

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT

IJR
CM



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

Indexed & Listed at:

Ulrich's Periodicals Directory ©, ProQuest, U.S.A., EBSCO Publishing, U.S.A., Cabell's Directories of Publishing Opportunities, U.S.A.

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

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 3130 Cities in 166 countries/territories are visiting our journal on regular basis.

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

<http://ijrcm.org.in/>

CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	SOCIAL POWER OF WOMEN THROUGH SELF HELP GROUPS IN THE SOCIETY: A STUDY THROUGH NGO'S IN KARNATAKA <i>DR. MUNIVENKATAPPA, DR. LAKHSMIPATHI. C.G & T. NARASIMHAIAH</i>	1
2.	THE INCIDENCE OF FRAUD POST SARBANES OXLEY ACT: A REALITY CHECK <i>DR. P. N. SAKSENA</i>	6
3.	THE IMPACT OF EMOTIONALLY INTELLIGENT INDIVIDUALS, WORK TEAMS AND MANAGERS ON ORGANISATIONAL EFFECTIVENESS <i>DR. SANJAY PANDEY & ARCHANA AGRAWAL</i>	10
4.	STUDY OF CHALLENGES INVOLVED IN CLOUD COMPUTING FOR LIBRARIES <i>DR. SHUBHANGI BHATAMBREKAR & PALLAVI BULAKH</i>	18
5.	IMPACT OF INSTITUTIONAL FINANCE ON MSME <i>DR. J. MARY SUGANTHI BAI</i>	20
6.	HEALTH AND NUTRITIONAL STATUS OF CHILDREN AMONG EMIGRANT HOUSEHOLDS IN KERALA <i>DR. SHYLAJA L.</i>	25
7.	A STUDY ON ORGANIZATIONAL CULTURE AND CLIMATE WITH SPECIAL REFERENCE TO HVF, AVADI <i>K. RAVISHANKAR</i>	31
8.	A STUDY OF TREND ANALYSIS OF SPOT AND FUTURE PRICES OF AGRICULTURAL COMMODITY GUARGUM <i>RAKHI ARORA & DR.BHUPENDRA SINGH HADA</i>	38
9.	CSR AND EMPLOYEE'S ORGANIZATIONAL COMMITMENT: A STUDY OF INDIAN FINANCIAL INDUSTRY <i>AMOGH TALAN</i>	42
10.	EFFECTIVENESS OF THE FINANCIAL INCLUSION INITIATIVES IN INDIA <i>SEEMA</i>	45
11.	FOREIGN DIRECT INVESTMENT IN INDIA <i>ARUNA SHARMA & CHANDNI DUGGAL</i>	48
12.	AN EMPIRICAL STUDY ON CONSTRUCTION OF OPTIMUM PORTFOLIO USING HARRY MARKOWITZ MODEL: A CASE STUDY WITH SPECIAL REFERENCE TO S&P CNX NIFTY COMPANIES <i>DR. JEELAN BASHA.V & KHADRIYA BEGUM.N</i>	57
13.	ASSESSING THE IMPLEMENTATION PRACTICES OF URBAN LAND LEASE POLICY ON URBAN TOWNS OF TIGRAI NATIONAL REGIONAL STATE, ETHIOPIA <i>YIBRAH HAGOS GEBRESILASSIE</i>	67
14.	AN ANALYSIS ON THE BOTTLENECKS AFFECTING TRANSPORT SECTOR ESPECIALLY WEIGHBRIDGES IN KENYA <i>JACQUELINE SHEILA OMayio & DR. OTIENO MOSES</i>	71
15.	SUPPLY CHAIN MANAGEMENT FOR AGRICULTURAL PRODUCTS <i>S.YAZHINI</i>	76
	REQUEST FOR FEEDBACK & DISCLAIMER	79

CHIEF PATRON

PROF. K. K. AGGARWAL

Chairman, Malaviya National Institute of Technology, Jaipur

(An institute of National Importance & fully funded by Ministry of Human Resource Development, Government of India)

Chancellor, K. R. Mangalam University, Gurgaon

Chancellor, Lingaya's University, Faridabad

Founder Vice-Chancellor (1998-2008), Guru Gobind Singh Indraprastha University, Delhi

Ex. Pro Vice-Chancellor, Guru Jambheshwar University, Hisar

FOUNDER PATRON

LATE SH. RAM BHAJAN AGGARWAL

Former State Minister for Home & Tourism, Government of Haryana

Former Vice-President, Dadri Education Society, Charkhi Dadri

Former President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

CO-ORDINATOR

DR. SAMBHAV GARG

Faculty, Shree Ram Institute of Business & Management, Urjani

ADVISORS

DR. PRIYA RANJAN TRIVEDI

Chancellor, The Global Open University, Nagaland

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.), Maharaja Agrasen College, Jagadhri

EDITOR

PROF. R. K. SHARMA

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

EDITORIAL ADVISORY BOARD

DR. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

PROF. PARVEEN KUMAR

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

PROF. H. R. SHARMA

Director, Chhatrapati 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), Guru Gobind Singh I. P. University, Delhi

PROF. R. K. CHOUDHARY

Director, Asia Pacific Institute of Information Technology, Panipat

DR. ASHWANI KUSH

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

DR. BHARAT BHUSHAN

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

DR. MOHENDER KUMAR GUPTA

Associate Professor, P.J.L.N. Government College, Faridabad

DR. SAMBHAV GARG

Faculty, Shree Ram Institute of Business & Management, Urjani

DR. SHIVAKUMAR DEENE

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

DR. BHAVET

Faculty, Shree Ram Institute of Business & Management, 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, Aligarh Muslim University, Aligarh, U.P.

ASHISH CHOPRA

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

TECHNICAL ADVISOR**AMITA**

Faculty, Government M. S., Mohali

FINANCIAL ADVISORS**DICKIN GOYAL**

Advocate & Tax Adviser, Panchkula

NEENA

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

LEGAL ADVISORS**JITENDER S. CHAHAL**

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

CHANDER BHUSHAN SHARMA

Advocate & Consultant, District Courts, Yamunanagar at Jagadhri

SUPERINTENDENT**SURENDER KUMAR POONIA**

CALL FOR MANUSCRIPTS

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

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

GUIDELINES FOR SUBMISSION OF MANUSCRIPT

1. **COVERING LETTER FOR SUBMISSION:**

DATED: _____

THE EDITOR
IJRCM

Subject: SUBMISSION OF MANUSCRIPT IN THE AREA OF

(e.g. Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)

DEAR SIR/MADAM

Please find my submission of manuscript entitled '_____ ' for possible publication in your journals.

I hereby affirm that the contents of this manuscript are original. Furthermore, it has neither been published elsewhere in any language fully or partly, nor is it under review for publication elsewhere.

I affirm that all the author (s) have seen and agreed to the submitted version of the manuscript and their inclusion of name (s) as co-author (s).

Also, if my/our manuscript is accepted, I/We agree to comply with the formalities as given on the website of the journal & you are free to publish our contribution in any of your journals.

NAME OF CORRESPONDING AUTHOR:

Designation:

Affiliation with full address, contact numbers & Pin Code:

Residential address with Pin Code:

Mobile Number (s):

Landline Number (s):

E-mail Address:

Alternate E-mail Address:

NOTES:

- a) The whole manuscript is required to be in **ONE MS WORD FILE** only (pdf. version is liable to be rejected without any consideration), which will start from the covering letter, inside the manuscript.
- b) The sender is required to mention the following in the **SUBJECT COLUMN** of the mail:
New Manuscript for Review in the area of (Finance/Marketing/HRM/General Management/Economics/Psychology/Law/Computer/IT/Engineering/Mathematics/other, please specify)
- c) There is no need to give any text in the body of mail, except the cases where the author wishes to give any specific message w.r.t. to the manuscript.
- d) The total size of the file containing the manuscript is required to be below **500 KB**.
- e) Abstract alone will not be considered for review, and the author is required to submit the complete manuscript in the first instance.
- f) The journal gives acknowledgement w.r.t. the receipt of every email and in case of non-receipt of acknowledgment from the journal, w.r.t. the submission of manuscript, within two days of submission, the corresponding author is required to demand for the same by sending separate mail to the journal.

2. **MANUSCRIPT TITLE:** The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.

3. **AUTHOR NAME (S) & AFFILIATIONS:** The author (s) **full name, designation, affiliation (s), address, mobile/landline numbers**, and **email/alternate email address** should be in italic & 11-point Calibri Font. It must be centered underneath the title.

4. **ABSTRACT:** Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain the background, aims, methods, results & conclusion in a single para. Abbreviations must be mentioned in full.

5. **KEYWORDS:** Abstract must be followed by a list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.
6. **MANUSCRIPT:** Manuscript must be in **BRITISH ENGLISH** prepared on a standard A4 size **PORTRAIT SETTING PAPER**. It must be prepared on a single space and single column with 1" margin set for top, bottom, left and right. It should be typed in 8 point Calibri Font with page numbers at the bottom and centre of every page. It should be free from grammatical, spelling and punctuation errors and must be thoroughly edited.
7. **HEADINGS:** All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.
8. **SUB-HEADINGS:** All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.
9. **MAIN TEXT:** The main text should follow the following sequence:

INTRODUCTION

REVIEW OF LITERATURE

NEED/IMPORTANCE OF THE STUDY

STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

SCOPE FOR FURTHER RESEARCH

ACKNOWLEDGMENTS

REFERENCES

APPENDIX/ANNEXURE

It should be in a 8 point Calibri Font, single spaced and justified. The manuscript should preferably not exceed **5000 WORDS**.

10. **FIGURES & TABLES:** These should be simple, crystal clear, centered, separately numbered & self explained, and **titles must be above the table/figure. Sources of data should be mentioned below the table/figure.** It should be ensured that the tables/figures are referred to from the main text.
11. **EQUATIONS:** These should be consecutively numbered in parentheses, horizontally centered with equation number placed at the right.
12. **REFERENCES:** The list of all references should be alphabetically arranged. The author (s) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow **Harvard Style of Referencing**. The author (s) are supposed to follow the references as per the following:
 - All works cited in the text (including sources for tables and figures) should be listed alphabetically.
 - Use (ed.) for one editor, and (ed.s) for multiple editors.
 - When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
 - Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
 - The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
 - For titles in a language other than English, provide an English translation in parentheses.
 - The location of endnotes within the text should be indicated by superscript numbers.

PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

BOOKS

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

CONTRIBUTIONS TO BOOKS

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

JOURNAL AND OTHER ARTICLES

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

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

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

ONLINE RESOURCES

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

WEBSITES

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

AN ANALYSIS ON THE BOTTLENECKS AFFECTING TRANSPORT SECTOR ESPECIALLY WEIGHBRIDGES IN KENYA

JACQUELINE SHEILA OMAIYO
ASST. SUPERINTENDENT (IMPORTS/EXPORTS)-CONVENTIONAL CARGO OPERATIONS
KENYA PORTS AUTHORITY
MOMBASA

DR. OTIENO MOSES
LECTURER
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
DEPARTMENT OF EXTRA MURAL STUDIES
UNIVERSITY OF NAIROBI
NAIROBI

ABSTRACT

The study sought to investigate the bottlenecks affecting transport sector especially weighbridges. To identify measures and mechanisms necessary to maximize throughput, achieve a smooth cost effective and balanced flow of cargo at the weighbridge stations, to enhance effectiveness and efficiency along the Northern corridor. Strategies have been put in place through various stakeholders consultation with the aim of having a common stand on factors affecting the transport sector in Kenyan and the Northern corridor route and to view organizational policies that need to be employed in managing the current Weighbridges in Kenya to be able to attain an acceptable level of services to all stakeholders. The methodology involved Observation and interviewing of Key Senior Officers (5) at the Weighbridges, (2) at Mariakani, (2) at Athi River, (1) at Mtwapa and (10) Truck Drivers along the Northern Corridor Route and (5) Truck owners in Mombasa, the study also link the views with published and unpublished documentation available in the secondary data. Given the interest shown to the study by trucks owners and truck drivers, a lot of information was shared however there was little cooperation from Weighbridge Operations on sharing information. The findings shows that Government have a lot to do in terms of policies guidance and the need to invest in road and it accessories, cooperation from the mandated agencies is paramount towards and success to be achieved in the sector. The study thus discloses that there is a lot of interest by stakeholder towards any action done by Researcher or Government to understand the challenges facing the transport sector in Kenya.

KEYWORDS

Bottlenecks, Northern Corridor route, Weighbridge.

1.0 INTRODUCTION

The issues affecting the efficiency and effectiveness at the transport sector, and by extension, the road transport have been discussed in many fora and analyzed in many studies. The objective has been continuously to facilitate a conducive trade and logistics environment in Kenya and the other member states.

Continued delays at the weighbridges' has resulted in enormous losses to the private sector in the country, while affecting Kenya's dream of transforming into a regional business hub in Africa. Delays are not related to weighing operations only but other processes at and around the weighbridges such as escort goods.

2.0 LITERATURE REVIEW

2.1 KENYA NATIONAL HIGHWAYS AUTHORITY

Kenya National Highways Authority (KeNHA), a state corporation established under the ministry of roads and mandated to manage, develop, rehabilitate and maintain national roads. KeNHA is responsible for ensuring adherence to rules and guidelines on axle load control as prescribed under the traffic act. The ministry of roads has the overall responsibility for Kenya's Axle Load Control policy as provided in the Traffic Act. There are seven weighbridges operated along the main northern corridor route between Mombasa and Malaba in Kenya. These are Mariakani (30km from Mombasa port), Athi river, (just outside Nairobi) Mai Mahiu, Gilgil, Eldoret, Bungoma and Amagoro (Malaba –Uganda border). Of the seven weighbridges along the Northern corridor, three are being managed by private sector. Mariakani and Gilgil are managed by SGS Kenya Limited, while the Athi River weighbridge is managed by Avery Kenya Limited. The Mariakani weighbridge is the only one along the corridor which is equipped with all the three types of weighbridges while all the rest are equipped with the single axle weigher. It is indicated that the weighbridges' at mariakani and Gilgil are ISO certified, with all the procedures and quality manual on the policy and operational aspects clearly documented for implementation.

Mariakani and Athi River weighbridges in Kenya are being upgraded to full traffic control centres; this includes installation of weigh in motion facilities on both sides of the road.

2.2 THE NORTHERN CORRIDOR TRANSPORT AUTHORITY

The Governments in whose countries the core Northern Corridor road network traverses (Kenya, Uganda, Rwanda and Burundi), have established dedicated Road Funds in order to ensure availability of finance to ensure adequate and timely routine and periodic maintenance. However, there are still gaps in funding due to large demand, which compete for financing from the Road Funds. In respect of overloading, Kenya and Uganda the Highway Authorities are responsible for weighbridges. The exception is the Mariakani weighbridge (near Mombasa) in Kenya, which has been contracted to a private operator. If contraventions are detected, prosecution are instituted (there is no option to pay admission of guilt fines and vehicles are impounded until a court has issued judgment). There have been complaints of ineffectiveness of the system to curb overloading and the soliciting of "unofficial" payments at the weighbridges. However, improvements are being made or are planned. (Nathan Associates Inc. Arlington, Virginia, USA)

2.3 ROAD AND BORDER TRANSIT TIME

The driving time is reflective of distance as destinations with longer distances have longer driving time. However, shorter destinations may take longer time if roads are in poor conditions, less facilitation of transport at border points, and more taken at weighbridges and road blocks. The routes on Beira and Nacala corridors seem to be affected by all these factors and therefore driving time is not consistent with increases in distance (Murithi A, Samuel M)

The representative from the Ministry of Roads, Engineer P C Kilimo While addressing one of the Transport stakeholders meeting acknowledged the progress made at the EAC level with respect to the harmonization of GVWs, emphasizing that the Ministry considered the issue of the railway and Port of Mombasa as critical areas for Kenyans development. He noted that it was important for the stakeholders to consider bold steps to ensure that the port continues to be competitive, including the whole issue of port 'commercialization' i.e. privatization. This would make it improve in service delivery and allow it to compete with other world class facilities.

2.4 QUOTED COMMENTS DURING ROAD TRANSPORT ASSOCIATION STAKEHOLDERS WORKSHOP

".....The problem at the Port is the conflict of interests between different Government agencies. There is need for a single trade facilitation agency to provide the required leadership....." Mr. Boaz Makomere, KIFWA, during the Stakeholders Workshop, 7th December 2011

".....The people who overload roads are not KeNHA, but Private sector, maintaining these roads cost money, which is not easy to come by....." Eng Samuel Ogege, KeNHA during the Stakeholders Workshop, 7th December 2011

".....to blame the current state of the roads on overloading alone is to stretch the truth. There are other factors, especially the quality of the road works....." Ms. Merianne Singo, Road Transport Association, Stakeholders Workshop, 7th December 2011

".....the Ministry considers the issue of the railway and Port of Mombasa as critical areas for Kenya's development....." Eng. Kilimo, Ministry of Roads, Stakeholders Workshop, 7th December 2011

".....the Government has no business doing business, the government should let the private sector engage in business while focusing on regulation....." Mr. Edwins Mukabanah, KEPSA, Stakeholders Workshop, 7th December 2011

3. IMPORTANCE OF STUDY

The study will help in establishing the bottlenecks affecting transport sector especially weighbridges and hence provide solutions on how to improve efficiency along the weighbridges.

4. STATEMENT OF THE PROBLEM

There have been several challenges affecting transport sector in Kenya and the region. Some of these challenges have resulted to inefficiencies by several government agencies leading to loss of business to competitors such as central corridor, Tanzania etc.

5. OBJECTIVES

The objectives of the study are to investigate the bottlenecks affecting transport sector especially weighbridges. To identify measures and mechanisms necessary to maximize throughput, achieve a smooth cost effective and balanced flow of cargo at the weighbridge stations.

6. HYPOTHESES

One of the leading factors affecting the transport sector according to stakeholders in Kenya is the weighbridge among others, weighbridge in Kenya contribute to larger portions of delay of trucks loaded with cargo, destined to interior part of Kenya and transit countries. This leads to poor truck turnaround hence leading to backlog of containers, congestion and delay of raw materials to industries in the region. The study will have gone to details to find out whether these factors which contribute to slow movement of cargo are the weighbridges.

5. RESEARCH METHODOLOGY

The research methodology applied was interview with a predetermined questionnaire, the response was as follows:

5.1 OFFICERS IN WEIGHBRIDGE OPERATIONS

NO.	TITLE	WEIGHBRIDGE	REMARKS
1.	Operations officer in charge	Mariakani	Positive feedback
2.	Operations officer (equipments)	Athi River	Positive feedback
3.	Assistant officer (weighbridge)	Mariakani	Positive feedback
4.	Supervisor of weighbridge (mtwapa)	Athi River	Positive feedback
5.	Ministry officer of weighbridges	Ministry of Roads	Positive feedback

5.2 TRUCK DRIVERS

NO.	DESTINATION	REMARKS
5	Local drivers	Positive feedback
5	Transit drivers	Positive feedback

5.3 TRUCK OWNERS

NO.	NAME OF COMPANY	REMARKS
1.	Shiva transporters	Positive feedback
2.	Ocean transporters	Positive feedback
3.	Mombasa trucks	Positive feedback
4.	Hakika hauliers	Positive feedback
5.	Interplanet carriers	Positive feedback

Other methods applied from publishers and non-published quotes from workshops and seminars by different stakeholders on subjects relating to transport in the region.

6 RESULTS AND DISCUSSION**6.1 ROAD FUNDS**

The Governments in whose countries the core Northern Corridor road network traverses (Kenya, Uganda, Rwanda and Burundi), have established dedicated Road Funds in order to ensure availability of finance to ensure adequate and timely routine and periodic maintenance. However, there are still gaps in funding due to large demand, which compete for financing from the Road Funds. In respect of overloading, Kenya and Uganda the Highway Authorities are responsible for weighbridges. The exception is the Mariakani weighbridge (near Mombasa) in Kenya, which has been contracted to a private operator. If contraventions are detected, prosecution are instituted (there is no option to pay admission of guilt fines and vehicles are impounded until a court has issued judgment). There have been complaints of ineffectiveness of the system to curb overloading and the soliciting of "unofficial" payments at the weighbridges. However, improvements are being made or are planned.

6.2 FRUSTRATION IN TRANSPORT SECTOR

An Interview with truck drivers revealed shows that at some weighbridge station, they are forced to wait until midnight the following day before proceeding with their journey after clearance affecting their truck turnaround, they spend between Sh15, 000 and Sh25, 000 from Mombasa to Busia. The money is to ensure easy passage through the weighbridges," a dejected Mr. Abdi, driver of a prime mover truck is a case in point.

On occasions senior police officers remain on duty beyond 11pm, and are told drivers work with loaders and pick-up owners to offload and ferry some goods to lighten the load, after which the lorries drive through the weighbridge, to be reloaded two or three kilometers ahead, it costs between Sh3, 000 to Sh4, 000 to have a pick-up a trucker through the weighbridge. However, for some drivers, they dread this tactic.

Mr. Clyde Mutotso, partner at Clyde & Associates, says about 50 per cent of total import freight costs are due to port expenses and for fighting transport hurdles. He quotes a study done by CPCS Transcom that states that truck drivers pay between 56,000 to Sh75, 000 to corrupt officers from Mombasa to Kigali in Rwanda.

It costs about Sh130, 000 to move a container from Dubai to Mombasa, but the cost doubles between Mombasa and Kampala.

6.3 IMPROVED VEHICLE OVERLOAD CONTROL SYSTEM

There are some areas which need improve on the system such as training assistance to assist member states to align legislation on vehicle limits with regional standards and to pass new regulations providing for administrative penalties. Outreach activities to sensitize the trucking industry to the implications of the new rules are useful to ensure smooth implementation of the administrative system and to secure the co-operation of industry – from an early stage – to improve compliance levels and training of weighbridge staff and law enforcement agencies.

6.4 ROAD MAINTENANCE IN KENYA

Roads are managed by Road Agencies/Authorities and maintained on contract for specific works defined such as routine maintenance; re-sealing/periodic maintenance. Finance is from Road funds and Government budget allocation. When there is no finance, maintenance is postponed, thus accumulating deferred maintenance and accelerated road deterioration. Overload control is managed by the Road Authorities in Kenya (KenHA) and Uganda via weighbridges. Rwanda and Burundi are in the process of establishing weighbridges at and similar vehicle overload control systems.

6.5 TRADE AND TRANSPORT FACILITATION

Several investments in the road sector to reduce the travel time and vehicle operating costs. Nevertheless, time gained through road construction can easily be erased by a proliferation of customs and police stops, both formal and informal, and even over-frequent use of weighbridges to protect the roads. Some interventions are designed to create a regional harmonized transit regime to realize the full trade benefits of the infrastructure investments.

Despite the agreement reached in 2008, there has been little progress by Member States in the region in amending their legislation to adopt the harmonized regional standards. Moreover, only Tanzania has introduced the agreed system of administrative penalties based on the recovery of actual economic costs of road damage. Rwanda and Burundi have no existing weighbridges infrastructure and are in the process of establishing them at the border points.

Experience elsewhere has highlighted that the efficacy of overload controls is improved when the trucking industry is fully cognizant of the content of the new rules and their application. Outreach activities to sensitize the trucking industry to the implications of the new rules are useful to ensure smooth implementation of the administrative system and to secure the co-operation of industry – from an early stage – to improve compliance levels. At the same time, training of weighbridge staff and law enforcement officers in the implementation of the new rules is also needed and to hold practical training sessions with weighbridge personnel and enforcement personnel.

6.6 CRITICAL FACTORS FOR SUCCESS

It would be critical that the relevant agencies, particularly the police, weighbridge authority and local governments, are committed to maximum free movement on the corridors. Without

An assessment on the performance of the Northern Corridor is affected by numerous operational, policy, procedural, and administrative issues. These are summarized below and strategies for addressing these causes of inefficiency are presented in Kenya, vehicles licensed for transit cannot carry domestic cargo and must use prescribed transit routes. This has the effect of many return trips being empty. Similarly in Tanzania, the Revenue Authority licenses trucks for transit or domestic with the same effect.

Domestic road transport policies in all states are aimed at deregulating market access, which has had some positive effects, but the lack of qualitative regulation has also had several undesirable consequences. These include low entry barriers leading to cut throat competition, low safety levels and poor service quality.

Existing overloading control strategy is aimed at achieving 100 percent inspections of all commercial vehicles. There is no targeted risk management approach and no incentive to encourage truckers to self-regulate. The high intensity of checking increases journey times and provides an added incentive for corruption. Differences in national limits complicate cross-border operations. There is also no regional consistency in terms of the frequency of checks as some states (Burundi, Rwanda) have no existing weighbridge infrastructure.

7. ANALYSIS AND FINDINGS

7.1 MOBILE WEIGHBRIDGE

Mobile weighbridges are quite new in Kenya. They are mostly used by the Road Authorities in Kenya (KenHA) and some companies used for personal use example a freight transport company using it to check their vehicles' mass before it goes on its journey.



7.2 PORTABLE WEIGHING EQUIPMENT (PWE)

PWE is made up of weigh pad scales which are able to be placed on a flat road surface. The load of the vehicle is obtained by summing up the axles' mass as each axle passes over the sensors. A number of different types of technology can be used as the weighing mechanisms such as: A spring can be used, bringing it back to its initial position by turning a crank. The resolutions correspond with the load measured. Hydraulic pads can also be used. They use pressure variable of a liquid contained in a coil to help measure the load.



7.3 WEIGH-IN-MOTION (WIM) SCALES

Weigh-in-motion scales are installed in national highways common in the Kenyan roads. This is done to provide traffic loading information, strategic planning, pavement design and for law enforcement.



7.4 AWARENESS BY THE BUSINESS COMMUNITY

According to Trade and Logistics Consultant, Mr. Gordon J Anyango, with regard to the Weigh bridges in Kenya play an important role within the broader regional framework of the Northern Corridor; there are seven (7) fixed weighbridges between Mombasa and Malaba. Three have been licensed to private sector operators. Mariakani and Athi River are busiest with delays of between 3-4 hours compared to others at 1-2 hours. Lack of awareness by the business community, more particularly transporters, on the consequences of overloading is a problem; There are two main reasons for non-compliant cargo loads (Deliberate overloading of trucks by transporters and overloading at the Port of Mombasa despite smart cranes); Overloading and corruption are related, with transporters keen on maximizing profits, being ready to bribe their way at the weigh bridges. Over 90% of trucks along the weigh bridges are however compliant. Poor law enforcement is another area of concern.

7.5 KEY EMERGING ISSUES

There were a total of 13 weigh bridges in Kenya, with 12 being fully operational. 3 of these are under private managers. The desire of KeNHA is to privatize all the weighbridges. With regard to improvements at the weighbridges, KeNHA has begun installing new scales to address the problems of discrepancies in weights; installing automated systems; unless there is a breakdown, tickets are not manually generated. Also Public Display Units – been installed conspicuously, driver can see the whole weighing procedures. Improving the facilities ongoing – Mtwapa, MaaiMahiu, Gilgil- 2 way bridges will be ultra –modern (*rolling out contracts for Mariakani and Athi River*). When funds allow, this will be replicated at Webuye, Gilgil and Eldoret. KeNHA has installed weigh in motion scales at Athi River, Mariakani, in process of installing this at MaaiMahiu and Gilgil. Compliant trucks will move through green channel without any stopping. Installing and commissioning of 22 airbags for multi decks scale easing congestion at station. Currently, the installed CCTV cameras are not able to pick the number plates; hence players are still manipulating process. Soon cameras will pick all data for all the trucks. Construction of an additional lane at Mariakani – 80 million shillings; to construct auxiliary lane approach to weigh bridge station and installing new static scales; Fencing of the weighbridge station to preclude idlers and construction of lay by's at Malaba, Mai Mahiu and Busia and the establishment of weighbridge Oversight Committee. With regard to corruption, approximately 30 staff have been fired at Athi River alone, during the joint sting operations, conducted in partnership with the Ethics and Anti-Corruption Commission. Cooperation with other partners for vehicles not being kept at weighbridges unnecessarily. KeNHA working with transporters around Nairobi to encourage self regulation.

8. RECOMMENDATIONS

The government of Kenya to consider under their Road Transport Board to have a representative of Transport Sector or a nominee from Kenya Transport association (KTA). There's a need for the government of Kenya to standardize impunitive measures. There is need for the government to improve on road signs.

9. CONCLUSION

The hurdles faced by the traders using the Northern Corridor to convey their goods in transit extend beyond Malaba. For implementing any agreed policy requires the cooperation of the different agencies both public and private.

Notwithstanding the fact that the problem of long queues at weighbridges, the major cause is associated with lack of training both to the truck drivers, machine operators and regulatory agencies on the importance of their contribution in the performance in the transport sector. Furthermore, the process is subject to risk exposures such as customs business system failures, lack of agency fees by the drivers to enlist the services of customs/clearing agents and failure by all parties involved in the clearance process to work 24/7. Further it is recommended that more studies need to be done with a view to establish the challenges leading to Non Performance of 24/7 by state agencies whereas there is directive by the Government to implement it.

10. SCOPE FOR FURTHER RESEARCH

In future there is a need to research using other parameters which have not been used in this study such as government officials in Kenya, Uganda, Rwanda and Burundi.

11. ACKNOWLEDGEMENT

First, I thank God for the good health and all the divine connections he has provided for me. Second, I thank my husband and our children (Emmanuel and Merrillynn) for their love and support. I would also like to thank my lecturers at the university of Nairobi and Jomo Kenyatta University of Agriculture and Technology, for adding value and meaning to my life.

REFERENCES

1. Antony M, Samuel M (2012); *Logistics Review of the Beira and Nacala Corridors*: AECOM International Development and Abt Associates Inc. USA
2. Gordon J Anyango (2001) *Bottlenecks at the Port of Mombasa and the Weighbridges*; Nyali International Beach Hotel, Mombasa
4. Nathan Associates Inc. (2011), *Corridor Diagnostic study of the Northern and Central Corridor of East Africa*, Arlington, Virginia, USA
5. Mark S (2012) *South Sudan Corridor Diagnostic Study and Action Plan*; Nathan Associates Inc. USA
6. Tshekisho V L (2012) *Weighing of Trucks in Road Traffic*; University of Pardubice Jan Perner Transport Faculty (Unpublished Thesis)
7. East Africa Standard (August 6, 2013); *How overloaded trucks beat weighbridge rules in the dead of night*.

REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Computer Application & Management (IJRCM) acknowledges & appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to request you to supply your critical comments and suggestions about the material published in this issue as well as on the journal as a whole, on our E-mail infoijrcm@gmail.com for further improvements in the interest of research.

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

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

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-

Co-ordinator

DISCLAIMER

The information and opinions presented in the Journal reflect the views of the authors and not of the Journal or its Editorial Board or the Publishers/Editors. Publication does not constitute endorsement by the journal. Neither the Journal nor its publishers/Editors/Editorial Board nor anyone else involved in creating, producing or delivering the journal or the materials contained therein, assumes any liability or responsibility for the accuracy, completeness, or usefulness of any information provided in the journal, nor shall they be liable for any direct, indirect, incidental, special, consequential or punitive damages arising out of the use of information/material contained in the journal. The journal, nor its publishers/Editors/Editorial Board, nor any other party involved in the preparation of material contained in the journal represents or warrants that the information contained herein is in every respect accurate or complete, and they are not responsible for any errors or omissions or for the results obtained from the use of such material. Readers are encouraged to confirm the information contained herein with other sources. The responsibility of the contents and the opinions expressed in this journal is exclusively of the author (s) concerned.

ABOUT THE JOURNAL

In this age of Commerce, Economics, Computer, I.T. & Management and cut throat competition, a group of intellectuals felt the need to have some platform, where young and budding managers and academicians could express their views and discuss the problems among their peers. This journal was conceived with this noble intention in view. This journal has been introduced to give an opportunity for expressing refined and innovative ideas in this field. It is our humble endeavour to provide a springboard to the upcoming specialists and give a chance to know about the latest in the sphere of research and knowledge. We have taken a small step and we hope that with the active co-operation of like-minded scholars, we shall be able to serve the society with our humble efforts.

Our Other Journals

