INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT



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

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

Circulated all over the world & Google has verified that scholars of more than 4255 Cities in 176 countries/territories are visiting our journal on regular basis.

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

CONTENTS

Sr.	r. TITLE & NAME OF THE AUTHOR (C)				
No.	TITLE & NAME OF THE AUTHOR (S)				
1.	IMPACT OF WORKING CAPITAL MANAGEMENT ON THE PROFITABILITY OF LISTED CEMENT	1			
	COMPANIES IN TANZANIA				
	DR. SRINIVAS MADISHETTI & DR. NSUBILI ISAGA				
2.	A STUDY ON COST OF REJECTION (REJECTED SAMPLES) IN A NABL ACCREDITED LABORATORY AT				
	A POST GRADUATE TEACHING HOSPITAL IN DEHRADUN, UTTARAKHAND				
	PIYALI MITRA M., RIMMA MANDAL, M. M. MATHAVAN & DR. VIBHA GUPTA				
3.	BORDER GUARDS SYSTEMS USING HYBRID WIRELESS SENSOR NETWORKS				
	T. DEEPIGA, A. SIVASANKARI & S. A. SHOBA				
4.	INDEPENDENT ACCESS TO ENCRYPTED CLOUD DATABASES	20			
	ROHINI GAIKWAD, VAISHALI GHATE & JALPA MEHTA				
5.	SECURE IMAGE TRANSMISSION USING LOSSLESS ARITHMETIC CODING	23			
	AASHA M. VANVE, ABIRAMI SIVAPRASAD & SWATI DESHPANDE				
6 .	SPAM ZOMBIE DETECTION SYSTEM	28			
	RUTUJA BANKAR, JYOTI DESHMUKH & SWATI DESHPANDE				
7 .	SECURE AND SCALABLE DATA SHARING IN CLOUD STORAGE WITH KEY-AGGREGATE	32			
	CRYPTOSYSTEM				
	B. RAJESH, D. L. SRINIVAS & A.EMMANUEL RAJU				
8.	IDENTIFYING LISTENING SKILLS AMONG BOYS AND GIRLS OF ARTS AND SCIENCE COLLEGE	36			
	STUDENTS				
	K.ELAMATHI				
9.	A STUDY ON FINANCIAL HEALTH OF SELECTED SOFTWARE COMPANIES IN INDIA	39			
40	R. DEVIPRASANNA	42			
10 .	BORDER PATROL SYSTEMS-USING ADVANCED WIRELESS SENSOR NETWORKING DEVICES	43			
11	T. DEEPIGA & A. SIVASANKARI THE NEW SOCIAL CONTRACT FOR GREEN BUSINESS	4.0			
11.	RAJEEV GUPTA	46			
12.	DATA SECURITY AND PRIVACY PROTECTION IN CLOUD COMPUTING	50			
12.	ROHINI GAIKWAD & JALPA MEHTA	30			
13.	SURVEY OF VARIOUS CRYPTOGRAPHIC TECHNIQUES	56			
13.	AASHA M. VANVE & ABIRAMI SIVAPRASAD	30			
14.	CYBER SECURITY TRENDS, ISSUES AND ANALYSIS OF TOOLS	63			
17.	RUTUJA BANKAR & LUKESH KADU	03			
15.	DETERMINANTS OF THE CUSTOMER LOYALTY IN ETHIOPIAN BANKING INDUSTRY (WITH	74			
	REFERENCE TO PRIVATE COMMERCIAL BANK)				
	TEKABE SINTAYEHU & MOHAMMAD SULTAN				
16.	KNOWLEDGE DISCOVERY IN DATABASES	81			
	ANANT KUMAR				
17 .	GREEN MARKETING: PATH TO SUSTAINABLE DEVELOPMENT	86			
	VANDANA BALA				
18.	IMPLICATION OF REGULATION ON THE DEVELOPMENT OF MICROFINANCE IN THE NIGERIAN	90			
	ECONOMY				
	GODSPOWER GODWIN ITEMEH				
19.	AN ASSESSMENT OF TAX EVASION LEVEL AMONG NIGERIAN TAXPAYERS	94			
	ZAKARIYA'U GURAMA				
20.	AUTOMATIC PROFILE CHANGING USING ANDROID PHONES AS PER GPS LOCATION	98			
	R. SARVANI & R. KUMARI				
	REQUEST FOR FEEDBACK & DISCLAIMER	105			

CHIEF PATRON

PROF. K. K. AGGARWAL

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

FOUNDER PATRON

LATE SH. RAM BHAJAN AGGARWAL

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

FORMER CO-ORDINATOR

DR. S. GARG

Faculty, Shree Ram Institute of Business & Management, Urjani

ADVISORS

PROF. M. S. SENAM RAJU

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

PROF. S. L. MAHANDRU

Principal (Retd.), MaharajaAgrasenCollege, Jagadhri

EDITOR

PROF. R. K. SHARMA

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

EDITORIAL ADVISORY BOARD

DR. RAJESH MODI

Faculty, YanbuIndustrialCollege, Kingdom of Saudi Arabia

PROF. PARVEEN KUMAR

Director, M.C.A., Meerut Institute of Engineering & Technology, Meerut, U. P.

PROF. H. R. SHARMA

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

PROF. MANOHAR LAL

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

PROF. ANIL K. SAINI

Chairperson (CRC), GuruGobindSinghl. P. University, Delhi

PROF. R. K. CHOUDHARY

Director, Asia Pacific Institute of Information Technology, Panipat

DR. ASHWANI KUSH

Head, Computer Science, UniversityCollege, KurukshetraUniversity, Kurukshetra

DR. BHARAT BHUSHAN

Head, Department of Computer Science & Applications, GuruNanakKhalsaCollege, Yamunanagar

DR. VIJAYPAL SINGH DHAKA

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

DR. SAMBHAVNA

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

DR. MOHINDER CHAND

Associate Professor, KurukshetraUniversity, Kurukshetra

DR. MOHENDER KUMAR GUPTA

Associate Professor, P.J.L.N.GovernmentCollege, Faridabad

DR. SHIVAKUMAR DEENE

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

DR. BHAVET

Faculty, Shree Ram Institute of Engineering & Technology, Urjani

ASSOCIATE EDITORS

PROF. ABHAY BANSAL

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

PROF. NAWAB ALI KHAN

Department of Commerce, AligarhMuslimUniversity, Aligarh, U.P.

ASHISH CHOPRA

Sr. Lecturer, Doon Valley Institute of Engineering & Technology, Karnal

FORMER TECHNICAL ADVISOR

AMITA

Faculty, Government M. S., Mohali

FINANCIAL ADVISORS

DICKIN GOYAL

Advocate & Tax Adviser, Panchkula

NEENA

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

<u>LEGAL ADVISORS</u>

JITENDER S. CHAHAL

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

CHANDER BHUSHAN SHARMA

Advocate & Consultant, District Courts, Yamunanagar at Jagadhri

<u>SUPERINTENDENT</u>

SURENDER KUMAR POONIA

1.

Nationality

CALL FOR MANUSCRIPTS

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

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

Guidelines for Submission (OF MANUSCRIPI
COVERING LETTER FOR SUBMISSION:	DATED:
	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
<mark>specify</mark>)	
DEAR SIR/MADAM	
Please find my submission of manuscript entitled '	' for possible publication in
one of your journals.	To possible publication in
I hereby affirm that the contents of this manuscript are original. Further	rmore, it has neither been published elsewhere in any
language fully or partly, nor is it under review for publication elsewhere.	
I affirm that all the co-authors of this manuscript have seen the submitted inclusion of names as co-authors.	ed version of the manuscript and have agreed to their
Also, if my/our manuscript is accepted, I agree to comply with the formalitied discretion to publish our contribution in any of its journals.	es as given on the website of the journal. The Journal has
NAME OF CORRESPONDING AUTHOR	-4 / 3/
Designation	
Institution/College/University with full address & Pin Code	1
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	:

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. 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 mail, except the cases where the author wishes to give any **specific message** w.r.t. to the manuscript.
- d) The total size of the file containing the manuscript is expected to be below 1000 KB.
- e) Abstract alone will not be considered for review and the author is required to submit the complete manuscript in the first instance.
- f) The journal gives acknowledgement w.r.t. the receipt of every email within twenty four hours and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of manuscript, within two days of submission, the corresponding author is required to demand for the same by sending a separate mail to the journal.
- g) The author (s) name or details should not appear anywhere on the body of the manuscript, except the covering letter and the cover page of the manuscript, in the manner as mentioned in the guidelines.
- 2. MANUSCRIPT TITLE: The title of the paper should be **bold typed**, **centered** and **fully capitalised**.
- 3. AUTHOR NAME (S) & AFFILIATIONS: Author (s) name, designation, affiliation (s), address, mobile/landline number (s), and email/alternate email address should be given underneath the title.
- 4. ACKNOWLEDGMENTS: Acknowledgements can be given to reviewers, guides, funding institutions, etc., if any.
- 5. **ABSTRACT**: Abstract should be in **fully italicized text**, ranging between **150** to **300 words**. The abstract must be informative and explain the background, aims, methods, results & conclusion in a **SINGLE PARA**. **Abbreviations must be mentioned in full**.
- 6. **KEYWORDS**: Abstract must be followed by a list of keywords, subject to the maximum of **five**. These should be arranged in alphabetic order separated by commas and full stop at the end. All words of the keywords, including the first one should be in small letters, except special words e.g. name of the Countries, abbreviations.
- 7. **JEL CODE**: Provide the appropriate Journal of Economic Literature Classification System code (s). JEL codes are available at www.aeaweb.org/econlit/jelCodes.php, however, mentioning JEL Code is not mandatory.
- 8. **MANUSCRIPT**: Manuscript must be in <u>BRITISH ENGLISH</u> prepared on a standard A4 size <u>PORTRAIT SETTING PAPER</u>. It should be free from any errors i.e. <u>grammatical</u>, spelling or <u>punctuation</u>. 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.
- SUB-HEADINGS: All the sub-headings must be bold-faced, aligned left and fully capitalised.
- 11. MAIN TEXT:

THE MAIN TEXT SHOULD FOLLOW THE FOLLOWING SEQUENCE:

INTRODUCTION REVIEW OF LITERATURE NEED/IMPORTANCE OF THE STUDY STATEMENT OF THE PROBLEM OBJECTIVES HYPOTHESIS (ES) RESEARCH METHODOLOGY RESULTS & DISCUSSION FINDINGS RECOMMENDATIONS/SUGGESTIONS CONCLUSIONS LIMITATIONS SCOPE FOR FURTHER RESEARCH REFERENCES APPENDIX/ANNEXURE

The manuscript should preferably range from 2000 to 5000 WORDS.

- 12. **FIGURES & TABLES**: These should be simple, crystal **CLEAR**, **centered**, **separately numbered** & self explained, and **titles must be above the table/figure**. **Sources of data should be mentioned below the table/figure**. *It should be ensured that the tables/figures*are referred to from the main text.
- 13. **EQUATIONS/FORMULAE:** These should be consecutively numbered in parenthesis, horizontally centered with equation/formulae number placed at the right. The equation editor provided with standard versions of Microsoft Word should be utilised. If any other equation editor is utilised, author must confirm that these equations may be viewed and edited in versions of Microsoft Office that does not have the editor.
- 14. **ACRONYMS**: These should not be used in the abstract. The use of acronyms is elsewhere is acceptable. Acronyms should be defined on its first use in each section: Reserve Bank of India (RBI). Acronyms should be redefined on first use in subsequent sections.
- 15. **REFERENCES**: The list of all references should be alphabetically arranged. *The author (s) should mention only the actually utilised references in the preparation of manuscript* and they are supposed to follow Harvard Style of Referencing. Also check to make sure that everything that you are including in the reference section is duly cited in the paper. The author (s) are supposed to follow the references as per the following:
- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
- Use (ed.) for one editor, and (ed.s) for multiple editors.
- When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
- Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
- The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
- For titles in a language other than English, provide an English translation in parenthesis.
- Headers, footers, endnotes and footnotes should not be used in the document. However, you can mention short notes to elucidate some specific point, which may be placed in number orders after the references.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

BOOKS

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

CONTRIBUTIONS TO BOOKS

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

JOURNAL AND OTHER ARTICLES

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

CONFERENCE PAPERS

• Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

UNPUBLISHED DISSERTATIONS

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

ONLINE RESOURCES

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

WEBSITES

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

THE NEW SOCIAL CONTRACT FOR GREEN BUSINESS

RAJEEV GUPTA ASST. PROFESSOR MANGALMAY INSTITUTE OF MANAGEMENT TECHNOLOGY GREATER NOIDA

ABSTRACT

Over the past few decades, concepts that focus on environmental stewardship have gripped the collective intellect of humankind, and established a common global imperative to respond to critical issues that arise from world- wide climate change and natural resources conservation. The article explores, the way events occurring in the business environment has generated public awareness and reactions towards sustainability. The changed attitude of people finds resonance in the voice of various public action groups. It is further reflected in the government's actions which are sometimes in the form of legislations. Simultaneously, certain leading businesses and brands start initiating changes to fulfill 'the new social contract' for green business as a response to the environment.

KEYWORDS

events, contract, green, sustainability.

INTRODUCTION

here are unwritten social contracts that have to be fulfilled if organisation need to earn the trust and the moral right needed to operate in the society. This is the only way they can create sustained stakeholder value. Organisations are among the highest consumers of resources and also among the largest contributors of emissions. Hence, they have a significant role to play in how they carry the sustainability mandate forward. More importantly, given the influence that organizations have on the society, they should be able to leverage it to bring forth social change. They not only play a prominent role in the creation and distribution of wealth and improving the general standard of living but, also fulfilling the aspirations of society.

We're in an interesting period in history when the relationship businesses have with society is undergoing a fundamental, permanent change. And sustainability, if not the epicenter of that change, certainly exemplifies it. We look at the name of few visionary organizations and brands that took the lead. These are the firms that anticipated and understood the range of likely policy scenarios, and build defensive and offensive strategies to address the environmental concerns of the general public and the government.

LITERATURE REVIEW

From 1920 until the mid forties, environmental concerns were not on the forefront of the public's mind anymore, as this was the time of both World Wars and the era of the Great Depression. The people in the western world had other battles to fight which is why active environmentalism was largely on hold till the postwar period (Web Ecoist, 2008). Then, a series of disastrous events took place which caused a public outcry in Europe as well as the US. In 1948 the tragedy of Donora, Pennsylvania, which was an air inversion pall of smog, killed twenty people and sickened thousands more. Additionally in the same year, the first of London's 'Killer Fogs' took the life of six hundred people (Environmental History Timeline, n.d.) and only 4 years later in 1952 England faced one of its greatest environmental catastrophes the so-called 'Great Smog'. Approximately four thousand Londoners died within a couple of days of the 'Great Smog' and many more in the aftermath over the course of the next years. These events marked another essential impetus for the modern environmental movement.

Afterward, during the time of the 'Swinging Sixties', the public's fascination with technology slowly began to cool (Caldwell, 1991) and a number of threats to environmental quality induced attention from the media, policymakers and the general public (Dunlap, 1991). The book "Silent Spring" by Rachel Carson, which was published in 1962, was probably the leading trigger for environmental debate during that decade. In her book, Carson points out the devastating effects of business excesses and imprudent uses of technology on the environment (Caldwell, 1991; Iyer, 1994). In particular, Iyer (1994) states that the publication of "Silent Spring" caused the public to experience a shift in sentiment towards environmental issues and more and more governmental regulations began to reflect the aforementioned general attitude. Therefore this was the starting point of continuous pressure exertion on local as well as international companies and is today referred to as the initiation of the Green Revolution. One of the best examples of the manifold passed environmental laws and policies was the introduction of the National Environmental Policy Act (NEPA) in 1969 (Caldwell, 1991). The climax of environmental activism during that period was reached in 1970 with the celebrations of the first Earth Day, which was created to raise awareness and appreciation for the planet's environment (Caldwell, 1991; Dunlap, 1991)

During the **seventies**, the green movement abated a little bit as it lost some of its wide ranging public appeal (Dunlap, 1991). Yet, environmentalism as such achieved international and political legitimacy at the 1972 United Nations (UN) Conference on the Human Environment (also known as the Stockholm Conference). Many environmental nongovernmental organizations (NGOs) were present at the conference under the theme of 'Only One Earth' and as a result of the meetings the UN Environmental Programme (UNEP) was established (Caldwell, 1991; Environmental History Timeline, n.d.). Also during the seventies, it was discovered that the stratospheric ozone layer was thinning due to the emission of chlorofluorocarbons (CFCs) commonly referred to as refrigerants (Caldwell, 1991). This finding ultimately led to the 1987 Montreal Protocol which was an international agreement signed by twenty-four countries around the world to phase out the use of ozone exhausting substances (Caldwell, 1991; Environmental History Timeline, n.d.).

OBJECTIVES

The article explores how the events occurring in the business environment generated public awareness and reactions towards sustainability. This changed attitude of people found resonance in the voice of various public action groups. It is further reflected in the government's actions which are in the form of legislations. As a response to the environment, certain leading businesses and brands started initiating changes not only for 'compliance' but to fulfill 'the new social contract' for green business

RESULTS AND DISCUSSIONS

When we start putting down the various environmental disasters, in a chronological order, we find that they gripped the collective consciousness of the mankind and started an immediate chain of reactions. These events occurring in the business environment generated public awareness and reactions towards sustainability. The changed attitude of people found resonance in the voice of various public action groups. It was further reflected in the government's actions which were sometimes in the form of legislations. Simultaneously, certain leading businesses and brands start initiating changes to fulfill 'the new social contract' for green business as a response to the environment. This was not mere compliance. We can look at the tables given (Table 1, Table 2, Table 3, Table 4, Table 5, and Table 6).

The eighties were to some extent an ambiguous time for the development of environmentalism. On the one hand, with the Reagan administration in place, several ecological policies were retracted. This step backward was due to President Reagan's political attitude towards a free economy. In his opinion environmental regulations that posed obstacles to business conduction were harming a healthy economy. On the other hand, a number of catastrophic

environmental events generated an international public uproar as people all around the globe started to realize that every environmental problem bore not only theoretical but also personal implications. Disasters such as the escape of toxic gas at Bhopal, India in 1984, the enormous chemical spill in the River Rhine from Sandoz chemical plant in Switzerland in 1986, the diffusion of radioactive material from an accident at a nuclear reactor in Chernobyl, Russia in the same year and the rupture of the oil tanker Exxon Valdez in 1989 made people realize once again how important a balanced environment and hence its protection and preservation is (Caldwell, 1991). On top of that, Caldwell (p.48) maintains that "by the end of the 1980s, global warming and climate change had become the world's most publicized environmental issue" as the public increasingly understood the destructive repercussions of green house gas emissions.

Towards the **end of the 20th century**, with global warming resounded throughout the land, the environmental movement became more and more prominent. During the UN Earth Summit in Rio de Janeiro in 1992 the process for the Kyoto Protocol was started (Environmental History Timeline, n.d.). The United Nations Framework Convention on Climate Change stated "the Kyoto Protocol sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions". This treaty though is only one aspect of the modern green movement today. In addition to several international environmental agreements, the political arena was also shaped by the emergence of numerous ecological parties that have gained substantial influence over the traditional factions throughout the nineties (Capra and Spretnak, 1986) as for example the environmentally-focused party Bündnis 90/Die Grünen in Germany (Bündnis 90/Die Grünen, n.d.). Furthermore, activist groups like PETA and Earth First have gained considerable media coverage throughout the nineties (Web Ecoist, 2008). Yet, extremist fringe groups such as the Earth Liberation Front also harmed the image of diplomatic environmentalism during that time by employing economic sabotage and guerilla warfare (Barcott, 2002).

TABLE 1: ENVIRONMENTAL EVENTS AND REACTIONS DURING THE 1980S AND THE RESPONSE OF BUSINESS AND BRANDS

Environmental Events & Reactions	Governmental/NGO Actions & Reactions	Brands & Business Response	
 Union Carbide leaks Methyl iso-cyanide in Bhopal. Chernobyl disaster takes place in a reactor in Ukraine. Exxon Valdez spills 11 million gallons of crude oil in Alaska. 	 US Congress creates superfund to clean up hazardous waste sites. Moratorium on radio-active waste dumping at sea. US Congress enacts laws for safe disposal of nuclear waste. Vienna Convention for the protection of the ozone layer. 'Our Common Future' published. Montreal Protocol US Congress bans ocean dumping of sewage and industrial water. 	 Volkswagen begins testing of solar powered cars. ARDO Solar produces more than one megawatt of photovoltaic modules. DuPont begins selling substitutes for CFC Refrigerants. Organic Valley coop of organic farmers formed. 	

TABLE 2: ENVIRONMENTAL EVENTS AND REACTIONS FROM 1990 TO 1995 AND THE RESPONSE OF BUSINESS AND BRANDS

Environmental Events & Reactions Governmental/NGO Actions & Reactions		Brands & Business Response
Supertanker Braer spills 26 million gallons of	 20th anniversary of 'Earth Day'. 	'Apple' introduces first environmental
crude oil of the cost of Hebrides.	London Protocol: Clean Air Act Amendment	policy.
Contaminated water in Milwaukees sickens	passed.	 ISO 14000 standards established.
400,000 and kills more than 100.	• 76% of Americans call themselves	Clorox makes 'Fortune' list of top 10
Russian ship TNT27 dumps 900 tons of low level	'Environmentalists'.	companies in Environ Management.
radioactive waste in Sea of Japan.	Federal Organic Foods Production Act passed.	Nike launches 'Reuse-A-Shoe' program.
	'Earth Submit' held in Rio.	
	 Pollution Prevention Act and National 	
	Environmental Education Act passed in US.	
	 Environment Justice Act of 1992 passed. 	
	EPA launches Energy Star Program and	
	'Brownfields Program'	

TABLE 3: ENVIRONMENTAL EVENTS AND REACTIONS FROM 1995 TO 1999 AND THE RESPONSE OF BUSINESS AND BRANDS.

Environmental Events & Reactions	Governmental/NGO Actions & Reactions	Brands & Business Response	
Greenpeace activities occupy Shell	• 'Act Now, Apologize Later' by Adam Werbach is	Clorox honored as EPA's Waste	
company's North Sea offshore rig.	published	Wise Program Champion.	
	 EPA requires that home buyers and renters be informed 	Honda Insight and Toyota Pirus	
	about lead-based paint hazards.	introduced.	
	Kyoto Protocol adapted by US and 121 nations.		
	 New emissions standards for automobiles introduced. 		

TABLE 4: ENVIRONMENTAL EVENTS AND REACTIONS FROM 2000 TO 2003 AND THE RESPONSE OF BUSINESS AND BRANDS

Environmental Events & Reactions	Governmental/NGO Actions & Reactions	Brands & Business Response
 Over 300 million gallons of coal sludge is released when a Massey Energy Co. impoundment dam collapses in the Mississippi River. 'Science' publishes NASA survey of over 2000 glaciers shrinking Jury rules that Monsanto Chemical Company is responsible for polluting Anniston, Al with tons of toxic PCBs. Invasion of Iraq leads to widespread oilfield burning and other environmental problems. 	 E U bans leaded Gasoline World Summit on Sustainable Development in Johannesburg. 	 USDA certified organic labeling introduced. Sharp Corporation established a system to develop environmentally sustainable 'green factories' to improve its environmental performance

TABLE 5: ENVIRONMENTAL EVENTS AND REACTIONS FROM 2004 TO 2006 AND THE RESPONSE OF BUSINESS AND BRANDS

Environmental Events & Reactions	Governmental/NGO Actions & Reactions	Brands & Business Response
An 8.9 magnitude quake under the Indian Ocean triggers massive tsunamis that destroy villages and kills more than 140,000 people in a dozen countries Hurricane Katrina makes landfall in Louisiana. Earth's overall temperature has reached its highest level in 12,000 years according to research by NASA.	EPA requires cleaner fuels and engines for off-road diesel machinery. EPA launches CARE program to reduce toxic pollutants Kyoto Protocol officially goes into	GE launched its 'ecomagination' division to develop green technologies using the catch phrase 'green is green'.
World population reaches 6.5 billion.	force with a majority of worlds nations ratifying. • Former US vice president Al Gore releases "An Inconvenient Truth"	

TABLE 6: ENVIRONMENTAL EVENTS AND REACTIONS FROM 2007 TO 2010 AND THE RESPONSE OF BUSINESS AND BRANDS

Environmental Events & Reactions		Gov	ernmental/NGO Actions & Reactions	Bra	nds & Business Response
•	Cosco Busan a container ship spills 58,500	•	E.U. agrees to cut CO2 emissions by 20% by	•	Richard Branson sets a \$25 million prize for
	gallons of bunker fuel into the San		2020.		anyone able to devise a way to reduce the
	Francisco Bay.	•	Barack Obama wins US presidential race with		amount of greenhouse gases from the Earth's
•	UN Intergovernmental Panel on Climate		promises to reform governmental misconduct		atmosphere by one billion tons per year.
	Change (IPCC) releases report that		particularly with respect to environmental	•	Clorox Green Works products launched.
	estimated the cost of reversing the		laws.	•	Dell becomes a carbon neutral company by
	emissions of green house gases.	•	Group of Eight (G-8) industrialized nations		using offsets and other methods.
•	Live Earth concerts around the world raise		agree to cut greenhouse gas emissions by	•	Wal-Mart institutes sustainability labeling
	awareness of climate change.		2050.		system.
•	Al Gore and the IPCC win the Noble Peace	•	US Climate Action Partnership presents plan		·
	Prize.		to reduce US greenhouse gas emissions to		
•	Over a billion gallons of coal sludge spill out		20% of 2005 levels by 2050 through cap and		
	of a holding dam near Kinsport.		trading system.		

GOVERNMENT THE REGULATOR

Sometimes, the social license to operate or 'contract' has been an agreement between companies and government, the latter acting on behalf of the public. Some of these social contracts, such as those in highly regulated sectors like utilities or pharmaceuticals, are explicit, active, and central to the strategy and operation of the business. In these situations government is an essential actor, conducting a constant conversation with businesses about prices, product features or service terms, costs and the like; in turn, senior executives in these sectors devote considerable attention to embedding regulatory considerations into their business strategies, and managing their relationship with government agencies.

NGOS AS THE WATCHDOGS

Another, perhaps more important reason has been the rise of non-governmental organizations (NGOs) that are devoted to challenging and changing businesses practices with respect to the environment. They have the charters and the resources to persist in their mission over decades. For much of the past century, issue-oriented groups tended to be temporary, arising around a single piece of legislation, or correction of a particularly pressing social ill. Today, many NGOs are long-lived, robust, ever-active watchdogs and actors. They consistently step in, pressing business to change, even when current laws are being met and government's attention is on other issues.

NGOs have pressed government and business to elevate their commitment to sustainability. Taken as a planet, our economies have a long way to go before we change our behaviors, before society and businesses have sustainable practices that make little or no impact on the global ecosystem. This quest will go on for many years — and it will influence the relationship enterprises have with government, NGOs and society at large. It will require more from businesses to meet these challenges though most companies are not ready at present to deal with this reality.

THE CONSUMER FRANCHISE

The most powerful force that brings about a dimensional change in societal value creation is the power of consumer franchise. The word 'consumer' may include all market participants such as the customers, investors, employees, job seekers and the civil society. Strong multipliers emerge when enlightened consumers exercise a preference in favor of business that contributes significantly to environmental and social sustainability. Buy expressing a direct and distinct choice for the products and services of such enterprises, consumers unleash a multitude of positive actions and innovations. Sustainable business practices emerge as a definitive market differentiator given the large market gains accruing to such companies.

SUGGESTIONS

Many companies are unprepared and ill-equipped. Their corporate cultures, organizational capabilities and processes are not ready to support sustainability as central to their business. If firms don't change, they will stumble into unanticipated crises. It's time to recognize the shift, make changes and deliver on both the responsibilities and opportunities that sustainable business practices represent.

Why are they so ill-equipped? Over the last 20 or 30 years, most firms have, put sustainability issues into "the compliance bucket." They decided there was no advantage to be had from doing better on environmental issues than what the law required. Many corporations set up compliance organizations to meet established rules, and then went back to business as usual.

For vast majority of other firms, however, the social contract is implicit and inactive. Businesses do their best to follow the various rules set up by government regulators for everything from worker safety to payroll deductions. Senior management in these sectors does not look to have any strategy. Their approach is simply that of static compliance and some concern — defined as meeting the requirements of these rules. Once new rules have been understood, and their costs and consequences established, they push responsibility for these activities down in the organization.

This all has to change for both types of firms — and sustainability will have to be at the center of the shift. To overcome this challenge, business leaders will need to treat sustainability as a new dimension of their operating strategy and not as a drag on their effectiveness. They will have to end their fragmented treatment of sustainability issues by creating a high-level, centralized view of green business practices with associated responsibility and accountability to make measurable progress on articulated goals.

Because the nature of sustainability is never-ending, those goals will be a moving target. And because firms pursuing these goals will do so under a new social contract, they will be continuously monitored by people who are outside government, with motivation to inspect every aspect of your company's green record. For example, when Apple unveiled its MacBook computer notebooks, it took pains to shout they were green ("The world's greenest family of notebooks"). A website also helpfully explained what they mean by this in terms of packaging, materials and energy use and includes a statement about Apple's commitment to

sustainability. Though it all sounds wonderfully responsible, but, it could also be seen as a response in an ongoing dialogue with groups like Greenpeace, which had ranked Apple below average in its guide to green electronics.

CONCLUSION

There is a new social contract which brings new relationships and new demands and for business leaders to navigate around issues of sustainability and environmental resources. Thus organizations, being one of the most significant institutions beyond governments that can drive economic progress and social change, must be seen to be performing in this direction. One reason is the steady increase in the public's interest in, and willingness to act on, sustainability, both as citizens and as consumers. The other reasons are the initiatives by various public action groups and the government. We are entering a time when the question will be not whether you are pursuing such programs, but 'how much' you are doing for your business and the planet. Firms may be surprised by the new demands. Business leaders today must recognize that being in compliance is simply not enough. Until leaders of a firm can say they are engaged in a process of continuous sustainability improvement — akin to continuous improvement and investments in other parts of their business — they are out of step with our changing world. Such an integration of sustainability into business strategy will become compelling to more executives. Certain business leaders have shown the way.

REFERENCES

- 1. Barcott, B. (2002): From tree-hugger to terroist. The New York Times. Retrieved from http://query.nytimes.com/gst/fullpage.html?res= 9B07 E 0 DC153AF9 34A35757C0A9649C8B63&scp=1&sq=from%20tree-hugger%20to%20terrorist&st=cse
- 2. Caldwell, L. (1991), "Globalizing environmentalism: threshold of a new phase in international relations," *Society and Natural Resources*, 4 (3), 259-272.Dunlap R. (1991), "Trends in public opinion toward environmental issues 1965-1990," *Society and Natural Resources*, 4(3), 285-314.
- 3. lyer, E. (1994), "Environmental marketing: positive strategies for reaching the green consumer/green marketing: challenges and opportunities for the new marketing age," *Journal of Marketing*, 58(2), 127-129.
- 4. J. Ottman Consulting (2009): Retrieved from http://www.greenmarketing.com/ Macnaghten, P., & Urry, J. (1995). Towards a sociology of nature. *Sociology*, 29 (2), 203-220.
- 5. http://shop.greenresearch.com
- 6. www.greepeace.org/international/campaigns/toxi/electronics/ how the companies line up
- 7. Web Ecoist (2008). A brief history of the modern green movement in America. Retrieved from
- 8. Environmental History Timeline (n.d.): Retrieved November 18, 2008 from: http://www.environmentalhistory.org
- 9. Sierra Club (n.d.). Sierra Club history. Retrieved November 18, 2008 from: http://www.sierraclub.org/history
- 10. http://www.treehugger.com/files/2008/01clorox-green-works.php
- 11. Bündnis 90/Die Grünen (n.d.): Retrieved December 4, 2008 from http://www.gruene.de/cms/default/rubrik/0/3.html
- 12. http://www.greenresearch.com/2012/05/24/work-with-evolution-not-against-it-to-craft-green-messages/
- 13. http://www.landor.com/2012/05/24/thehistorialenvironment
- 14. http://www.greenbiz.com/blog/2014/06/02engaging-consumers-sustainability-soial-media



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 tosupply your critical comments and suggestions about the material published in this issue as well as on the journal as a whole, on our E-mailinfoijrcm@gmail.com for further improvements in the interest of research.

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

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

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-

Co-ordinator

DISCLAIMER

The information and opinions presented in the Journal reflect the views of the authors and not of the Journal or its Editorial Board or the Publishers/Editors. Publication does not constitute endorsement by the journal. Neither the Journal nor its publishers/Editors/Editorial Board nor anyone else involved in creating, producing or delivering the journal or the materials contained therein, assumes any liability or responsibility for the accuracy, completeness, or usefulness of any information provided in the journal, nor shall they be liable for any direct, indirect, incidental, special, consequential or punitive damages arising out of the use of information/material contained in the journal. The journal, 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.







