

- Samelson, D., Lowensohn, S. & Johnson, L. E. (2006). "The determinants of perceived audit quality and auditee satisfaction in local government. *Journal of Public Budgeting, Accounting and Financial management*, 18(2), 139-166.
- Suleiman, N. A., Fatimah, M. Y. & Muhamad, R. (2018). Perspectives of audit quality: An analysis. *Asian Journal of Accounting Perspectives*, 11(1), 1-21
- Tepalagul, N. & Lin, L. (2015). Auditor independence and auditing quality: A literature review. *Journal of Accounting, Auditing and Finance*, 30(1), 35-43.

Effect of Information Management System on Revenue Generation in Nigeria

OKWOLI, Sunday

Department of Accounting
Bingham University
Karu, Nasarawa State

E – Mail: sokw7524@gmail.com, Phone No: +234 8089962543

Abstract

At the inception of business environment, it was all man and organization both in public and private sectors in respect of the desire for huge revenue intended to be generated. Little or complete absence of technological involvement or application for enhancement of performance leading to increase in revenue generation was conspicuously in place. While private business organizations need adequate funds to remain afloat in business, the government at the other extreme end needs funds to meet its daily increasing financial obligations involving both capital and recurrent expenditure respectively for the benefit of its citizens. This, therefore, necessitates the need for galvanizing effort towards enough revenue generation to cater for financial loads that are being shouldered by the government. The study concludes that MIS has come to stay in social organizations particularly in revenue generating business set up both in private and public sectors. It is therefore recommended that there is a need for continuous integrating of same for effective functioning of the whole organization.

Keywords: Man, Organization and Technology

INTRODUCTION

To say that either business organization or government is not in search of ways and means to improve performance in its operations resulting to increase in revenue generation is not only fallacy but absolutely an understatement. The quest for efficient and effective performance with its resultant effect in increasing revenue generation makes Management Information System a necessity of all organizations and even government and its agencies, especially those shouldered with the responsibility of raising or generating revenue for the government; for example, Nigerian Ports Authority (NPA), Federal Inland Revenue Service (FIRS), Nigerian National Petroleum Corporation (NNPC), Stock Exchange Commission (SEC) just to mention but few. The initial concept of MIS was to process data for the organization and presents it in the form of reports at regular interval. The concept was further modified when a distinction was made between data and information. Information is a product of analysis of data, which is similar to raw material and finished product. What is needed is information not a mass of data! According to David M. Kroenke of University of Washing I his book "Using MIS", MIS is defined as "

the development and use of information system that help business achieve their goals and objectives” and that system is “a group of components (hardware, software, data, procedures, people) that interact to achieve some purpose. Organisation uses information in many ways to reduce business risk and help managers make decisions. It is safe to say that today; information system can mean the difference between success and bankruptcy for many organizations. The purpose of information system in modern organization is to carry information system three functions: handling the present, remembering the past and preparing for the future. Regardless of how well transactions are processed or the resulting data are stored in organisational memory along with information and knowledge, if employees and managers do not make good decisions, the survival of the organization can be in doubt. In the 1970s, managers realized that they could use computer-based information system for planning, control, decision making, and problem solving, rather than just for reporting transactions. The new types of information system came to be known as Management Information System, or (MIS).

The importance of the management information system in generating revenue for government was, for instance, strongly emphasized in 2013 by the then Managing Director (MD) of the Nigerian Ports Authority (NPA), Mallam Habib Abdullahi at the commissioning of the Port Information Management System (PIMS) for the Lagos Port Complex, Apapa, Lagos, as “a bid to fulfil Nigerian Ports Authority (NPA) goals of disseminating real time and accurate information that will enhance efficient service delivery in the nation’s Seaports”. This was buttressed by the Project Consultant, Mr. Fredrick Agbai that “the system provides real time information on ship arrival on daily basis, including the agents husbanding the vessels. messages on operations at terminals, and so on”. The saving of cost by MIS was further supported by the NPA Executive Director, Maintenance and Operations, Engineer David Omonibeke, that “the system provides a first hand information to enable them act proactively and at the same time save cost”. In the 1st Quarter of 2013, for example, the Nigerian Ports witnessed increased Gross Tonnage of Coastal Vessels And Laden Container. Laden Container Throughout was 216,110 TEUs, a growth of 2.9% over its 1st Quarter of 2012 figures of 210,057 TEUs (Nigerian Ports Today, Pg.25; vol.1 No.9 ISSN 2276-6413 J, 2013). Cargo Throughput: in 2014, a total of 86,603,903 metric tonnes of cargo were moved through Nigerian Ports, showing an increase of 12.64 percent over the 2013 figure of 76,886,997 metric tonnes (Operational Reports, pg.58, Nigerian Ports Today vol. 4 No.16 April 2015). The combination of the efforts of man with the aid of technology carried on data result to information that enhance performance leading to high productivity at diminished cost and high revenue.

LITERATURE REVIEW

Conceptual Framework

Conceptual of Man

According to Concise Oxford English Dictionary, Luxury Edition, Man is a male member of a workforce, team, etc. Economically, man (labour) is considered as a factor of production. Man therefore, is at the centre of productivity processes. The MIS concept was initially to process data (by man) for the organisation and present same in report form at regular interval. The involvement of man in data processing constitutes a central element in making data to become information. Patrick Mckeown (an English Author) “Information and Technology The Network Economy” opined that regardless how well transactions are processed or the result data are stored in organisational memory along with information and knowledge, if people, the employees and managers do not make good decisions, the survival of the organization can be in doubt”. Of course, the result is decrease in revenue generation. The synergy between man and technology in management Information system was emphasized by Effy Oz (Fourth Edition) that computers carry out instructions given to them by humans. It process data accurately at far greater speed than people can, yet limited in many respect – mostly importantly they lack common sense. He is of the opinion that notwithstanding, combining the strengths of these machines with human strengths creates synergy. No independent decision or formulation of steps problem-solving except programmed to do so.

Concept of Organisation

According to Ndulue (2011), organisation as a function is “the process of identifying an grouping of the works to be performed, defini and delegatiting respeonibility ans authority an tablishing relationships for the puropos of enabling people to work most efficiently”. Effy (2012) revealed that Information system in organization is made up of data, hardware, software, telecommunications, people, and procedures, computers, collections, store and process data into information according to instructions people provide via computer program. This assertion is upheld by Lambe Isaac (Dr) under the “Concept of Information Communication Technology (ICT)” of his book Computer Application And Data Processing (pg. 61). Information is used in organization in many ways to reduce business risks. Failure of an organisation to process transactions accurately and in a timely manner, it will not continue to exist for very long.

Concept of Technology

The involvement of technology in disseminating messages (information) gave rise to the Information Communication Technology (ICT) that has today come to stay and becomes one of the cornerstones of every organisation either business or non-business, profit-making or non-profit making entity. Lambe Isaac (Dr) (2018) in his aforementioned book (pg. 61), stated that “Information and Communication Technology basically refers to the tecnologies designed to access, process and transmit information”. The United Nations Development Programme (UNDP) defined ICT as “the building block of the networked world. Relating it to the management information system therefore, it is entirely agreeable with Lambe Isaac (Dr) in his assertion that “generally ICT stands for various technologies used to collect, store, order, edit, process and pass on information necessary in implementation of predetermined task”, business the computerization of business processing system in generating information for the people in the organization to meet the information needs for decision making to achieve objectives of the organization makes MIS not out of place in the organizational system. As an attestation, the Nigerian Ports Authority (NPA) recorded in 2014 a total of 9,603,903 metric tonnes of cargo movement through out Nigeria Ports, showing an incese of 12.64 percent over thde 2013 figure of 76,886,997 metric tones (Operational Reports, pg.58, Nigeria Ports sToday Vol.4 No.16 April 2015).

The Federal ministry of Finance in its publication “National Tax Policy (April 2012)” emphasized the importance of MIS when it was said inter alia that “in addition, there shall be the use of technology and related systems in tax administration particularly in the payment and collection process (pg.22). A further attestation was revealed by the Federal Inland Revenue Service (FIRS) in it 2009 Annual Reports and Accounts: Information and Communication Technology that “the departmn achieved a lot in the area of system/internet/web portal availability for all FIRS offices (pg.33). The Revenue Analysis; In 2009 total collection of all taxes stood at N2,196.47 billion compared to N2,972.1 billion in 2008. The performance surpassed the budgeted revenue target of N1,908.97 billion by 15%. Non poil contributed 57% to the total collection as against that of oil revenue of 43% (pg.36). The Annual Report Table 5.0 below shows Budget and Actual Collection for 2009, as an instance:

Table 1: Budget And Actual Collection, 2009

Tax Type	2008 Actul Collection (N`B)	2009 Budgeted Tax Revenue (N`B)	2009 Actual Tax Collection (N`B)	2009 Performance Against Budgeted Tax %
PPT	2,060.88	638.78	939.41	47.06
CIT	420.58	587.00	600.59	232
VAT	401.74	580.00	481.41	-17.00
EDT	59.47	63.11	139.53	121.09
Consolidation	26.97	35.67	28.71	-19.51
NITDEF	2.46	4.40	6.82	55.00

Total	2,972.10	1,908.96	2,196.47	15.06
Total Non Oil Collection	911.22	1,265.75	1,250.24	
4% of Collection	36.45	50.63	50.07	

Source: FIRS 2009 Annual Reports and Accounts.

All the Taxes had a strong performance. Petroleum Profit Tax (PPT) exceeded the Government's target by 47.06%, Companies Income Tax (CIT) also surpassed target by 20.32% while Education Development Tax (EDT) and NITDEF levy were 121.09% and 55% above budget respectively (pg.337)

Empirical Review

Lambe (2018) emphasized on the gains of using information system to reduce cost when he said in his book mentioned (pg.70) under Electronic Commerce that "one of the advantages of e-commerce is the reduction of transaction cost". The central objective of MIS is to provide information to every resource of company so that they can make an instant decision. The application of management information system in organisation for efficient and effective daily operations which lead to the high performance at reduce cost and increase in revenue generation is upheld by the Federal Inland Revenue Service (FIRS) in its publication of 2012 titled: "Federal Inland Revenue Service and Taxation Reforms in Democratic Nigeria", that "automated processes would minimize or eliminate leakages in the system, which may be due to error or misconduct on the part of officials or taxpayers, safeguard the integrity of the system and lead to greater professionalism on the part of tax officials and greater confidence on the part o taxpayers (pg.25). The NPA Executive Director, Maintenance and Operations, Engineer David Omonibeke (in the aforementioned NPA publication) affirmed this when he said that "the system (MIS) provides first han information to enable them act proactively and save cost".

Ayem, G. Terna and Igoche, B. Igoche (Fundamentals of Computer Organization and MIS) agreed that the production of appropriate information system is the goal of MIS for the end users. The producing of feedback about organization's input, processing, output and the system and meeting of established performance standards are factors that reduce costs and increase revenue generation. Without information, they said, no organization is capable of survival and generates revenue. The importance (and management) of information is empathized by (Scann 1982), for any modern organization leading to increase in productivity and efficiency. Lucey (2011, Ninth Edition, Management Information Systems) under the "Closed systems and open systems" emphasized on the interaction of the business organization with its environment as it receives inputs and influences from its environment, and in turn passes back output and influences to the environment. The organization's adapt to changes in the environment is the key element in an organization's success and its very survival cum revenue generation. He is further of the opinion under "The nature of planning and decision making and technique available" that the primary task of management is planning and decision making. The application of MIS has assisted management in planning as a process of deciding in advance what is to be done and how it is to be done.

Theoretical Review

Richard (2014) in his Organizational Theory and Design agreed with the strong impact of MIS on revenue generation in the service sector or functional business areas. He was of the opinion that information system play such a central role in the service sector that they are often the backbone of service organizations such as banks that use Automated Tellers Machines (ATMs). The harmonizing of Information Technology (IT) to increase productivity through the usage of MIS by service sector are more than any other sector. David M. Kroenke, in his book: "Using MIS", emphasized on the uses and development of MIS that helps businesses achieve their goals and objectives – by extension: profit making (revenue generation). Lambe Isaac (2018) pointed out (some) benefits of application of ICT business and E-Commerce resulting to fast communication within firms, and thus make the management of organization's resources more efficient. Lucey (2011) recognizes the effect of MIS on revenue

generation that is borne out of the need for changes in line with environmental dynamism. He is of the view that “the existing work patterns and practices need to be updated more press continually to keep paced”. He further opined I his “theory for the drive for productivity and quality” made another that “the drive for productivity is also apparent in numerous service industries; tht the improved method and use of information technology have enabled, (for example) banks and building societies to increase business”. He further attested to the fact that MIS acts an aid to monitoring and control by providing information about performance and extent of deviation from planned levels of performance.

Lambe (2018) writing on Contemporary Issues in Computer Forensic and Accounting did acknowledge the role of hardwares as MIS tools, that have their own tools for recovering or carrying out deleted data that have already been collected, processed and stored in the computer for management decision and future use. This aversion of manipulation of financial records certainly helps the organization to maintain its actual cash levels and working capital for expansion and growth. BUJAB (2020) under the Impact of e-Payment Systems on the Management Of Public Fund in Ngieria, amplified the voice of Nwankwo (2009) assertion that “e-payment involves the use of web-based technologies a d electronic communication (information) networks for payments for goods and services”, - thereby facilitating business transactions, reducing processing costs and increasing efficiency.

METHODOLOGY

This study is to examine the extent to which Management Information Systems (MIS) has effect on revenue generation in Nigeria. The study design adopted herein is predominantly exploratory, using secondary; data are sourced from books of authoritative Authors and Journals/Annual Reports of reputable organizations and that of a reputable University.

RESULT AND DISCUSSION

The birth of MIS into the business environment is not as old as business itself, This is because the former (MIS) is a child of necessity for ll business for the purpose of enhancing performance , reducing cost effective control and assist mnzgmndt in decision making. Notwithstanding, it is fast making in-rod into all sectors of social organizations. Conceptually, MIS is associated with man, machine, marketing and methods for collecting information from internal and external service and processing this information for the purpose of decision making of the business. It is no doubt that MIS provides the data to identify non-performing and leads to better business productivity and efficiency, better decision making, better communication and better data and better knowledge of customer need. Terna & Igoche readily recognize this when they said that for organization tp reach its objectives, it must be able to plan, control, coordinate its activities which are achieved by the data processing or information system within the organization. With what MIS stands to achieve, it has some pitfalls such as “No management to build upon as MIS must be built on top of a management system which includes the organizational arrangements, the structures and procedures for adequate planning and control, the clear establishment of objectives and all other manifestations of good organization and management. Another piffl I “understanding what kind of business the organization is into” it; as not having the crispy stated mission and purpose for the company or organization is a c ommon weakness. “Orgaization of MIS Functions” is also a factor that stands tall in front of management of various organizations. The lack of proper organization of the EDP and MIS constitute a significsnt cause of computer failure.

CONCLUSION AND RECOMMENDATIONS

The incapability of an organization without MIS is not an understatement. Obviously, it is nothing than total embracing Of management information system. MIS havig been operatig smoothly for a short period Of time, calls for an evaluation of each step in the design, and final system of performance should be made without delay. The evaluating should not be delayed beyond the time when the system analysts have completed most of the data debugging as longer delay will make it difficult for the designers to

remember details. Identification of cost savings and increased profit directly should be attempted by the designers. Since information is the raw material of decision making, and if information is not generated, disseminated and used for management, then no system – manual or computer is going to solve the problem.

Understanding the mission of the organization will avert it from being shaken and seeing any major challenge as a complete new challenge, and must be analyzed from ground up. In order not to make chances of MIS satisfying management needs unsuccessful, the business objectives must be clearly stated. There is no discuss of MIS without mentioning of people, and since there is no substitute for competence, good performers of people will worth the price. To avoid computer failure, there should be proper organization of EDP and MIS. Knowledge Management (KM) is vital in MIS. It is the process by which an organization formally creates, gathers, organizes, and analyses, shares and applies the knowledge in terms of resources, documents, experiences and people skills. Knowledge which is derived from previous understanding and experience, enables information to be processed and used more effectively in solving managerial problems. In conclusion, MIS has come to stay in social organizations particularly in revenue generating business set up both in private and public sectors. The justification for the advent is seen from its stand as a means for feedback and feedforward! Positive feedback causes the system to amplify an adjustment or action. On feedforward, a close examination of any real system such as a private or public sector organization will show that there are two types of control loops: feedback loops which monitor past results to detect and correct disturbances to the plan, and feedforward loops which react to immediate or forthcoming dangers by making adjustments to the system in advance in order to cope with the problem in good time.

References

- Abdul, A. (2013). Management Information System Framework. *Information Journal*, 1(8), 22-30
- Mckeown, P., (2012). *Information and Technology: The Network Economy*. Pennsylvania: Pennsylvania State University.
- Daft, R. L., & Texas, A (2012). *Organization Theory and Design*. USA: Texas University
- Kroenke, D.M. (2009). *Management Information System*. USA: University of Washington
- Federal Inland Revenue Service (2009). *Annual Report and Accounts*. Abuja: FIRS Publication
- Federal Ministry of Finance (2012). *National ax Policy*. Abuja: FMF Publications
- Lambe, K. I.(2018). *Computer Application and Information Management (Theory and Practice)*. Enugu: Rossen Publications
- Lucey, T. (2011). *Management Information Systems*. Abuja: Ninth Publications
- Terna, A. & Igoche, B.I (2013). *Fundamentals of Computer Organization and Management Information Systems*. Lagos: Publication Incorporated.

Impact of Management Information System on E-Commerce and Digital Markets

NEV, Juliet Mure

Department of Accounting
Bingham University
Karu, Nasarawa State

E – Mail: nevjuliet0@gmail.com, Phone No: +234 9093244713

Abstract

Digitization is having profound effects on how enterprises function. Its impact on accounting is growing as the rise of the internet, mobile technologies and digital economy tools generate depth, breadth and variety of data that far exceed what researchers have had access to in the past. The continuous expansion of electronic commerce in the last years and the fact that the Internet has become an indispensable tool in everyday life, building a quick and easy connection for business, prompted us to investigate the implications of e-commerce and the digital markets. But whilst social scientists interested in organizational issues are starting to question conventional methodological approaches to the study of contexts where digital data forms are drawn upon, little such concern has been voiced in the management information literature. This paper seeks to explore the continued applicability of conventional methodological thinking when carrying out investigations within digital data environments to inform management information system and also aims at the impact of digital markets and e-commerce accounting operations in the context of faster development of Internet transactions. The need for this study is determined by the current context, where social networks are used increasingly successful as platforms for electronic business promotion.

Keywords: Management Information System, E-Commerce, Digital Markets

INTRODUCTION

Ecommerce (Electronic commerce) involves buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, predominantly the Internet. E-commerce (Electronic commerce) is a paradigm shift influencing both marketers and the customers. Rather e-commerce is more than just another way to boost the existing business practices. It is leading a complete change in traditional way of doing business to an advanced way of business in a digital market. A massive internet penetration has added to growth of E-commerce and more particularly start-ups have been increasingly using this option as a differentiating business model. Moreover E-Commerce has significant influences on the digital market. The impact of electronic commerce on the social and economic environment is treated in a number of research papers and studies, but very few deal with the fiscal and accounting issues risks of transactions on the economies of various countries.

The measurement of organizational efficiency underscores in real terms the viability and feasibility expectancy of that organization. How profitable and effective an organization becomes is a matter of how competent the overall management is. In other words, organizational competency is heavily anchored on its efficiency while efficiency itself is a function of effectiveness which are both jointly used to appraise the consequential outcome of the operational activities of an organization. Efficiency is less precise and more definite than effectiveness because it denotes the relationship existing between inputs and resultant outputs. In a comparative analysis of corporate efficiency, Kax and Kahn (1987) as cited in Okeke (2000) states that more efficient organizations produce more outputs, for the same amount of given inputs; and, therefore, performs financially better. Therefore, efficiency and effectiveness are the basic properties upon which Business or Management Information System such as accounting must be propelled.

LITERATURE REVIEW

Conceptual and Empirical Discussion

Management Information System (MIS) exists to provide managers with tactical, strategic and operational information that they require in the day-to-day running of their various organizations. The

objectives of a good management information system are to provide cutting-edge decision making information to the organization's management at; the shortest possible term; the lowest possible cost; and with The least ambiguous terms. Where information used in decision making is inaccurate, surely the outcome of the decision would be failure also if the data used in processing the information employed in the decision process is already stale, then the same measure of failure in the decision outcome is expected. In this contemporary corporate world of fast business and competitive opportunities, a good management information system (MIS) embedded in cutting edge information technology is deployed to gain competitive edge and fast-forward the progress and economic development of a firm or industry. If we are to view accounting as an instrument of attaining accountability, then accountability itself plays the most important role towards the growth and sustenance of any entity by:

- Ensuring proper application of the organization's assets and other resources;
- Protecting the entity's assets;
- Preventing the misappropriation of the entity's liquid assets;
- Protecting the organization from unnecessary liabilities and litigation;
- Ensuring the accuracy and dependability of all financial records and operating information;
- Analyzing and comparing operating efficiency and ensuring adherence to the organization's established policies.

For accounting to play its roles in an organization successfully, the accountants must recognize their full expectations which are outlined as follows:

- Preparing and communicating financial and managerial accounting information to the various users;
- Assisting management with relevant information to curb or eliminate wastage;
- Setting up and running an efficient system of internal controls;
- Preventing and investigating frauds;
- Treasury management;
- Tax planning and inventory management;
- Securing the assets of the organization.

The above list is not in any way exhaustive as modernity has tended to perpetually expand the responsibility of the contemporary accountant. However, the quality, accuracy and timeliness of the managerial information generated will determine the success and the effectiveness of the decision to be taken with them. This is the main area of concern to the accountant. It is also the reason why most of the author's scholarly works centered majorly on producing efficient and effective foundational platforms upon which managerial decision variables and reports are based. The basis for the measure of performance using capital employed was also improved upon by the author through the introduction of the Enhanced Return On Capital Employed (EROCE) with a study which proved that the most effective Return On Capital Employed (ROCE) can only be achieved by measuring the Profit Before Tax (PBT) against the actual amount spent on generating the profit – the total operating cost, rather than the capital employed at the end of the financial year (Enyi, 2006). These claims are boldly supported by evidences of global applicability of the new innovations through confirmatory and comparative research findings from jurisdictions such as India, Malaysia, Philippines, Iran, Turkey, Kenya, UK and even by local researchers here in Nigeria (Ghodrati & Ghanbari, 2014; Adeleh, Hamidreza & Enyi, 2014; Edy-Ewoh, 2013; Singh & Asress, 2010).

Users of accounting information can be broadly classified into two – internal and external. Internal users are those persons who take decisions on the kind, type, and quantity of resources available and the way the resources can be applied to achieve the organization's objectives. External users consist of shareholders, potential investors, suppliers, creditors, state agencies and the public. More than before, Nigerians are becoming increasingly interested in investing in the organized business environment. This

is evidenced in the quantum of trading that takes place on the floor of the Nigerian Stock Exchange (NSE) especially between the years 2003 and 2009. To be a successful investor you need the financial information of the companies which shares are traded in the market. Making this information available to all at the right time is the primary responsibility of the directors through their accountants. The introduction of the first commercial computer named ENIAC (Electronic Number Integrator And Computer) by the International Business Machines (IBM) in 1945 gradually changed the modus operandi of accounting as this noble discipline was one of the foremost application to which the new number crunching monster was initially deployed. ENIAC was followed in 1951 by UNIVAC (Universal Automatic Computer) by John Presper Eckert and John Mauchly. It was noted that these were indeed gigantic machines used traditionally for scientific applications compared to what we now see as computers today. Thereafter, many others of more power, speed, smaller sizes and more defined applications were developed. This was then followed, of course, by more user friendly operating systems and not too long ago, the Internet.

These more powerful computers, software, graphics, networking capability – including the internet, have helped organizations worldwide to become more flexible and highly responsive to the needs of the business world giving power to both shop floor operatives/workers and their management. In the opinion of Alter (1996), Information and Communications Systems enable new forms of organization, new ways to work and new ways to compete. They give new meaning to everyday things such as money, books, offices, advertisements and entertainment through YouTube and other internet based social networking. Awoyelu (2001), noted that Nigerian banks improved their effectiveness and competitiveness through the use of Information and Communications Technology, which resulted into fewer and shorter queue lines, customer satisfaction, elimination of the need to carry bulky amount of money to do business in distant locations as it is now possible for a customer whose account is in a Sokoto branch to withdraw from or pay-in money into his account at another branch of the same bank at Aba. Due to the immense benefits of the computer already being enjoyed and the fast rate at which ICT is evolving, Professor S. Moore of Cambridge University argued in 2004 that by the year 2010 the world would be immersed in a sea of miniature computers. With the influx of Smart phones, iPads and palmtops; needless to say that his prophesy has come to fulfillment even before that time. To stress more on the contributions of digital accounting, a new wave of online businesses recently sprang up among urban dwellers in Nigeria; this is called online marketing or E-commerce with chains of virtually connected stores.

As posited earlier, accounting was one of the earliest beneficiaries of the introduction of the digital computer and accountants have equally risen to embrace the benefits offered by the digital machine. As early as 1979 the duo of Dan Bricklin and Bob Frankston invented the electronic spreadsheet which in their explanation is intended to replace the accountants' *pencil and columnar analyses sheets and pads*. A spreadsheet is a popular program used to analyze numeric information which helps to make meaningful business decisions possible. However, before the advent of the electronic computers, businessmen and their accountants were known to have relied on accounting aids or instruments to help manipulate large numbers, manage their cash and credit resources and balance their books. The ancient scribes (accountants) and their employers (kings, emperors and businessmen) made extensive use of the Abacus and Napier bones in their day to day analysis of their business transactions, tax collections and management of entrusted resources and fortunes. It is noteworthy that the principles underlying the computational operations of the Abacus which origin is still the subject of some debate and Napier bones developed by John Napier (a Scot) in the 17th century helped in the eventual development of the modern day electronic computer.

METHODOLOGY

By means of an exploratory approach, the Impact of Management Information System on E-Commerce and Digital Markets is examined. The contemporary discussions around this phenomenon which cannot be overemphasized are all articulated in the discussions.

RESULT AND DISCUSSION

The electronic spreadsheet application is an automated version of the traditional accountant's columnar ledger sheet or pad. Spreadsheets are used by accountants (now extended to non-accountants) for a variety of applications ranging from share price analysis, sales, inventory, and expense analyses, production planning and monitoring, budgeting and budgetary control, cost estimation to simple household record keeping. In the words of Haag and Perry (2002), under the manual method, changes made to a hard copy worksheet can take a lot of time to be effective for even the simplest alteration because many values that are dependent on the change must be recalculated afresh. However, with electronic spreadsheet changes made automatically triggers the recalculation of the values in all dependent cells. This is achieved by the use of formulas and cell address references. VisiCalc is probably the first commercially available spreadsheet; there are many others in use today. These include; Multiplan; Lotus 123; Quattro; and Microsoft Excel. Of those mentioned Microsoft Excel remains the most popular and is fully integrated with other members of Microsoft Office business suites. Today, with a plethora of other system based accounting packages in use all over the world, it can be rightly argued that the digital age has helped to break the managerial information barrier. This is because all the three major requirements of a good management information system have been met. Information processing is now being done at [economically affordable costs], [when required] and [as required]. We buttress our argument here by making reference to some of the contributions of the digital age to accounting and general information processing; Reduction in routine clerical activity through automated documentation e.g. placement orders online, acknowledgment of correspondences, Provision of accurate and up-to-date essential for routine decision making; Improvements in managerial exception reporting; Automated budgetary control and variance analysis; Coping with heavy and fluctuating workload; and Reduction in order and transaction processing time.

The list is endless as there seems to be more and more electronic payment and receipt accounting solutions being churned out on daily basis. Still on the benefits of e-payment, Okwuke (2013) quoting the then Central Bank of Nigeria (CBN) Governor, Mallam Lamido Sanusi indicated that electronic payment in Nigeria surpassed the ₦1trillion mark in the first half of 2012. This he stated resulted from the increased use of e-payment channels for transactions. In the same period, CBN reported that the value of electronic payment transactions rose by 32.8% to ₦1.01471trillion up from ₦764.14billion of the same period in the previous year. To clarify the terminologies used in electronic finances, Ayo (2009) stated that there are two types of payment systems in electronic payment – e-payment, which is used mostly in conjunction with e-Commerce and m-payment which is used in m-commerce.

Just as the Sovereign Lord created everything male and female, positive and negative; there is also the other side of the digital age despite the overabundance of its positive benefits on accounting. The oversimplification of the accounting information generation and retrieval system gave rise to a number of hitherto unforeseen problems. These include:

- Increase in fraudulent activities as criminals tend to take advantage of less human control and over-exposure of important private information on the web or other public networks to hack into business financial databases and falsify or steal valuable information (remember the 419 or yahoo-yahoo boys);
- There are instances where information processed with the computer was based on faulty operating software thereby producing information with spurious accuracy; and if that is the case, of what use would that information be to the decision maker?
- Not all activities requiring financial analysis can be computerized; some of these activities may be so complicated and algorithmically distorted that only the complexity of human thinking can handle such;
- Computerized transactions leave less audit trails than manual transactions; and these may be required in certain circumstances and at certain periods to help in internal managerial analysis;

- In a society where basic infrastructure like electricity is at short supply, using computers to process accounting transactions could lead to problems worse than the manual method;
- What about education? The fact that about 60% of Nigerians are illiterates is already a natural barrier; and even among the so called educated persons, how many are computer literate?
- Information stored on computer media can easily be lost without hope of replacement; and
- The rapid development associated with the computer industry could lead to infrequent changes in computer hardware and consequently making the changeover from one system to another unpalatable.

CONCLUSION AND RECOMMENDATION

It will be evident that the world of accounting has embraced the digital age. This is visible from every aspect of modern business transactions. Most other organizations have followed suit as no entity want to be left behind in the digital race. To truly remain in contention, every discerning business entity must endeavor to embrace a responsive financial information processing system that can take advantage of favorable global economic events and ward off unfavorable ones. Accounting in the digital age has helped to leapfrog the benefits of doing business by creating values for corporate and non-corporate stakeholders far in excess of its costs. The digital age through the application of the internet or world wide web (www) has made the world a global village with this development, one does not need to physically visit a shopping complex to get his/her shopping done and so also with banking. All that one has to do to shop or bank is simply to own a smart phone. The author can proudly say that he makes most of his banking and shopping transactions at the very comfort of his bedroom. Needless to say that such new form of online businesses have quadrupled the economic benefits of productive activities in Nigeria and has opened up new employment opportunities for the youths. Ovia (2005) also agreed that e-payment has greatly enhanced the efficiency of transactions and payment system in Nigeria.

References

- Adeleh A., Hamidreza, M. & Enyi, E. (2014) *Accounting in Digital Age: Creating Values with Paperless Decision Support System*. UK: Publication Inc
- Alter, S. (1996). Defining Information System as work System; Implication for the IS field. *European Journal of Information System*, 1(1), 1-10
- Alnoor, B. (2020). *The Digital Data and Management Accounting; why we need to rethink research*. Retrieved online from www.digitalmarket.com
- Awoyelu, I. (2001). *Development of On-line Shopping Mart System for Developing Countries*. Lagos: Advance Publications
- Ayo, A. (2009). Design of a Secure Unified-payment System in Nigeria. *Journal Of Information System*, 5(2), 5-9
- Brandas, C, Ovidiu, M & Mariela, C (2012). *Study on the impact of E-commerce on Tax and Accounting Activity*. USA: PVT Publications
- Enyi, E. (2006). Applying Relative Solvency to working Capital Management. *The Break-even Approach*, 5(8), 12-20
- Ghodrati, H & Ghanbari, J. (2014). *A Study Relationship between Working Capital and Probabilit*. India: Grovel Inc

Impact of Management Information System on E-Commerce and Digital Markets

Nagadupa, C. (2012). *Stepping into Digital World; E-commerce*. India: Grovel Inc

Singh, P. & Agress, O. (2010). *Effect of working Capital Management on Firm*. New-Delhi: Prati Inc

Shahud, A, Keshav, K & Jenefur, M. (2013). *Review paper on E-commerce*. Kenya: Kenya Open University

Ovia, K. (2005). The Effect of Information and Communication, *IOSR Journal*, 8(4), 20-24