

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, IT & MANAGEMENT

I
J
R
C
M



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

Indexed & Listed at:

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

Open J-Gate, India [link of the same is duly available at Inlibnet 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 3480 Cities in 174 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.	IMPACT OF MOBILE MARKETING IN THE CURRENT INDIAN SCENARIO <i>DR. VINAYAK KHARE, DR. HARISH B. BAPAT & DR. VISHAL SONI</i>	1
2.	FARMER'S SUGGESTIONS TO IMPROVE THE TANK SYSTEMS PERFORMANCE WITH SPECIAL REFERENCE TO MADURAI DISTRICT <i>DR. M. A. RAJKUMAR & DR. P. KARTHIKEYAN</i>	4
3.	A COMPARATIVE STUDY OF PROBLEMS FACED BY CONSUMERS WHILE USING SERVICES OF INDIA POST AND PRIVATE COURIER SERVICE IN WESTERN MUMBAI <i>MEHUL CHHATBAR & DR. CHITRA NATARAJAN</i>	9
4.	POLICY OF NATIONALISM GUIDANCE THROUGH IN TRADITIONAL MARKET MANAGEMENT IN CENTRAL JAVA <i>DR. SRI SUWITRI</i>	14
5.	GREEN PURCHASING BEHAVIOUR OF YOUNG CONSUMERS IN THOOTHUKUDI <i>DR. K. MARIAMMAL & M.SHUNMUGAVALLI</i>	17
6.	A RESEARCH ON THE EFFICACY OF EMPLOYEE TRAINING IN MANUFACTURING COMPANY, PUNE <i>DR. MANISHA PUROHIT</i>	21
7.	MANAGEMENT LESSONS FROM DABBAWALA <i>B. SARUMATHI, B. SARANYA & A. ANITHA SUPRIYA JOSEPH</i>	24
8.	A STUDY ON THE FACTORS AFFECTING RFID ADOPTING INTENTION OF ONLINE SHOPPING LOGISTICS PROCESS: CASE OF TAIWAN ONLINE RETAIL BUSINESS <i>YU-BING, WANG</i>	29
9.	TRAINING AND DEVELOPING EMPLOYEES: METHODS AND EFFECTS <i>PAYAL CHATLY</i>	36
10.	EURO ZONE CRISIS: ITS GENESIS AND IMPLICATIONS ON INDIAN ECONOMY <i>DR. MADHUR M.MAHAJAN</i>	39
11.	EFFECT OF DIVIDEND ON SHARE'S VOLUME, SHARE'S TURNOVER AND SHARE'S TRADING WITH SPECIAL REFERENCE TO BANKING AND AUTO INDUSTRY: AN INDIAN PERSPECTIVE <i>DR. DEBASISH BISWAS & SAJJUL ISLAM</i>	46
12.	WOMEN ENTREPRENEURSHIP: PROBLEMS & PROSPECTS <i>PAYAL CHATLY</i>	51
13.	REVERSE INNOVATION AS A PERSUASIVE MARKETING TOOL <i>SONIA LOHIA & SACHIN LOHIA</i>	54
14.	CONTRIBUTION OF MICRO AND SMALL SCALE INDUSTRIES IN RURAL DEVELOPMENT: A CASE STUDY OF AJMER DIVISION (AJMER, BHILWARA, TONK AND NAGOUR DISTRICTS) <i>SHWETA SHARMA, DEEPALI SHARMA & S. L. CHOUDHARY</i>	57
15.	INTEGRATING INFORMATION AND COMMUNICATION TECHNOLOGY INTO THE GHANA EDUCATION HEAD OFFICES: AN EMPIRICAL EVIDENCE FROM GHANA <i>ELISHA D'ARCHIMEDES ARMAH</i>	69
	REQUEST FOR FEEDBACK & DISCLAIMER	75

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

AMITA

Faculty, Government M. S., Mohali

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. M. N. SHARMA

Chairman, M.B.A., Haryana College of Technology & Management, Kaithal

PROF. S. L. MAHANDRU

Principal (Retd.), Maharaja Agrasen College, Jagadhri

EDITOR

PROF. R. K. SHARMA

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

CO-EDITOR

DR. BHAVET

Faculty, Shree Ram Institute of Business & Management, Urjani

EDITORIAL ADVISORY BOARD

DR. RAJESH MODI

Faculty, Yanbu Industrial College, Kingdom of Saudi Arabia

PROF. SANJIV MITTAL

University School of Management Studies, Guru Gobind Singh I. P. University, Delhi

PROF. ANIL K. SAINI

Chairperson (CRC), Guru Gobind Singh I. P. University, Delhi

DR. SAMBHAVNA

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

DR. MOHENDER KUMAR GUPTA

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

DR. SHIVAKUMAR DEENE

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

ASSOCIATE EDITORS

PROF. NAWAB ALI KHAN

Department of Commerce, Aligarh Muslim University, Aligarh, U.P.

PROF. ABHAY BANSAL

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

PROF. A. SURYANARAYANA

Department of Business Management, Osmania University, Hyderabad

DR. SAMBHAV GARG

Faculty, Shree Ram Institute of Business & Management, Urjani

PROF. V. SELVAM

SSL, VIT University, Vellore

DR. PARDEEP AHLAWAT

Associate Professor, Institute of Management Studies & Research, Maharshi Dayanand University, Rohtak

DR. S. TABASSUM SULTANA

Associate Professor, Department of Business Management, Matrusri Institute of P.G. Studies, Hyderabad

SURJEET SINGH

Asst. Professor, Department of Computer Science, G. M. N. (P.G.) College, Ambala Cantt.

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>

INTEGRATING INFORMATION AND COMMUNICATION TECHNOLOGY INTO THE GHANA EDUCATION HEAD OFFICES: AN EMPIRICAL EVIDENCE FROM GHANA

ELISHA D'ARCHIMEDES ARMAH

LECTURER

DEPARTMENT OF MATHEMATICS, STATISTICS & COMPUTER STUDIES

CAPE COAST POLYTECHNIC

CAPE COAST

ABSTRACT

Information and Communication Technology (ICT) has come to stay with us. It has become a necessary tool for development. A developing country like Ghana cannot do without it. Governments and their agencies cannot function effectively without ICT interventions. The purpose of this study was to assess how far ICT has been integrated into the Ghana Education head office and its impact on the various functions of the public service. The sample of the study covered Education Headquarters all located in Accra. Education Headquarters is made up of Ministry of Education Head Office (MOE) and Ghana Education Service Head Office (GES). In all 68 personnel participated in the study. A 5 point likert scale instrument which yielded reliability coefficients of 0.832 was used to collect data. It was established from this study that more than 50% of public sector units and their functions have experienced ICT interventions. The study also revealed that despite low performance of ICT in the public sector, with its continuous output failures, respondents still prefer ICT to manual processes, demanding that integration of ICT into public service should be pursued. Considering the findings and conclusions drawn from the study it was recommended that public sector managers should adopt a strategic plan for ICT integration in the public service.

KEYWORDS

Computers, Ghana Education Service, Manual data processing, Ministry of Education, Ghana Education head offices.

INTRODUCTION

Information and Communication Technology (ICT) was introduced into the Ghanaian public sector more than two decades ago, in various professions, to make information available, to facilitate work and to enhance productivity. The basic aim of reducing manual processing in the education offices to its minimum level was also paramount. ICT was supposed to have started on a galloping note in Ghana, as compared to other sub-Saharan African countries; as such, its impact on development could not be over-emphasized (Opoku, 2004). It was anticipated that ICT would be integrated in all facets of the public sector, and its impact felt from the seat of governance to the kindergarten school level. However, Ghana finds herself among other developing countries which have been hit by the problem of the digital divide, which is more prominent in Africa. Ghana Education offices can boast of having received more inputs in the form of ICT infrastructure, especially computers, than the private sector in Ghana. Computers can be seen in every ordinary and executive office, conference and board rooms. Again, numerous government projects have introduced more ICT infrastructure into the public sector than any other event. The development of a Ghana national fibre optic network called Voltacom Project, by the Ghana Volta River Authority is a clear example of another input towards ICT infrastructure. The Ghanaian government has partnered private investors in providing ICT infrastructure, Notable among them are the Ghana Telecom (Now Vodafone Ghana), Millicom Ghana Limited (TIGO Ghana), Scancom Ghana Limited (MTN), Globacom telecommunications (GLO) and Expresso Telecom Ghana.

REVIEW OF LITERATURE

There has been tremendous growth in ICT since its advent decades ago. ICT has seen growth in size and capacity. In 2003, UNESCO Bangkok conducted a meta-survey of the state of ICT use in education across Asia and the Pacific. Not surprisingly, the survey found a great deal of variation in the nature and extent of technology integration in the more than two dozen countries surveyed. Specifically, 'countries are at different stages of both development and implementation in the areas of policy formulation, ICT infrastructure development and access to it, content development, programme initiatives and the training provided for education personnel' (Farrell and Wachholz 2003). The differences arise not only from differences in the countries' financial and human resources, but also from differences in policymaking with regard to ICT in education. Countries in sub-Saharan Africa are still struggling to find a place for ICT in their developmental plans.

Several attempts have been made by the developing countries to allocate portions of their budgets to technological advancement. Currently, it is a painful venture which may yield fruits in the future. According to a survey conducted by National ICT Policy and Plan committee in Ghana, majority of government ministries and public sector organizations have less than 10% of their total budget on ICT (including acquisition of hardware, software, training, maintenance of ICT systems, etc.). Microsoft, in partnership with British Council in March 25, 2013, organized a two-day workshop on Information and Communication Technology (ICT) Integration in Education in Accra-Ghana. The event, dubbed: "Leveraging Innovation for Global Competitiveness," served as platform to hasten the integration of ICT in education. The workshop also provided opportunity for leaders in the field and experts in ICT education to share ideas and challenges they faced from local, regional and international perspectives and devise strategies for integrating ICT in education.

According to Memela, (2007), the individuals tasked with automating the deployment of government services need to get a move on. Government and industry both agree that the integration of technology into the state's processes and services is not proceeding as rapidly as it should. Although a number of notable processes have been automated and integrated, the majority of government's services are still bogged down by miles of red tape and human intervention that is hindering its development.

NEED/IMPORTANCE OF THE STUDY

The findings of this study will assist educational managers to assess the effects of the use of ICT in education head offices in Ghana in areas like administration, human resource, procurement, inspectorate, accounting, payroll and the like. It is hoped that this study will unveil how far ICT has been integrated into the education head office and which areas need critical attention of ICT intervention. The outcome of this study will also enable management to institute measures to ensure that all educational functions receive appropriate ICT interventions.

STATEMENT OF THE PROBLEM

Even though ICT abounds everywhere in the Ministries, departments, agencies, schools and universities in Ghana, its impact is not felt as expected, especially in the educational head offices. ICT has not been able to replace the old system of manual processing completely. Manual work is still in progress across the public educational head offices. The public servant is comfortable using the old manual system. Where computers have been introduced, they are being under-utilized. Considering the widespread benefits of ICT, it is therefore important to conduct this study to ascertain the reality on the ground.

OBJECTIVES

This case study intends to research into how far ICT is being put to use at the various facets of the education head offices in Accra. It will further investigate the impact of ICT on educational functions at education headquarters, and consider whether the integration has been slow or abreast with time.

RESEARCH QUESTIONS

This study seeks to answer the following questions:

1. To what extent has ICT been used in the various units of the public Educational head offices in Ghana?
2. What has been the impact of ICT output on Educational head offices activities as compared to Manual output in public Educational head offices Ghana?
3. What portion of public sector budget is allocated to ICT integration at Ghana Educational head offices?

RESEARCH METHODOLOGY

The research was conducted using the case study method. This study focused on education head offices in Accra, as its target population. Education head offices are made up of the Ministry of Education (MOE) head office and Ghana Education Service head office (GES). MOE head office has five (5) main Divisions. Ghana Education Service (GES) head office has ten (10) Divisions. The sample for this study did not cover all the 15 divisions and their units and sections. Purposive sampling was used to select nine (9) units or sections that have ICT incorporated in their functions. The selection included units that have not made any effort to integrate ICT into their functions. These were hand-picked because they were relevant to the research topic.

The main instrument for the study was a questionnaire developed by the researcher after an elaborate literature review. The questionnaire adopted both open and close-ended questions, providing a balance between depth and authenticity of information, and fixed-option data which are more easily quantifiable. The items were tested (SPSS. v.17) for reliability using an internal consistency method, (Cronbach's alpha co-efficient [Cronbach,1990]) which yielded reliability coefficient of 0.832. The questionnaire was administered personally from room to room. This was very successful because some heads of units assisted in the administering of the questionnaire. Out of the 75 questionnaires administered, 68 were retrieved thereby recording return rate of 86.6%.

All the items in the questionnaire were computerized using the IBM Statistical Package for Social Science (SPSS v18). It involves definition of variables, keying in of the data using codes.

RESULTS AND DISCUSSION OF THE STUDY**Research question 1: To what extent has ICT been used in the various units of the public Educational head offices in Ghana?**

The extent to which certain units at Education headquarters are equipped with ICT tools, especially computers, was investigated. The idea is to find out units which are well resourced with ICT tools and are using them extensively, units that are well resourced but use ICT less extensively as well as units that are not well resourced and, for that matter, use ICT less extensively. Table 1 shows respondents describing the extent of ICT usage in their various units.

TABLE 1: EXTENT OF ICT USAGE

Extent of ICT Usage	Frequency	Percent
Very extensive	4	6.1
Extensive	30	45.4
Seldom	32	48.5
No Response	2	0.0
Total	68	100

Field data, 2010

One can deduce from Table 1, 45.4% use ICT extensively in their functions. Thirty-two (48.5%) use ICT less extensively in their work. This is on the high side, as far as ICT integration is concerned. However, 6.1% use ICT actively. It is rather encouraging to note that more than 50% of the respondents sampled use ICT extensively. Two respondents did not choose any option.

The study further sought information on the availability of PCs in the units under study. The result is reflected in Table 2. The purpose is to determine the number of PCs available for work.

TABLE 2: DETERMINING THE NUMBER OF PCS IN EVERY UNIT OF THE SAMPLE DATA

No. of PCs in Units	Frequency	Percent
Below 1	0	0.0
Between 1-5	26	38.2
Between 6 – 10	14	20.6
Above 10	28	41.2
Total	68	100

Field data, 2010

The data in Table 2 reveals that there is no unit without a personal computer from the number of units sampled. Twenty-eight (41.2%) represents units with more than 10 PCs. Twenty six (38.2%) respondents claim they have between 1 to 5 PCs they work with. Even though there are functions which are performed manually, almost every unit can boast of a personal computer.

A follow-up question was posed to find out when these PCs were acquired. The responses are shown in Table 3. The intention is to find out how often PCs are upgraded to meet current challenges.

TABLE 3: NUMBER OF YEARS OF CURRENT PERSONAL COMPUTERS

Years of PCs	Frequency	Percent
Below 5 years	54	79.5
Between 6-10 years	12	17.6
Above 10 years	2	2.9
Total	68	100

Field data, 2010

It is very clear from the information presented in Table 3 that 54 (79.5%) PCs in use are below 5 years of age. Only 2 respondents representing 2.9%, reported that their PCs are over 10 years after acquisition.

The purpose for the acquisition of personal computers also came up for consideration. The data collected in respect of this item are analysed in Table 4. Each unit is guided by its objectives/functions, which is a deciding factor for the acquisition of various ICT tools.

TABLE 4: PURPOSE OF ACQUIRING PERSONAL COMPUTERS

Purpose	Frequency	Percent
Secretarial	35	51.5
Database update	6	8.8
Accounting	7	10.3
Payroll	11	16.2
Statistics	7	10.3
Other	2	2.9
Total	68	100

Field data, 2010

The analysis in Table 4 tells us that over 50% of personal computers that were acquired in the Ghana Education Head Offices are used for secretarial functions. Statistical functions take only 7 (10.3%) of ICT functions. Two (2.9%) respondents indicated that ICT are used for other purposes. The picture is clear from this Table, that secretarial functions receive more ICT assistance than any other functions.

Research Question 2: What has been the impact of ICT output on Educational head offices activities as compared to Manual output in Educational Head offices in Ghana ?

It is important to assess how ICT has impacted the Education headquarters, despite its output failures, and also establish if there is any unit or function ICT has impacted most. The impact must be felt or seen, and users should be proud and recommend it. Table 5 shows the rate of ICT impact on Education headquarters.

TABLE 5: THE RATE OF ICT IMPACT ON UNITS AND THEIR FUNCTIONS

Rate of Impact	Frequency	Valid Percent
Fast	0	0
Gradual and consistent	23	33.8
Slow	41	60.3
Very slow	4	5.9
Total	68	100

Field data, 2010

The figures in Table 5 show that the rate of ICT impact on various functions of Education headquarters has been slow. More than half of the respondents represented by 41(60.3%), said the rate of impact is slow. Meanwhile, 23(33.8%) were of the view that the impact is rather gradual, meaning that even though it is not as fast as expected, it was consistent. None of the respondents said it was fast.

There are units and functions ICT has impacted most. The researcher therefore wanted to find out how these functions are. Table 6 shows some of the functions of Education headquarters where ICT has impacted most.

TABLE 6: FUNCTIONS MOST IMPACTED

Functions	No. Respondents	Percent (%)
Payroll	20	29.4
Statistics	10	14.7
Secretarial	31	45.6
Account	4	5.9
Others	3	4.4
Total	68	100

Field data, 2010

The analysis in Table 6 shows that 31 (45.6%) respondents are of the view that secretarial functions of Education headquarters receives most of the ICT support hence ICT impact is mostly seen in that function. Next is payroll, with 20 (29.4%) respondents saying ICT has impacted enough.

There are units whose functions need urgent ICT intervention to make its impact felt. These units appear handicapped as far as ICT integration is concerned. The researcher tried to find out from respondents' whether ICT should be given the chance to integrate without further delay.

Table 7 shows respondents suggesting units that need urgent ICT integration.

TABLE 7: UNITS THAT NEED URGENT ICT INTEGRATION

Units	No. Respondents	Percent (%)
Public Relations	29	42.7
Posting and Transfer	21	30.9
Transport	5	7.3
Estate	5	7.3
Others	8	11.8
Total	68	100

Field data, 2010

The information in Table 7 revealed that 42.7%, indicated that Public Relations of Education headquarters needs computerization. This is followed by Postings and Transfer Unit 30.9%. Transport and Estate Unit had 5(7.3%), with 'Others', 8 (11.8%). The Public Relations unit actually needs to have enough ICT tools to make their work of disseminating information very successful.

Respondents have recommended that other units like Public Relations and Postings and Transfer units of Human Resource should be given ICT integration. These are units that render service to people across the country. They should have enough information on the internet. This facility will reduce the problem whereby people have to travel long distances to collect information which could have been made available on the internet. The ICT officer with GES – HRM, suggested that results of postings of 12,000 students across the country could be made available on the internet.

There has been a lot of criticism of the fact that ICT output does not satisfy the demand of users. This issue has been prolonged to the extent that users often times have preferred manual output to ICT output in certain categories of work. Users have challenged results produced by ICT processes in certain jobs, and others have used the results since there are no other alternatives.

TABLE 8 COMPARES ICT OUTPUT TO MANUAL OUTPUT

Output compared to Manual	Frequency	Percent
Very satisfactorily	7	10.3
Satisfactorily	16	23.5
Below average	37	54.4
Poor	8	11.8
Total	68	100

Field data, 2010

The analysis in Table 8 reveals that ICT output as compared to manual output is below average. 54.4% were of the view that ICT output is below average. Seven respondents representing 10.3%, are very satisfied, 8 (11.8%) reject ICT output describing it as poor. In all, 45 (66.2%) respondents claim ICT output is below satisfactory.

As a follow-up to the outcome of the data in Table 9, where the performance of ICT output is below average, the researcher wanted to know some of the causes of ICT output failures in the public sector were also investigated. Table 9 outlines some of the causes of ICT output failures in the public sector.

TABLE 9: SOME CAUSES OF ICT FAILURES

Causes of ICT failures	Frequency	Percent
Managerial problems	28	41.2
Lack of funds	17	25
Change Management problems	9	13.2
Motivations	9	13.2
Others	5	7.4
Total	68	100

Field data, 2010

The data in Table 9 attributes the main cause of ICT output failures to bad attitudes and lack of interest on the part of public sector management. Out of 68 respondents, 28 (41.2%), blame top management of public sector as being the cause of ICT output failures. Public sector managements, including the Chief Executives, are yet to appreciate the immense benefits of integrating ICT into their work place. In an interview with the Finance Director, it was revealed that every management personnel wished they could incorporate ICT into their routine work, if they had the opportunity of starting their career with ICT; hence management is coping reluctantly with ICT.

Research question 3: What portion of public sector budget is allocated to ICT integration in Ghana Educational head offices?

Integrating ICT into the public sector has not received the needed financial support from government. Public sector executives have also failed to allocate adequate budget for ICT integration.

Table 10 shows how much was spent in the years 2007 and 2008. It must be noted that the budget for ICT for the two years was allocated to only two items; namely computerization of registry and purchase of computers and accessories. The registry computerization has been in the budget since 2003.

TABLE 10: BUDGET ALLOCATION FOR ICT (in GHc)

Year	Budget for Education Headquarters	Budget allocated to ICT	Percentage Allocated	Amount used	Percentage used	Percentage used from total budget
2007	25,474,850	62,438	0.25	54,435	87.2	0.21
2008	62,473,774	212,798	0.34	70,000	25.4	0.11
Total	87,948,624	275,236		124,435		

Field data, 2010

In year 2007, the budget had a provision of GHc62,438 allocated for ICT out of a total amount of GHc25,474,850 allocated to headquarters. Out of the amount allocated, GHc54,435 representing 87.2%, was used. In the year 2008, out of a total budget of GHc62,473,774 allocated to headquarters, an amount of GHc212,798.00 was provided for ICT. Out of this, only GHc70,000.00 representing 25.4% has been used. It is absurd to note that only 0.21% of 2007 budget and 0.11% of 2008 budget for education headquarters went into ICT. This is a clear manifestation of management's unwillingness to support ICT activities. Where a provision has been made in the budget for ICT integration, the willingness to pursue its intended course is not adhered to. Table 11 shows respondents' desire to see annual budget allocation to ICT increased from its current situation.

TABLE 11: INCREASING BUDGET ALLOCATION ON ICT

Budget on ICT should be increased	Frequency	Percent
Yes	58	85.3
No	4	5.9
Indifference	6	8.8
Total	68	100

Field data, 2010

Table 11 shows 58 respondents representing 85.3%, yearning for an increase in annual budget allocation to ICT in the public sector. However, 6 (8.8%) respondents are undecided as to whether it is necessary at all to increase annual budget allocation to ICT.

TABLE 12: PERCENTAGE INCREASE IN BUDGET ALLOCATION TO ICT

Portion of budget (%)	Frequency	Percent
Above 50	2	2.9
Between 40 – 50	8	11.8
Between 30 – 39	9	13.2
Between 20 – 29	36	52.9
Below 20	13	19.2
Total	68	100

Field data, 2010

Table 12 shows that 36(52.9%) respondents wish the education headquarters allocates between 20% and 29% of its annual budget to develop ICT. Two respondents, representing 2.9% wish government allows the public service to use over 50% of its annual budget on ICT development.

This is an indication that users of ICT wish to see more resources invested in ICT. They are not happy about the current state of ICT or the slow pace of development of ICT.

It can be concluded that public sector management has not invested much into ICT, as compared to the need for ICT integration. As a result there is pressure on management to increase budget allocation to ICT development.

DISCUSSION OF RESULTS, CONCLUSIONS & SUGGESTIONS

This study suggests that there is no unit without a personal computer from the number of units sampled. Even though there are functions which are performed manually, almost every unit can boast of a personal computer. The findings show that even though it has been established that every unit at Education headquarters can boast of at least a personal computer, most of these are used for secretarial functions: and hence, they are not in extensive use.

The analysis of this study also shows that the rate of ICT impact on various functions of Education headquarters has been slow. The study reveals that secretarial functions of Education headquarters receives most of the ICT support hence ICT impact is mostly seen in that function. This is in sharp contrast to McCauley (2005) finding that "Public sector organizations in many countries have put technology to good use in improving on their delivery of services." He noted that instilling flexibility and speed requires the ability to harness IT throughout the organization.

There has been a lot of criticism of the fact that ICT output does not satisfy the demand of users. This issue has been prolonged to the extent that users often times have preferred manual output to ICT output in certain categories of work. This low impact of ICT is attributed to bad attitudes and lack of interest on the part of public sector management. Shirk (2005) asserts that, for public sector organizations, swift adaptability to change will be the silver bullet for success over the next few years. The public service must look at this assertion critically and work towards it.

Public sector managements, including the Chief Executives, are yet to appreciate the immense benefits of integrating ICT into their work place.

In year 2007, the budget had a provision of GH¢62,438 allocated for ICT out of a total amount of GH¢25,474,850 allocated to headquarters. Out of the amount allocated, GH¢54,435 representing 87.2%, was used. In the year 2008, out of a total budget of GH¢62,473,774 allocated to headquarters, an amount of GH¢212,798.00 was provided for ICT. Out of this, only GH¢70,000.00 representing 25.4% has been used. It is absurd to note that only 0.21% of 2007 budget and 0.11% of 2008 budget for education headquarters went into ICT. This is a clear manifestation of management's unwillingness to support ICT activities. (National ICT Policy, 2003) Economic and Social Survey of Asia and the Pacific (ESSAP) confirmed this finding. In their 1999 survey, it was revealed that, governments' budgets tend to be tight, especially in developing countries, since this can create problems for rational ICT development and hamper the ability to react quickly to new requirements or buy the latest technology.

FINDINGS

SUMMARY OF MAJOR FINDING

1. This study revealed that Information and Communication Technology had been introduced into the public sector for over 15 years; but the public service is yet to experience the full impact of ICT in their functions.
2. An outstanding revelation of the research was that, even though a personal computer can be spotted in almost every unit, manual processes still dominate government activities in the public sector.
3. The study revealed that despite the low performance of ICT in the education head offices, with its attendant output failures, public servants still prefer ICT to manual processes, demanding that integration of ICT into the public service should be pursued.
4. It was also found out that Public Sector Management lack in-depth knowledge of what ICT can do. Hence, they do not have the urge to come out with policies to support ICT. As a result, many causes of ICT output failures emanates from them.
5. Again, the study revealed that the annual budget allocation to ICT development in the public service is insignificant, and that there is the urgent need to increase it.

RECOMMENDATIONS/SUGGESTIONS

Considering the findings and conclusions drawn from the study, the following recommendations are made:

1. Public sector managers should adopt a strategic plan for ICT integration in the education head offices.
2. Government, working through the Ghana national ICT policy, should enforce a policy which enjoins education head offices managers to allocate a substantial percentage of their budgets to ICT integration.
3. Public service ICT staff should be trained regularly and given the opportunity to take over ICT projects whenever a project comes to completion.
4. To train and retain ICT staff in the public sector, management should endeavour to motivate ICT staff.
5. Preparation of ICT projects documents should make adequate provision for training and transfer of skills to local staff.
6. ICT should be seen as an enabling or facilitating tool to benefit the whole of society and not only the elite and the urban areas.

CONCLUSIONS

Despite the numerous advantages ICT brings and its overwhelming acceptance, ICT integration in the public service for that matter education head offices faces a lot of challenges. It is to be noted that some of these challenges can be resolved if public sector management would appreciate the immense contribution of ICT to development, especially in the public service. Notwithstanding the above challenges facing ICT integration in developing countries, ICT is a necessity for developing countries, because it is the primary means of communicating with the outside world. Ghana, a developing country, should take cue from the following wise sayings: "We paid the price of not taking part in the industrial revolution ...because we did not have the opportunity to see what was taking place in Europe. Now we see that information and communication technology has become an indispensable tool. This time, we should not miss out on this technological revolution." (Allotey, 2000) . "The message for Ghana is that, we need to embrace information, knowledge and technology. If we, Ghanaians, fail to take advantage of information technology, we will be further marginalized in the world" (Dzidonu, 2000)

SCOPE FOR FURTHER RESEARCH

This study covered Ghana Educational Headquarters only. It sampled only 68 staff and interviewed 11 senior staff members. This study was done using headquarters of a public sector. To confirm or generalize these findings to all public sectors of the country, there should be a replication of the study to other public sectors in the regions of the country. This will involve a larger population where the findings could be compared and contrasted with each region. The same study should be done at the district level of the public sector in the country.

However, to conduct such studies, it is advised that the same basic instruments of the study should be used in order to confirm or reject the findings of this study.

REFERENCES

1. Allotey, F.K.A. (2001). The Black Star: To the Promised Land *Information Technology and Ghana's "Destiny"* chapter 1 UNDP Human Development Report.
2. Cronbach, L. J. (1990) *Essentials of Psychological Testing*. New York: Harper & Row.
3. Dzidonu, C. (2001). The Black Star: To the Promised Land '*Information Technology and Ghana's "Destiny"*' chapter 1 UNDP Human Development Report
4. McCauley, D. (2005). Director of Global Technology Research, Public sector organization in technology. Economist Intelligence Unit. "*Information Technology the Key to Public Sector Improvement in 2010*". Retrieved January 2010, from <http://www.sap.com/corporate-en/press.epx?PressID=4618>.

5. Memela, S. (2007). "Government ICT delivery speeds up" Fool's paradise: BrainstormMagazine. www.brainstormmag.co.za/index.php?option=com...
6. Opoku, R.A (2004): "Ghana and ICT, Strides, challenges and the way forward". Retrieved January 2010, from <http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=54098>.
7. Republic of Ghana(2003).National ICT Policy and Plan Development Committee Deployment and Exploitation of ICT in Government Ministries and Public Sector Organizations "*Expenditure on ICT as Percentage of Total Organizational Expenditure*" .
8. Shirk, T. (2005). President, SAP Global Public Services "*Information Technology the Key to Public Sector Improvement in 2010*" Retrieved February 2010, from <http://www.eiu.com>.
9. The National ICT Development Policy (2003).A policy statement for the realization of the vision to transform Ghana into an information-rich knowledge-based economy. Retrieved February 2010,from http://img.modernghana.com/images/content/report_content/ICTAD.pdf.
10. United Nations (ESCAP, 1999) Economic and Social Commission for Asia and Pacific Economic and Social Survey of Asia and the Pacific (ESSAP, 1999) "*Considerations for ICT policy formulation in developing Countries*" survey '99 contents
11. Farrell, G. and C. Wachholz. (2003). *Meta-survey on the use of technologies in education in Asia and Pacific, 2003–2004*. UNESCO Bangkok. Retrieved 22 November 2008 from <http://www.unescobkk.org/index.php?id=1807>
12. UNESCO Bangkok. (2004). *Integrating ICTs into education: Lessons learned*. Retrieved January 2010 from <http://www.unescobkk.org/index.php?id=1793>



REQUEST FOR FEEDBACK

Dear Readers

At the very outset, International Journal of Research in Commerce, IT & 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

