lying within the range 11.99-15.20 over the years. The NPM is lying within the range 5.94-8.30.

If we look at the UR, it was in best position in the year 2015, followed by 2016, 2018, 2016 & 2019. Kendall's Co-efficient of Concordance (w) shows that the computed value of s is less than the tabulated value(176<231.2), so it shows that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.7.a: ANALYSIS OF FINANCIAL PERFORMANCE OF ONGC USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year				Fin	ancial Perf	ormance	e Indicato	rs		
	Liqu	uidity R	atio	Solver	ncy Ratio	Eff	iciency Ra	atio	Profitabi	lity Ratio
	CR	QR	AQR	DER	ICR	CETR	WCTR	FATR	ROI	NPM
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[J]
2015	1.57	1.26	0.51	0.33	9656.6	0.60	7.54	0.65	9.38	21.39
2016	1.72	1.41	0.61	0	18.82	0.55	6.01	0.60	7.91	20.81
2017	1.55	1.23	0.57	0	21.64	0.52	7.28	0.56	11.59	23.03
2018	0.44	0.30	0.05	3.99	20.15	0.67	-3.05	0.55	12.56	23.47
2019	0.61	0.44	0.02	3.43	17.03	0.78	-5.98	0.68	16.61	24.37
S	ource: (Compile	d and co	omputed	from the	publishe	d Financia	al Statem	nents of ON	IGC

TABLE 5.7.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year				Rank	s of Fin	ancial P	erforma	ance Ind	icators					
	RA	R _B	Rc	RD	RE	RF	R _G	R _H	Rı	RJ	∑R	UR		
2015	2	2	3	3	1	3	1	2	4	2	23	5		
2016	1	1	1	3.5	4	4	3	3	5	1	26.5	2.5		
2017	3	3 2 3.5 2 5 2 4 3 3 30.5 2.5												
2018	5	5 5 4 1 3 2 4 5 2 4 35 1												
2019	4	4	5	2	5	1	5	1	1	5	33	4		
Kendall's	coeffici	ent of c	oncorda	nce amo	ng the s	selected	l financi	ial perfo	rmance	e indica	tors (W) is	0.0947		
	[computed s value=94.7; tabulated s value=231.2]													
				Sourc	e: Auth	ors' ow	n tabula	tion						

OBSERVATIONS

I. Liquidity Ratio: If we look at the CR, it's giving a fluctuating trend over the years. The same we can say for QR & AQR. The QR & AQR are in their best position in the year 2016.

II. Solvency Ratio: The DER is showing 0 in two of the years, in those years the company had no debts. If we look at the ICR, it's terribly fluctuating, being maximum in the year 2015 (9656.6) & minimum in the year 2019 (17.03).

III. Efficiency Ratio: The CETR is lying within the range 0.52-0.78, over the years. The WCTR is negative in the years 2018 & 2019. The FATR is not that much fluctuating over the years.

IV. Profitability Ratio: The ROI & NPM, both showing an increasing trend over the years, being maximum in the year 2019.

For this Company, if we look at the UR, it was in best position in the year 2016, followed by 2016, 2017, 2019 & 2015. Kendall's Co-efficient of Concordance (w) shows that the computed value of s is less than the tabulated value (40<231.2), so it shows that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.8.a: ANALYSIS OF FINANCIAL PERFORMANCE OF BPCL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year				Fina	incial Per	formance	e Indicators	5		
	Liq	uidity R	atio	Solveno	y Ratio	Ef	ficiency Ra	tio	Profitabil	ity Ratio
	CR	QR	AQR	DER	ICR	CETR	WCTR	FATR	ROI	NPM
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[1]
2015	0.93	0.48	0.065	17.27	13.72	9.29	-101.22	8.51	13.70	2.13
2016	0.88	0.45	0.098	20.35	19.92	5.83	-52.25	5.24	16.77	3.92
2017	0.79	0.33	0.003	10.56	23.27	5.98	-21.90	4.69	23.79	3.97
2018	0.83	0.36	0.005	7.54	14.54	5.95	-30.64	4.98	21.87	3.37
2019	2019 0.99 0.53 0.036 12.84 8.91 5.61 -491.84 5.55							5.55	17.19	2.39
*:	*Source	: Compi	led and c	omputed	from the	publish	ed Financia	l Statem	ents of BPC	L**

14	DEL 3.0.	S. IVAIN		AIICIAL	I LINI OI	UNANC			COM	UIAIN		
Year				Rank	s of Fina	ancial P	erforma	nce Indi	cators			
	RA	R _B	Rc	RD	RE	RF	RG	R _H	Ri	RJ	ΣR	UR
2015	2	2	2	2	4	1	4	1	5	5	28	2
2016	3	3	1	1	2	4	3	3	4	2	36	1
2017	5	5	5	5	1	2	1	5	1	1	30	3
2018	4	4	4	4	3	3	2	4	2	3	34	5
2019	1	1	3	3	5	5	5	2	3	4	32	4
Kendall's	Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.04											
	[computed s value=40; tabulated s value=231.2]											
			3	**Sourc	e: Autho	ors' owr	tabulat	ion**				

TABLE 5.8 b. BANK OF FINANCIAL REPEORMANCE INDICATORS & COMPLITATION OF UR

OBSERVATIONS

I. Liquidity Ratio: The liquidity position of this company is not so good since the three ratio- CR, QR & AQR are much lower than the standard norms

II. Solvency Ratio: The DER & ICR, both showing a fluctuating trend, the DER is at it's maximum in the year 2016 & the ICR is maximum in the year 2017.

III. Efficiency Ratio: The CETR is maximum in the year 2015 & then remain stable over the years. The WCTR is showing minimum figures throughout the years, that also in a fluctuating mode. The FATR is maximum in the year 2015, & after that more or less stagnant.

IV. Profitability Ratio: The ROI is maximum in the year 2017 & showing a fluctuating trend. The NPM is within the range 2.13-3.97.

For this Company, if we look at the **UR**, it was in best position in the year 2016, followed by 2015, 2017, 2019 & 2018. **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value (94.7<231.2), so it shows that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.9.a: ANALYSIS OF FINANCIAL PERFORMANCE OF HPCL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year				Fina	ncial Perf	ormance	e Indicator	S		
	Liq	uidity R	atio	Solveno	cy Ratio	Eff	iciency Ra	tio	Profitabil	lity Ratio
	CR	QR	AQR	DER	ICR	CETR	WCTR	FATR	ROI	NPM
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[J]
2015	1.16	0.62	0.22	50.31	6.87	5.67	52.92	6.35	6.23	1.32
2016	1.03	0.55	0.20	42.84	9.97	4.98	256.64	5.08	8.84	2.51
2017	0.72	0.31	0.004	16.92	17.84	7.45	-14.58	4.93	29.21	3.31
2018	0.78	0.39	0.03	12.85	17.24	6.97	-20.88	5.23	24.77	2.89
2019	0.76	0.40	0.02	16.47	13.86	7.49	-20.06	5.45	21.48	2.19
**	Source	: Compil	ed and c	omputed	from the	publishe	ed Financia	l Statem	ents of HPC	CL**

TABLE 5.9.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year				Rank	s of Fin	ancial P	erforma	nce Indi	cators				
	RA	R _B	Rc	RD	RE	R _F	R _G	R _H	Rı	RJ	∑R	UR	
2015	1	1	1	1	5	4	2	1	5	4	26	1	
2016	2	2	2	2	4	5	1	4	4	4	30	2.5	
2017	5	5	5	3	1	2	5	5	1	1	33	5	
2018	3	4	3	5	2	3	3	3	2	2	30	2.5	
2019	4	3	4	4	3	1	4	2	3	3	31	4	
Kendall's	coeffici	ent of co	oncorda	nce amo	ong the	selected	l financi	ial perfo	rmance	e indica	tors (W)	is 0.026	
	[computed s value=26; tabulated s value=231.2]												
				Sourc	e: Autho	ors' owr	ı tabulat	tion					

OBSERVATIONS

I. Liquidity Ratio: For this Company, the CR & QR are highest in the year 2015, showing a decreasing trend over the study period. The AQR is very minimum all over the years, minimum in the year 2017.

II. Solvency Ratio: The DER & ICR is showing opposite trend to each other, the DER is showing decreasing trend whereas ICR is showing increasing trend over the years but on an overall basis both are portraying a favorable solvency position of the company as both the ratio are higher than the ideal norm.

III. Efficiency Ratio: The CETR is showing a fluctuating trend over the years. The WCTR is maximum in the year 2016 & after 2016 all the figures are negative. The FATR again here, showing a decreasing trend, being maximum in the year 2015.

IV. Profitability Ratio: The ROI improves a lot from the year 2017 & the NPM also improved from the year 2017

For this particular Company, if we look at the **UR**, it was in best position in the year 2015, followed by 2016, 2018, 2019 & 2017. **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value (26<231.2), so it shows that, there is no chance of uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.10.a: ANALYSIS OF FINANCIAL PERFORMANCE OF PGCIL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

rear			Financial Performance indicators								
	Liqu	uidity R	atio	Solvenc	y Ratio	Eff	iciency Ra	atio	Profitabi	lity Ratio	
	CR	QR	AQR	DER	ICR	CETR	WCTR	FATR	ROI	NPM	
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[1]	[1]	
2015	0.36	0.33	0.12	17.31	2.59	0.15	-1.23	0.13	3.64	28.98	
2016	0.40	0.36	0.13	19.54	2.50	0.14	-1.36	0.13	3.93	28.97	
2017	0.38	0.35	0.11	21.50	2.52	0.17	-1.39	0.15	9.57	29.24	
2018	0.40	0.36	0.07	23.59	2.38	0.18	-1.55	0.16	9.86	27.69	
2019	0.62	0.59	0.11	25.87	1.99	0.42	-2.18	0.35	10.04	29.12	
9	Source: (Compile	d and co	omputed f	rom the	publishe	ed Financi	al Staten	nents of PG	CIL	

14														
Year				Ranks	of Fina	incial Pe	erforma	nce Indi	cators					
	RA	R _B	Rc	RD	RE	RF	RG	Rн	Rı	RJ	∑R	UR		
2015	5	5	2	5	1	4	1	4.5	5	3	23	5		
2016	2.5	2.5	1	4	3	5	2	4.5	4	4	26.5	2.5		
2017	4	4 3.5 3 2 3 3 3 3 1 30.5 2.5												
2018	2.5	.5 2.5 5 2 4 2 4 2 2 5 35 1												
2019	1	1	3.5	1	5	1	5	1	1	2	33	4		
Kendall's	Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.110													
	[computed s value=110; tabulated s value=231.2]													
			*	*Source	e: Autho	ors' owr	n tabula	tion**						

TABLE 5 10 b. BANK OF EINANCIAL PERFORMANCE INDICATORS & COMPLITATION OF LIR

OBSERVATIONS

I. Liquidity Ratio: If we look at the CR here, it suddenly reaches to the maximum in the year 2019, in the other years it doesn't varies that much. The QR also follows the same trend. The AQR is very minimum here, throughout the study period.

II. Solvency Ratio: The DER here lies within the range 17.31-25.87, showing an increasing trend over the years, being, maximum in the year 2019. The ICR doesn't fluctuate that much here, lying within the range 1.99-2.59.

III. Efficiency Ratio: The CETR & FATR are minimum here, over all the years, being maximum here in the year 2019. The WCTR here shows negative figures over all the years.

IV. Profitability Ratio: The ROI here showing an increasing trend over the years, being maximum in the year 2019. The NPM here doesn't fluctuate that much, which lies within the range 27.69-29.24, being maximum in the year 2017.

For this Company, if we look at the **UR**, it was in best position in the year 2018, followed by 2016, 2017, 2019 & 2015. **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value (110<231.2), so it can be concluded that, there is no uniformity among the selected dimensions of financial performance of the company during the study period

		TADLE 5.1.	L: ALTIVIAN Z	-SCORE AVE	KAGE VALUE	S OF WIAHARA		NIES		
Year	SAIL	BHEL	CIL	GAIL	IOCL	NTPC	ONGC	BPCL	HPCL	PGCIL
2015	1.38	1.60	9.82	2.77	2.81	1.02	1.64	4.30	3.60	0.51
2016	0.80	1.11	8.50	2.58	2.53	0.84	1.47	3.46	3.35	0.49
2017	0.86	1.42	8.48	2.78	2.45	0.87	1.40	6.87	3.31	0.62
2018	1.07	1.28	7.78	2.83	2.57	0.84	1.11	3.29	3.47	0.61
2019	1.22	1.01	4.94	2.74	2.38	0.67	1.95	3.37	3.34	0.53
Average Z-Score	1.06	1.28	7.90	2.74	2.55	0.85	1.51	4.26	3.41	0.55
Decision	Danger Zone	Grey Zone	Safe Zone	Grey Zone	Grey Zone	Danger Zone	Grey Zone	Safe Zone	Safe Zone	Danger Zone

TABLE 5 11. ALTMAN 7-SCORE	AVERAGE VALUES O	F ΜΔΗΔΡΔΤΝΔ	COMPANIES
TADLE J.II. ALTIVIAN 2-JCORE	AVENAGE VALUES O	FIVIARANATINA	CONFAMILS

OBSERVATIONS

According to the Altman Z-Score model, out of 10 Maharatna company 3 companies namely- CIL, BPCL & HPCL are belonging to the safe zone. Even the Z-Score of these three companies for 5 consecutive years are also more than 2.99, which indicates that financial performance of these companies are quite excellent and among these three companies the performance of CIL is the best as the Z-Score of it is the highest in each case. Again out of 10 Maharatna companies 4 companies namely- BHEL, GAIL, IOCL & ONGC are belonging to the grey zone where their average Z-Score values are ranged between1.21 & 2.99. Even it can be observed that in case of BHEL Z-Score value is in danger zone in the year 2016 & 2019 and the same can be observed in case of ONGC in the year 2018. Though these companies are not in danger zone yet, still they have to work to improve their financial performance. Now the rest 3 companies namely- SAIL, NTPC & PGCIL belong to danger zone as their Z-Score value is lower than 1.21. They also can be termed as sick company on the basis of Z-Score values. Among these three companies the Z-Score value is lowest in case of PGCIL which indicates that out of these 10 Maharatna companies the financial performance of PGCIL is worst.

6. CONCLUSION

- After making the analysis it can be conclude that relating to the liquidity position out of 10 Maharatna companies, 6 companies, namely- SAIL, IOCL, NTPC, BPCL, HPCL & PGCIL are in a poor condition whereas the short term solvency level of only 2 Maharatna companies- BHEL & CIL are quiet favorable. The liquidity position of GAIL is medium.
- Regarding the solvency, it can be state that except SAIL & BHEL the long term solvency level of the rest is in a good position. Performance of SAIL & BHEL in this case is poor and medium respectively.
- In case of efficiency it is noticeable that except NTPC, BPCL & HPCL the operating efficiency of the rest are medium. Out of these 3 companies the efficiency level of BPCL & HPCL is good but in respect of NTPC the efficiency level is very poor.
- With reference to the profitability it is visible that except SAIL the profit earning capacity of others Maharatna companies are quiet admirable whereas this profit earning capacity of SAIL is medium.
- The analysis of composite scores of each company based on selected performance indicators reveals that out of 10Maharatna companies, 5 companies, namely- SAIL, BHEL, CIL and HPCL are in their best position in the year 2015.
- A considerable degree of uniformity among the financial performance indicators can be observed only in case of SAIL during this study period.
- Outcome of financial distress analysis through Altman Z-Score expressed that mainly 3 companies- SAIL, NTPC & PGCIL are not in a sound condition, whereas CIL, BPCL & HPCL are in safe zone. And the rest- BHEL, GAIL, IOCL & ONGC are in grey zone.

REFERENCES

- 1. Agarwal, V and Taffier, R (2007), Comparing the performance of market based and accounting based bankruptcy prediction models, available at:http://ssrn.com/abstract=968252.
- 2. Bermann, Martin, Improving the Comparability of Insolvency Predictions (2005). Dresden Economics Discussion Paper Series No. 08/2005. Available at SSRN:http://ssrn.com/abstract=731644
- 3. Chakraborty K. (2014). Linkage between Efficiency of Assets Management and Profitability during the Post-liberalisation Era: A Study on Select Companies of Indian Public Sector. J. Inst. Public Enterp, 37(3-4):1-17
- 4. Chiung-Ying Lee and Chia-Hua Chang (2010), Application of company financial crisis early warning model –Use of Financial Reference Database, International Journal of Business and Economic Sciences, 2(1), 40-45
- 5. Datt R, Sundharam KPM (2002). Indian Economy, Mittal Publications, New Delhi pp. 99-127
- 6. Goswami, D. & Hazarika, p. "Stages and Symptoms of Industrial Sickness- A Mathematical Model Applied to a Few Small Scale Industrial Units in NE Indian State of Assam", ISBN: 978-1-61804-098-5
- 7. Gupta S, Jain PK, Yadav SS, Gupta VK (2011). Financial performance of Disinvested Central Public Sector Enterprises in India: An Empirical Study on Select Dimensions. J. Appl. Fin. Bank. 1(4):57-106.

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

- 8. Hui, H and Jhao, Jing- Jing (2008), Relationship between corporate governance and financial distress: An empirical analysis of the distressed companies in China, International Journal of Management, 25 32-28
- 9. Jones, F.L (1987), Current techniques in bankruptcy prediction, Journal of Accounting Literature, 6 131-164
- 10. K. Srinivas and V. Apparao: "Sickness causes in cooperative sugar factories in Andhra Pradesh a case study" www.elixirpublishers.com (Elixir International Journal), K.Srinivas et al./ Elixir Mgmt. Arts 43 (2012) 7033-7039
- 11. Khan AQ (1990). Efficiency Profile of Public Enterprises in India, Vohra Publishers and Distributors, Allahabad pp. 30-43
- 12. Maitlo, M. G. "Sickness in Small-Scale Industries of Sindh: Causes & Remedies". A Case Study of Larkana Estate Area, Australian Journal of Basic and Applied Sciences, 1(4): 860-865, 2007, ISSN 1991-8178.
- 13. Mallik AK, Sur D (2004). Financial Performance of Indian Enterprises in the Post-Liberalisation Era: A Case Study of National Thermal Power Corporation Limited. Res. Bull. 25:59-69.
- 14. Pursell, G. Industrial Sickness, Primary and Secondary: "The Effects of Exit Constraints on Industrial Performance", The World Bank Economic Review, Vol. 4, No. 1 (Jan., 1990), pp. 103-114, Oxford University Press
- 15. Sur D, Panja R (2014). Profitability Trends in NTPC Ltd. during the Pre- and Post- liberalisation Periods: A Comparative Study. J. Inst. Public Enterp. 37(1&2):78-90.
- 16. Sur D, Yadav SK (2014). Trends in Asset Management Efficiency in Maharatna Central Public Sector Enterprises: A Cross-Sectional Analysis. J. Inst. Public Enterp. 37(3 & 4):78-90.
- 17. V.K. Joshi, "Management of Industrial Sickness" (Jaipur, 1987). pp.57-59

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce & 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 <u>infoijrcm@gmail.com</u> 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 cooperation of like-minded scholars, we shall be able to serve the society with our humble efforts.

Our Other Fournals







INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT A Monthly Double-Blind Peer Reviewed (Refereed/Juried) Open Access International e-Journal - Included in the International Serial Directories http://ijrcm.org.in/