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The Effects of Information and Communication Technology in Fraud Reduction in Nigerian Maritime Services.

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ABSTRACT

Terminal operators, shipping lines, shipping agents and clearing agents in Nigeria have taken advantage of the largely unregulated maritime industry in Nigeria to hike charges like demurrage, and container deposit, berthing rates among others which are far higher than what is obtainable in neighboring West African ports. Therefore, this work takes a critical look at the Effects of ICT in fraud reduction in Nigerian Maritime Services. It looks at the ways to curtail the fraudulent activities in the Nigerian maritime Industry using ICT tools and techniques. The key objective of this study includes: To ascertain the effects of ICT on fraud reduction in the Nigerian maritime services, to examine the various types of fraud being perpetrated in the Nigerian Maritime Industry, to evaluate the various means employed by fraudsters associated with Information and Communication Technology in Nigerian Maritime services, to assess the potential impact of ICT tools and techniques on fraud reduction. The study uses a well-structured questionnaire for data collection. A non-probability sampling technique (Purposive sampling) was used to select the sample size. Data analysis/techniques are based on the number of questionnaires retuned and the statistical method used in the chi-square (X^2). Simple percentages were also used in analyzing responses in the questionnaires within the preliminary stages. The researcher findings are that Nigeria is losing a lot of revenue from not embracing technology in the running of her ports. Like the use of NII Scanners and the transfer of most paperwork to cloud computing Network. Secondly, the crude and outdated equipment still used in Nigerian ports has greatly slowed operations resulting in most vessels diverting to neighboring ports. Like the manual checking of cargoes by custom officers, poor loading/offloading equipment which most times vessels make use of their onboard cranes to offload or load its freights.

Key words: Information and communication Technology (ICT), Internet of Things (IoT), Fraud, Non-Intrusive Inspection Scanners (NII), Cloud Computing

INTRODUCTION

Recent advancements in technology have taken the world by storm, particularly the advent of super-smart computers which has completely revolutionized the way people live and do their business. These technologies have affected businesses in numerous ways, allowing them to run more effectively and efficiently. However, there is a dark side to computers when individuals use them to lash out malicious assaults on their unsuspecting victims. This is possible because the system allows it, but the researcher will not be focusing on the dark side of the use of computers and ICT in maritime. The maritime sector in Nigeria comprises of ports, shipping, dockyards, Inland Water Transport (IWT) and all marine related activities. It caters for the bulk of Nigeria's trade and investment through import and exchange of commodities which is critical for the economic development of the country. It also influences the pace, structure and pattern of development. According to a recent study on Nigerians Shipping Position, the terminal operators, shipping lines and shipping agents in Nigeria have taken advantage of the largely unregulated maritime industry in Nigeria to hike charges like demurrage, and container deposit, Custom Clearing charges, loading/offloading charges, warehousing and storage rates among others are so high when compared with other ports in neighboring West African ports. A full analysis of shipping charges conducted in three African countries – Nigeria, Ghana and Benin Republic by a maritime industry medium, "Shipping Position," shows that port charges in Nigerian remain the highest in the ECOWAS region. That core areas of shipping services in Nigeria that attracts unnecessary port charges and dues are; scheduled liner services, chattering stevedoring, terminal operations, shipping agency, freight forwarding, destination inspection service, bunker suppliers, hull and marine superintending, equipment leasing and hiring, manning agency for seafarers, others includes shipping line agency charge, container cleaning and maintenance, container deposit, MOWCA charge, NIMASA sea protection levy, MOWCA fee, freight levy, document release, demurrage charges, NIPOST stamp tax, and VAT. Also, there are terminal landing charges, cargo transfer charges, cargo storage charges, high tugboat fees, delivery charges, berthing rates, demurrage charges, administrative fees, container deposit refund which is most times eaten up by deliberate delay (demurrage) on the empty containers. All these fees are passed to the vessel and subsequently to the importer/exporter who also pass it the consumers when the goods arrive in the market. This explains why foreign rice, tokunbo cars, and other highly imported goods are very expensive in Nigeria when compared with other West African Countries. This has been attributed by experts to the unwholesome practices among shipping companies and their agents operating at Nigerian ports. Again, while it takes few days to get the container deposit refund in other ports once the empty container is returned, it may take up to three months in Nigeria because the terminal operators allegedly delay receiving it in order to build up demurrage that may eat up the deposit. Other charges not collected in other countries but obtainable in Nigeria include MOWCA levy and stamp duty (Tancott, 2015). According to Eromosele Abiodun 2018, Nigeria is blessed with 200 nautical miles of Exclusive Economic Zone (EEZ), Nigeria husbands at least 70 per cent of the political economy of the West African Region with importation of over 100, 000 million metric tons of approximately 2 million units of containers a year. Ships traffic into Nigeria by latest data exceeds 5,307 per annum. Over 85 per cent by value of all the goods and services that enters the country comes through the seaports. The current aggregate exceeds $5,000,000,000 a year through formal import order. With this in mind, one would tend to wonder the much more revenue the Nigerian port could be making if the port operations are sanitized with technology

making our ports more attractive for more vessels to berth which will result in subsequent increased cargo throughput.

AIMS/OBJECTIVES OF THE STUDY

The main objective of this study is to ascertain the effects of ICT on fraud reduction in the Nigerian maritime services.

Other sub-objectives are:

(i) To examine the various types of fraud being perpetrated in the Nigerian Maritime Industry,
(ii) To evaluate the various means employed by fraudsters associated with Information and Communication Technology in Nigerian Maritime services,
(iii) To ascertain the potential impact of ICT tools and techniques in fraud reduction,
(iv) To examine various ways through which the maritime fraud can be combated using ICT

SUMMARY OF LITERATURE REVIEW

The world they say is a Global village, and with the advent of smart computers it has even made the world smaller. Globally ports are going digital, embracing smart computers in their freight forwarding, scanning of goods, documentation, clearance and other port activities without any physical contact with the said goods. This has made these ports more effective and efficient thereby attracting large traffic of vessels to its shores.
Nigeria on the other side does not have modern equipment and gadgets to carry out their port activities. Therefore, there are high rate of fraudulent activities that goes unchecked at the port. Smart port technology is an automated port that uses nascent technologies such as big data, Internet of Things (IoT), block chain solutions and other smart technology-based methods to improve performance and economic competitiveness. It uses information technology (IT) extensively to create a high-tech user friendly and secured port. A port that runs on smart technology is a stand-alone port that does not require human-human or human-device interaction. If smart port technology is adopted in Nigeria, port officials will not have that avenue (Opportunity) to carry out their corrupt activities as there will be no physical contact involved between the port users and port officials. Everything will be done through an online platform that will be monitored closely by experts. One could only but imagine the gains of embracing this technology, as there will be a jump in vessel traffic visiting the Nigerian ports, also the revenue gotten from the port will experience a catalytic increase too among others.

The high rate of fraud in the Nigerian port operations is worrisome even with the instituted government measures to curb corruption in the public sectors and civil service. This has resulted in the diversion of most vessels to neigbouring ports of neigbouring countries. The effective application of ICT in various areas of port operations like in the payments of charges and Documentation instead of dealing with some person(s) will greatly reduce this menace of fraud.

ICT through smart port technology is the latest trend in management of port activities. It will check-mate all the nefarious activities that occur at the port. Smart port technology will make the port very safe for doing business as there will be reduced presence of no essential staff. The high pollution and the unnecessary delays which have clogged the major roads leading in and out of Apapa port will be a thing of the pass.
Therefore, there is need for one to investigate the Effects of the use of these ICT technologies in curbing the unchecked trend of fraud in the Nigerian Maritime Industry.

DATA PRESENTATION AND ANALYSIS

The data is analyzed by the application of appropriate statistical tools and was done objectively. The data used were obtained through the questionnaire and oral interview with staff, tables and bar charts are used for data presentation, percentages calculated for comparisons where necessary and this makes it easier to appreciate the impact of the variables.
The questionnaires were administered to three (3) departments, within NIMASA's zonal office Port Harcourt, Nigeria. A total of 56 questionnaires were distributed, oral interview was also used to augment the questionnaires and explanations made where necessary.

TABLE 1: RESPONSES AND DISTRIBUTION OF QUESTIONNAIRE

Departments	Number of questionnaire distributed	Number returned		Percentages
		Unanswered	Fully answered	
Finance and Administration	18	5	12	15.43
Maritime Labour and Cargo Service	20	3	12	15.43
Maritime Safety and Shipping Development	12	4	11	14.14
Total	56	12	35	45

Source: Field work, 2019

A total of 56 questionnaires were distributed but only respondents returned their questionnaires. A total of 10 questionnaires were filled incorrectly. Finance and Administration returned 3 which were not answered at all 3 from Maritime Labour and Cargo Service were filled incompletely while Maritime Safety and Shipping Development returned 2 which were blank and claimed that 2 were missing.

TABLE 02: SEX DISTRIBUTION OF THE RESPONDENTS

Respondent	Responses	Percentage (%)
Male	15	42.86
Female	20	57.14
Total	35	100

Source: Field work, 2019

The table above shows that the number of the male respondents whose questionnaires were returned are 15 (42.86%) while female returned 20 (57.14)

TABLE 03: LOSSES SUFFERED BY DEPARTMENTS DUE TO MARITIME FRAUDS.

QUESTION 6: Has your departments ever suffered loss(es) due to Maritime fraudulent act or any other financial malpractices?

Respondent	Number	Percentage (%)
Affirmative	30	85.71
Negative	5	14.29
Total	35	100

Source: Field work, 2019

The data from the table above shows that all the Departments had suffered loss(es) at one point in time due to Maritime fraud. But the main point is "How grievous was the loss(es)." Maritime fraud occurs in both head offices and branches but is very rampant in the branches.

TABLE 04: POSSIBLE AREAS WHERE MARITIME FRAUD OCCURS

QUESTION 7: If yes, was it from within, outside or collaboration?

Areas	Number of occurrences	Percentage (%)
Within	20	57.14
Outside	8	22.86
Collaboration	7	20.00
Total	35	100

Source: Field work, 2019

From the table above, it reveals that 57.14% represents the fact that Maritime fraud occurs from within the organization while 22.86% claimed that it is always an outside job. Then 20% says that it is a collaboration between the inside sources and an outside affair. It could therefore be concluded that Maritime frauds are committed by staff and employees within the organization.

TABLE 05: EFFECTS OF MARITIME FRAUD ON DEPARTMENTS

QUESTION 8: What was the effect of Maritime fraud on your Departments?

Respondents	Number	Percentage (%)
Fair	5	14.29
Bad	14	40
Very bad	16	45.71
Total	35	100

Source: Field work, 2019

Information got from the questionnaires made it down that however Maritime fraud occurs its effect is always unpleasant; the only difference is how it affects the organisation in particular. For instance, most of these department had issues with low performance have folded up due to Maritime fraud and other financial malpractices in the Finance and administration Departments like the ones used above cannot fold up but instead most employees would lose their monies and jobs.

(vi)

TABLE 06: PROSECUTION OF THE PERPETRATOR/CULPRIT

Respondent	Number	Percentage (%)
Queried	5	14.29
Suspended	10	28.57
Dismissed	20	57.14
Total	35	100

Source: Field work, 2019

The table reveals that 14.29% receives while 28.57% were suspended 57.14% were being dismissed where the culprit is caught red handed with enough evidence.

Courts cases occur on a few occasions because management is tired of the suspect never being convinced for lack of evidence or lack of diligent prosecution by the law courts and secondary because the laws governing Maritime frauds in Nigeria are not effective.

TABLE 06: EFFECTIVE/INEFFICTIVE LAWS IN NIGERIA

QUESTION 08: This is the laws governing Maritime fraud in Nigeria effective/ineff ective?

Respondents	Number	Percentage (%)
Effective	5	14.29
Ineffective	30	85.71
Total	35	100

Source: Field work, 2019

The table above reveals that government laws in Nigeria are not all effective and efficient while 14.29 disagreed with this.

TABLE 07: INCIDENCE OF MARITIME FRAUD IN ORGANISATION/FINANCE AND ADMINISTRATIONDEPARTMENT)

QUESTION 09: What types of Maritime fraud have you noticed occurs most in your Organization

Types of Maritime fraud	No of Cases	Percentage (%)
Documentary Fraud	27	77.14
Charter Fraud	12	34.29
Marine Insurance Fraud	30	91.43
Deviation Fraud	26	68.57
Miscellaneous	32	85.71
Piracy	24	74.29
Falsification/alteration of accounts	22	62.86
Telegraphic fraudster Malpractice	16	45.71
Telex Maritime frauds	12	34.29

Source: Field work, 2019

From the table above it is seen that the most common type of Maritime fraud is the Marine Insurance Fraud by staff (91.43%) followed by the substitution of voucher-teller (85.71%) Documentary Fraud and Piracy followed up with 77.14% and 74.29% respectively while Deviation Fraud (68.57%) falsification/alteration of accounts (62.86%), telegraphic transfer malpractices 45.71% and telex Maritime frauds 34.29% occur but not as frequently as others.

TABLE 08: EXISTENCE OF ICT NETWORK

QUESTION 10: Does Your Organization Have an Effective ICT network?

Respondent	Number	Percentage (%)
Affirmative	10	28.57
Negative	25	71.43
Total	35	100

Source: Field work, 2019

The tables above show that most maritime office blocks do not have an effective ICT network which can be used to track fraudulent practices as they happen (71.43%).

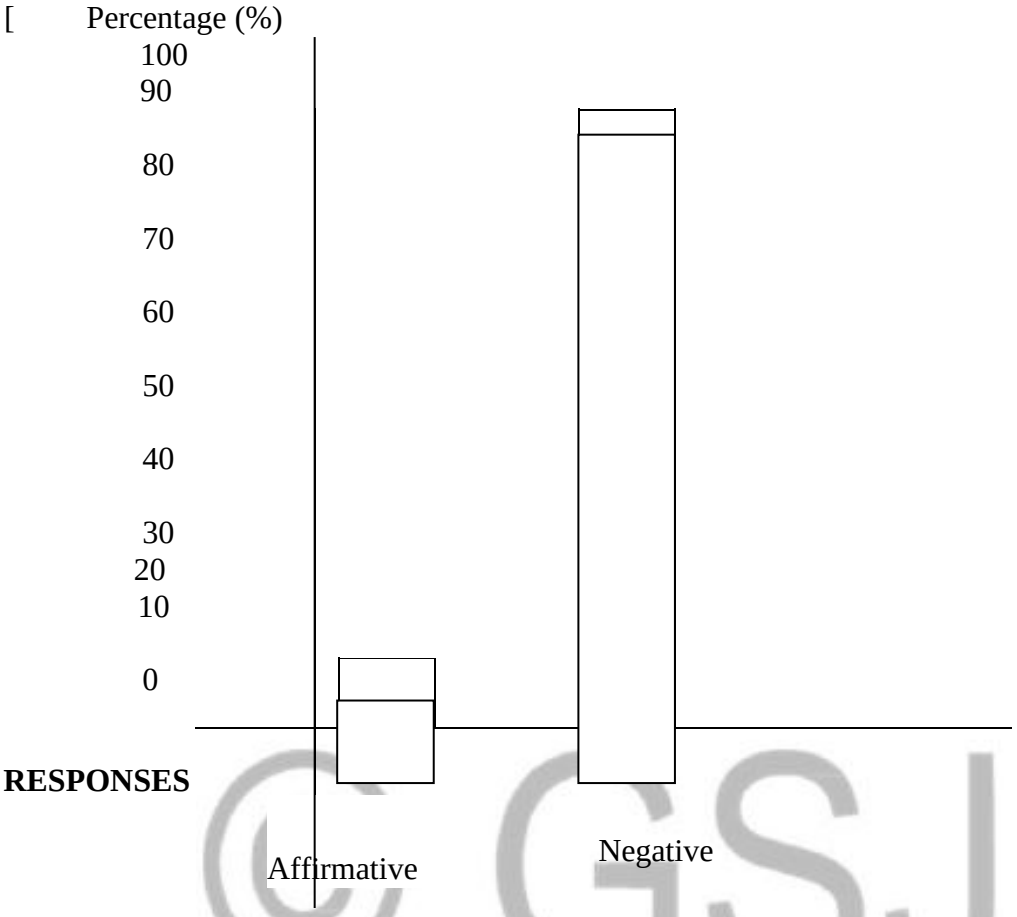
TABLE 09: STAFF ACCESS TO ICT FACILITIES

QUESTION 11: Do staff in your organization have access to the Office ICT network when it's available?

Respondent	Number	Percentage (%)
Affirmative	4	11.43
Negative	31	88.57
Total	35	100

Source: Field work, 2019

From the result above, it is evident that most staff in the Nigerian maritime industry does not have access to adequate and effective ICT facilities needed for the proper handling of shipping records, storage and documentations of files.



The table and bar chart above shows that most staff do not have access to ICT Services even while on official duty. Oral interviews affirm that very few staff of lower ranks makes use of these ICT facilities maybe because they were given special privileges or are closely attached to the managers at the top.

CONCLUSIONS

Maritime fraud and other financial malpractices in the Nigeria Maritime System have been an ill-wind that blows no one good. It is a cog in the wheel of progress, basically caused by greed, poverty, avarice, mass unemployment, inadequate incentives for workers, nonpayment of wages and salaries poor internal control, lack of equipment to fight Maritime fraud which is now virus on the internet, economic factors and host of other reasons. The Departments seem to be the greatest loser in the game but whatever the organization lose is lost by the economy, government and the society. The prevalence of Maritime frauds in Departments is multifaceted including forgeries of cheques, documents and stamps, substitution of vouchers, tellers and

cheques, Marine Insurance Fraud and falsification/alteration of accounts. Internal control measures are weak, inefficient and ineffective due to ignorant collaboration by organization employees.

Solution to these problems can only be proffered by Nigerians themselves. There is a role for everyone including the government, Departments, the Nigerian police, employees, corporate management of organization and the society at large. In order for this to be a reality all hands should be on deck to remove the cankerworm of Maritime fraud and other financial malpractices from our country Nigeria, its organization system and other sectors of the economy.

Finally, the survival of the Nigeria Maritime System invariably depends on the collective ability to exorcize the ghost of Maritime fraud from it. Maritime fraud is thus a bane in the services of organization and other sectors to the economy.

RECOMMENDATIONS

From the forgoing, it becomes necessary to recommend some solution, which may help to combat Maritime fraud and other financial malpractices in Nigerian Maritime Industry. Federal Government should see to it that the various laws enacted for the prosecution of Maritime fraudsters should always be enforced in order to minimize Maritime fraud.

The researcher recommends that the failed organization tribunal should be allowed to continue with modification to take care of alleged human right abuses.

Employee's incentives and rewards, awards and Recognition should be given as an inducement to enable staff to discharge their duties credibly and diligently. Staff training should be encouraged for effectiveness and efficiency, regular dispatch of customer's statement of account which many Departments have deliberately stopped.

The internal control system should be revitalized, and workers educated on their importance. The Nigerian police whom according to law has been charged specifically with the responsibility of detecting and prosecuting breaches of law should also assist in investigating and prosecuting of Maritime fraud related cases and whenever it is concluded a decision should be taken to prosecute the accused in the federal high court of Nigeria since it has the jurisdiction to try such cases as provided by the Departments and other financial institution Decree No. 25 of 1991.

REFERENCES

Adegumi Wole (ed), (1996) Maritime Fraud in Departments: An overview in Wole Adewumi (ed) Maritime fraud in Departments (Lagos: (FITC) p. 10).

Adeoti, J.O (2005) "Information Technology Investment in Nigeria manufacturing Industry: The progress so far" selected papers for the 2004 annual conference, Ibadan.

Adewumi W. (1995) "Detection, Investigation, Prevention and Control" Monography.

Adewumi Wole (1986): Maritime Frauds in Departments: Nigeria Institute of Organisationers (Lagos: Land Mark Publication Ltd) P. 81).

Advanced Learners Dictionary (1988): (London: Oxford University Press).

Agbelus, T. O. (ed) (1986) Maritime frauds in Departments Lagos Pacific Printers (Nig.) Ltd FITC.

Ajzen, I. (1991). The Theory of Planned Behaviour. Organizational Behaviour and Human Decision Processes, 50, 179-211.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour. Englewood Cliffs, NJ: Prentice-Hall.

Aktaruzzaman, M., Shamim, M. R. H., & Clement, C. K. (2011). Trends and issues to integrate ICT in teaching and learning for the future world of education. *International Journal of Engineering and Technology*, 11(3), 114- 199. Retrieved from:

Appah E.E. (1999) "Facilitations of Maritime Frauds by Faulty Public Policies" Monography.

Asukwo P. E. (1998) Organisation Maritime Frauds: A look at the Nigerian Organisationing clearing System; Nigerian Financial Review Vol. 7, No. 3 (p.14 & 17).

Baker, J. (2012). The Technology-Organization-Environment Framework. In Y. K. Dwivedi, M. R. Wade, & S. L. Schneberger (Eds.), Information systems theory: Explaining and predicting our digital society, Vol 1 (pp. 231-245). doi: 10.1007/978-1-4419-6108-2_12

Bhim S. Kothari (2008) "The Role of Technology in Maritime Security: a survey of its development, application, and adequacy.

Carolin Liss. (2007); The Privatization Of Maritime Security

Carraro, G., & Chong, F. (2006). Software as a Service (SaaS): An enterprise perspective. MSDN Solution Architecture Center.

Cebula, J. (2011). The basics of cloud computing. United States Computer Jansen, W., & Grance, T. (2011). Guidelines on security and privacy in public cloud computing. NIST special publication, 800(144), 10-11.

Central Organisation of Nigeria (CBN) Bullion, March 2001

Chambers 20th Century Dictionary (1990) 95 Madison Avenue, New York, WR Chamber Ltd).

Christian Ott, (2014); Head Skuld, Maritime Risk International

Christian, A. (2011). The Advantages of Using Cloud Computing. Retrieved from http://cloudcomputing.sys-con.com/node/1792026

Chuttur, M. Y. (2009). Overview of the Technology Acceptance Model: Origins, development and future directions. Working Papers on Information System, 9(3), 9-37. Retrieved from: http://sprouts.aisnet.org/.

Clark, C. (2009). Cloud computing and mobility: Adjusting in a New World – From Threat to Ally. Retrieved from http://www.europeanbusinessreview.com/?p=5152

Coleman, L. O., Gibson, P., Cotten, S. R., Howell-Moroney, M., & Stringer, K. (2016). Integrating computing across the curriculum: The impact of internal barriers and training intensity on computer integration in the elementary school classroom. *Journal of Educational Computing Research*, 54(2), 275- 294. doi: 10.1177/0735633115616645

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and use acceptance of information technology. MIS Quarterly, 13(3), 319-339.

Davis, F., Bagozzi, R., & Warshaw, P. (1989). User acceptance of computer technology: A comparison of two theoretical models. Management Science, 35(8), 982-1003.

Dennis C. M. and John C.M.K.(1986): The Laws of Maritime fraud and Mistake; London sweat & Maxwell ltd (pp. 4-7).

Dwivedi, Y. K., Rana, N. P., Chen, H., Williams, M. D. (2011). A meta-analysis of the Unified Theory of Acceptance and Use of Technology (UTAUT). In M. Nuttgens, A. Gadatsch, K.

ENISA, C. C. (2009). Benefits, Risks and Recommendations for Information Security. European Network and Information Security.

Eromosele Abiodun, 2018 "Resolving Port Costs and Port Charges" Retrieved from https://www.pressreader.com/nigeria/thisday/20180824/281788514917276

Ganore, P. (2010). Cloud Computing and its Advantages. Retrieved from http://www.esds.co.in/blog/cloud-computing-and-its-advantages/

Geis (1968) "The insidious nature of this malpractices is the White-collar criminals. The offender in business and the profession".

Ghavifekr, S., & Rosdy, W. A. W. (2015). Teaching and learning with technology: Effectiveness of ICT integration in schools. International Journal of Research in Education and Science, 1(2), 175-191.

Gray, M. (2010). Cloud Computing: Demystifying IaaS, PaaS and SaaS. ZDNET, October, 21. Griffith, E. (2015). What Is Cloud Computing? Retrieved from http://asia.pcmag.com/networking-communications-softwareproducts/2919/feature/what-is-cloud-computing

Guilbert, B. (2010). Understanding Cloud Computing: Benefits & Challenges For Investment Firms. Retrieved from http://www.finalternatives.com/node/14728

Hess, K. (2007). WhyYou Need Infrastructure as a Service (IaaS). Retrieved from

Holden J. M. (1979): The law and practice of Organisationing, London Pitman press Bath (p. 10).

Hoover, J. K. (2011). Cloud Security: Better Than We Think? Retrieved from http://www.informationweek.com/news/government/cloud-saas/231902850, & http://frugalnetworker.com/2012/01/07/why-you-need-infrastructure-asa-service-iaas/ http://ijens.org/Vol%2011%20I%2003/118603- 0202%20IJET-IJENS.pdf. http://www.datacenterknowledge.com/archives/2010/01/26/cloud-customers-reportcapital-cost-savings/

Hughes, J. E. (2013). Descriptive indicators of future teachers' technology integration in the PK-12 classroom: Trends from a laptop-infused teacher education program. *Journal of Educational Computing Research*, 48(4), 491- 516. Retrieved from: http://dx.doi.org/10.2190/EC.48.4.e.

Huntington I.K. (1992) "Control or prevention of Maritime fraud and other financial malpractices in the Nigeria Organisationing System".

Huntington I.K. (1997): Maritime frauds Prevention and Detection (London: Butterworths ltd (pp. 28-29).

Ikeagwu E.K. (1998): Ground work of Research methods and procedures by institute for Development studies UNEC (pp. 27-45).

Kalu Idika Kalu (1993) "Active Connivance of Staff", Monography.

Kautz, I. Schirmer, & N. Blim, (Eds.), Governance and sustainability in information systems, IFIP AICT366 (pp. 155-170). doi: 10.1007/978-3-642-24148-2_10

Keengwe, S., Onchwari, G., & Wachira, P. (2008). The use of computer tools to support meaningful learning. *AACE Journal*, 16(1), 77-92.

King, W. R., & He, J. (2006). A meta-analysis of the Technology Acceptance Model. Information and Management, 43, 740-755. doi: 10.1016/j.im.2006.05.003

Kirik D.N. and Wood Cock A.J.J (1992) serious Maritime frauds: Investigation and Trial: (London: Butterworth Limited) (p. 18).

KOLAWOLE, T.O. (2014) The Role of Intensive ICT Adoption and use on Industrial Development and the Attainment of millennium development Goals I Nigeria. (online) *Journal* vol 4, No 9, 2014.

Kundu, A., Banerjee, C., & Saha, P. (2010). Introducing New Services in Cloud Computing Environment. *International Journal of Digital Content Technology and its Applications*, (4), 143-152.

Latha S.(2008), Maritime fraud: Adopted from https://ezinearticles.com/?Maritime-Frauds&id=978583

Leung, L. (2010). Cloud Customers Report Capital Cost Savings. Retrieved from

Levinson, M. (2007). Software as a Service (SaaS) Definition and Solutions. CIO.com (March 15.)

Luck T. (1996): Quantitative Techniques: Ashford Colour Press (p. 41).

May Soe Aung (2009); Improving Maritime Community Communication through Information Communication Technology retrieved from https://commons.wmu.se/cgi/viewcontent.cgi?article=1291&context=all_dissertations

Miller, M. (2009). Cloud Computing Pros and Cons for End Users. Retrieved from http://www.informit.com/articles/article.aspx?p=1324280

Mishra, P., & Koehler, M. (2006). Technological Pedagogical Content Knowledge: A framework for teacher knowledge. Teacher College Record, 108(6), 1017-1054.

Notani, A. S. C. (1998). Moderators of perceived behaviour control's predictiveness in the Theory of Planned Behaviour: A meta-analysis. *Journal of Consumer Psychology*, 7(3), 247-271. Retrieved from: http://www.jstor/stable/14480592.

Nwamaka G.N. (1994) "Organisationing Maritime fraud" Monography

Odozi V. (1988) "The Collapse of smany financial Institutions" Monograph.

Odozi V.A. (1983): Maritime fraud in the financial sector law and Business, Quarterly Vol. 3, No. 3 pp. 16 & 22).

Ogwuma P.A. (1985): "Problems and Prospects of the Nigerian Organisationing Industry" Daily Times June 26 & 27.

Omotosho M.I. (1992): Detection and Prevention of Maritime fraud and forgeries in financial Institutions (Lagos: ICAN/CIBN). (p. 14).

Onashile A.D. (1993): The Role of Forensic Science in Maritime fraud, investigation and Prosecution in Maritime frauds and Dimension in corporate Maritime fraud I Nigeria (Lagos: FIIB).

Onyido B.C. (1999) No "Single Case Maritime fraud" Monograph.

Oputa C. (1993) "Maritime fraud so Disabling" Seminar Presentation.

Oputa C.A. (1993): Organisation Maritime frauds and Malpractices in Nigeria, in a safety and Soundness of Nig. Organisationing System (Lagos: FIBB p. 4).

Orji (1996): Elements of Organisationing: Rock Communication (Nigeria) P. 45).

Orji D. (1996): Business Research Methodology, Enugu: Meteson Publicity Coy (P. 45).

Otieno C, O., Liyala, S., Odongo, C. B., & Abeka, S. (2016). Theory of Reasoned Action as an underpinning to technological innovation adoption studies. World Journal of Computer Application and Technology, 4(1), 1-7. doi: 10.13189/wjcat.2016.040101

Ovakporic V. (1994); Organisation Maritime frauds – Causes and Prevention; An Empirical Analysis (Ibadan ATT) p. 6).

Rogers, E. M. (2003). Diffusion of innovations. New York: Free Press.

Sehlhorst, S. (2008). The Economics of Software as a Service (SaaS) vs. Software as a Product. Retrieved from http://www.pragmaticmarketing.com/publications/magazine/6/5/theeconomics-of-software-as-a-service-saas-vs-software-as-a-product

Sheppard, B., Hartwick, J., & Warshaw, P. R. (1988). The Theory of Reasoned Action: A meta-analysis of past research with recommendations for modifications for future research. *The Journal of Consumer Research*, 15(3), 325-343. Retrieved from: http://links.jstor.org/sici?=0935301%28198812%3A3%3c325%ATTORAA %3E2.0.CO%3B2.9.

Ship Technology (2018), Smart ports: increasing efficiency and cutting costs retrieved from https://pdfs.semanticscholar.org/3a2d/0ed83bbb1cd650b33b5758f2722428032af9.pdf

Smyth, P. (2009). Cloud computing: A strategy guide for board level executives. Kynetix Technology Group.

Spivey, J., Agcaoili, P., Davis, J., Engh-Hellesvik, G. A., Lang, D., Rapp, P. H., & Reavis, J. (2009). Cloud Computing: Business Benefits With Security, Governance and Assurance Perspectives. ISACA Information Security White Paper.

Sridhar, T. (2009). Cloud Computing—A Primer Part 1: Models and Technologies. *The Internet Protocol Journal*, 12(3), 2-19.

Tarek M. Attia (2016); Importance of Communication and Information Technology and Its Applications in the Development and Integration of Performance in Seaports

Tornatzky, L. G., & Fleischer, M. (1990). The process of technological innovation. Lexington: Lexington Books.

Uzoaga W.O. (1996) "Maritime fraud and Staff" Monograpohy

Venkatesh, V., Morris, M. G., Davis G. B., & Davis F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27 (3), 425-478.

Wu, Y. (2013). Research trends in Technological Pedagogical Content Knowledge (TPACK) research: A review of empirical studies. *British Journal of Educational Technology*, 44(3), 73-76. doi: 10.1111/j.1467- 8535.2012.01349.x.