IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) ON PRESENT DAY BUSINESS

ENVIRONMENT

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ABSTRACT

This research work focuses on the impact of information and communication technology on present day business environment in Animal care service consult. The population was based on 200 employees and the sample size of 120 was drawn. For the purpose of collecting data, a structured questionnaire requesting for vital information necessary to complete the research work was issued to the respondents. Simple Regression method using Ordinary Least Square was used to relate variables on ICT and variables on business performance. Finding revealed that ICT as a positive impact on business performance by improving profitability of organization. The study concluded that entrepreneurs should adopt the usage of ICT on their business process and exploit to improve performance. Therefore, the study recommend that ICT policy makers need to move beyond rhetoric and intensify real and concrete efforts that would support reducing mass illiteracy among the poor communities.

Keywords: ICT, Business environment, Profitability, business Performance, Entrepreneurs, Organization

1.0   INTRODUCTION

The 21st century has embraced itself with information and communication technology has one of the driving forces behind accelerated business growth in the world. Attom (2017).

According to French (1996) information technology (IT) is defined as any technology which supports activities involving the creation, storage, manipulation and communication of information, together with their related methods, management and application. Information and communication is a fundamental ingredient for globalization as hinted by that computer trading has therefore made global market technically possible (Samuels et al, 1990).

It is evident that information and communication technology has brought immense innovation, improvements and advanced ways of doing business in a speedily manner in the developed economies. Technology is no longer an after through in forming business strategy but the actual cause and driver. Hence, currently the use of information system resources such as computers, internet e-business, point of sales (POS) and other ground breaking business practice is a common feature of business environment in the advanced world.

The modern business environment is not only complex but also extremely dynamic interminable and with cutting edge improvement characterized by multifaceted customer needs and want that must be met with accuracy momentum in order to ensure the survival and growth of business operation.

According to Faudon and laudon (2010) information technology is one of the important tools that managers (businesses) use to cope with charge.

In the past few decades there has been a revolution in computing and communications, and all indications are that technological progress and use of information technology will continue at a rapid pace.

Accompanying and supporting the dramatic morasses in the power and use of new information technologies has been the declining cost of communication as a result of both technological improvements and increased competition. In addition the uses into which information is being put has gone beyond mere stewardship function but also into that of planning, forecasting input for resource allocation, decision and performance measurement and control.

Although, information and communication technology in business environment has many advantages and likewise disadvantages attached to its adoption in business operation.

These problem include: inadequate skilled labour, that is specialist in the field of computer training could be lacked in the organization and this may delay or slow down business operations or services delivery.

Another problem attributed to information and communication technology is business environment is the insecurity of vital and confidential information of the organization and their customers, because anyone who is a professional or skilled in computer application on easily hack to access the information and manipulate or temper with restricted information which can be detrimental to the company and its customers. Also the problem of computer vines and computer fraud are cancer worm that has eating deep with the bone narrow of information and communication technology today.

The broad objective of the study is to determine the impact of information and communication technology in present day business environment in Nigeria using ordinary least square method to relate variables on ICT and variables on Business performance.

2.0 LITERATURE REVIEW

2.1 CONCEPTUAL FRAMEWORK

ICT (Information and Communication Technology) encompasses all of the technology that we use to collect process and store information. It refers to hardware software (computer program) and computer network. This concept involves transfer and use of all kinds of information ICT is the foundation of economy and a driving force of social changes in the 21st Century.

Distance is no longer issue when it comes to accessing information; for example working-from-home distance learning, e-banking and e-government and e-commerce are now possible from any place with an internet connection and a computing device.

2.1.1 Hardware Basics

The concept of hardware includes computer components the physical and tangible parts of the computer i.e electrical, electronic and mechanical parts which comprises a computer.
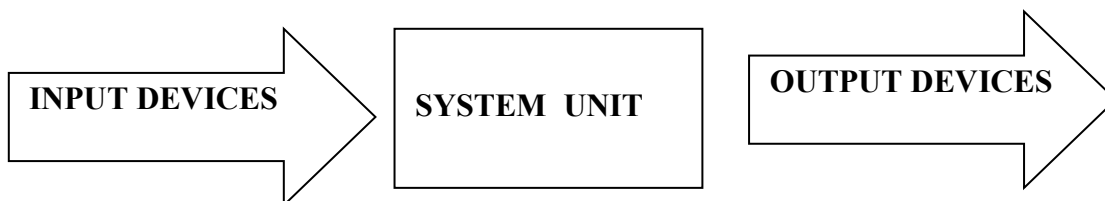
INPUT DEVICES → SYSTEM UNIT → OUTPUT DEVICES

Fig 1: Computer working principle

Figure 1 above describes the computer working principle. Computer working principle data are entered into a computer via input devices, they are processed and stored in a system unit and are finally displayed by the output device.

2.1.2 Personal Computer (Pc)

Personal computer as the name suggests is intended for personal use, as opposed to the server, which is used by a larger number of people simultaneously from different occasions often via

terminals. If you do not intend to move your computer frequently from one place to another and at the same time you want maximal price/performance ratio, then you should use a desktop computer. In comparison to laptops or tablet computers. It is much larger in size, inconvenient to carry/move consumers more electricity but has a much better performance ratio. Also, they are much easier to upgrade.

2.1.3   Laptop or Tablet Pc

Laptop or tablet PC is used by individuals who have the need to travel with a computer or simply use them for aesthetic reasons when computing power in not an issue. Laptop computer as opposed to tablet PCS, more closely resemble a personal computer when it comes to data input. Data entry is done via keyboard and mouse, while the tablet PC data entry is done via touch screen.

Unlike desktop computers, notebooks and tablet PCS are optimized for portability, low power requirements at the expense of performance and can be used (for a limited period of time. i.e until the batteries are depleted) without connection to the power grid. In order to prepare a laptop or a tablet computer for use without a power connection, it is necessary to recharge the batteries.

2.1.4   System Unit

The system unit contains a computers vital parts. These are two basic types of cases:

➢ Desktop casing is placed on a desk in a horizontal orientation.

➢ Towers come in 3 sizes (mini-tower, mid- and full tower) and it's vertically orientated.

The Motherboard is computer basic circuit, to which all computer components are connected, directly or indirectly. Devices are connected to the motherboard through a system bus.

System bus connects all devices ensures data flow and communication between different devices using predefined protocols.

Central processing unit (CUP or Processor) is a central part of a computer (and can be referred to as the computers "brain". It manages all other computer parts, monitors their mutual communication and performs arithmetic-logical operations processor speed is measured in hertz (or megahertz or gigahertz). Most famous manufacturers for personal computer processors are intel and AMD.

2.1.5 Cache

Is a small capacity memory which allows quick access to data. By storing data from working memory in cache, the speed of communication between processor and RAM is increased. Microprocessors use three levels of fat cache, L1, L2 and L3 to store often used data.

ROM (Read Only Memory) is a type of payment internal memory that is used solely for reading RAM (Random Access Memory) is a working memory in which analyzed data and programs are stored, while computer runs.

2.1.6 Input Devices

MOUSE: Is an input device that facilitates work with the graphical user interface (GUI). The mouse transmits hand movements and the screen displays the cursor (mouse pointer) movements.

TRACKBALL: unlike a mouse is not movable. Hand movements are transmitted to the screen by ruling the ball which is located on the upper side of the device.

KEYBOARD: Is used for data entry and issuing commands. They can also be wired or wireless other input devices are Scanner, Touch Pad, Light pen, joystick, webcam etc.

2.1.7 Output Devices

Monitors: Displays image from the computer it enables us to see, work and control computers.

Projector: Is an device used for project a computer image or other image from independent devices, such DVD players, Blu-ray player etc. onto canvas or a wall.

Printer: is a device used for printing from a computer onto a paper.

2.1.8 Software

Software is unlike hardware, it is an intangible part of the computer. It consist of a sequence of commands, written according to strict rules. Programs are written by programmers in various programming languages.

2.1.9 Networks

Computer networks is comprised of at least two, connected, by wire or wireless, computers that can exchange data i.e connecting computers into a network and some of them are;

➢ Exchange of data between users that have network access

➢ Access to shared devices, such as network printers, network disks etc.

➢ Enables users communication and socializing etc.

Internet is the most famous and most widespread network with nearly 2 billion users and the number of users is still growing.

2.1.10 Types Of Network

➢ LAN (Local Area Network): a network that covers a relatively small geographical area-it connects computers within a firm or household by wire.

➢ WLAN (Wireless Local Area Network) a network that covers a large geographical area. It connects a greater number of computers and local networks.

2.1.11 Connection Methods

➢ Mobile-connecting by using a mobile network (GPRS, EDGE, UMTS, ITSPA)

➢ Satellite- commonly used in parts of the world where there is no proper infrastructure and there is no other way of accessing the internet.

➢ Wireless (wi-fi) – data is transferred between computers by using radio frequencies (2,4 CaHz) and the corresponding anathemas.

➢ Cable-connecting to the internet through television cable network using a cable modern television cable network using a cable modern

➢ Broadband is characterized by a high-speed data transfer permanent access to the internet and thus the risk of an authorized access to the network or your personal computer.

2.2 EMPIRICAL FRAMEWORK

Today's business world has been deeply influenced by information and communication Technologies (ICT) and the application of ICT among business is widespread. ICT are rapidly changing global production, work and business methods, trade and consumption patterns in

between enterprises and consumers. Every business must bring ICT into their business and take advantage of its benefit.

In the developed countries including Australia and United Kingdom small and medium enterprises (SMEs) account for more than half of all business and over half of all employment. Nowadays small business are increasingly using and adopting information and communication technology due to the advent of personal computer, cost- effectiveness and cheaper ICT products. Alberto and Fernando (2007) argued that the use of ICT can improve business competitiveness with internet providing numerous opportunities for SMEs to compete equally with large corporations.

As the world economy continues to move towards increased integration as a result of advances in information communication technology, and the increasing reductions in trade barriers, some of the greatest opportunities for small businesses will derive from their ability to participate in the regional and international markets Mutala and Brakel (2006)

Adoption of the ICT is considered to be a means to enable these businesses to compete on a global scale, with improved efficiency and closer customer-supplier relationships (Chong et al., 2001). In this respect, SMEs should consider information and communication technology (ICT) as an important approach in their business to take competitive advantage from the global markets (Mutsaers et al 1998).

Moreover, ICT is a resource of SMEs which may help them to access and contribute to in order to enhance its competitiveness (Swash, 1998).

Some empirical studies by Bartelsman and Doms (2000), Brynjolfsson and Yang (1996), Dedrick et al (2003), Kohli and Devaraj (2003) and Melville et al (2004) confirms the positive effect of information and communication technology (ICT) on firm performance in terms of

productivity profitability, market value and market share, which all falls under the umbrella "Business Environment".

This paper aims to investigate the impact of ICT in modern days business environment. a variety of internal and external factors have been identified as preventing many SMEs from implementing ICT. The study in this paper work provides more in depth information about the reasons why local SMEs are reluctant to adopt ICT for their business activities. Identifying the major reason may help the industry or government to provide appropriate information and support thus enhance ICT usage.

Most of this empirical research are based on large companies, and SMEs in fact are characterized by the lack of knowledge about the real advantage that ICT could add to their business (Palvia 1996).

3.0   METHODOLOGY

A survey technique was used by administering a Five likert scale questionnaire to 200 respondents ans 120 copies of questionnaires were returned. The Data collected were analysed using ordinary Least Square Method to test the hypothesis.

4.0   REGRESSION ANALYSIS

HYPOTHESIS I

H*o*: There is no significant relationship between Ict usage/adoption and Business environment.

From table 4.1.1, there is a high positive relationship between Ict usage/adoption and the business environment with correlation coefficient of 0.805 (R=0.805) and coefficient of determination of 0.648. The adjusted R-square is 0.645 indicating that about 64.5% variation in business environment is accounted for by ICT usage or adoption.

Table 4.1.1 **Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805[a]	.648	.645	1.669

Source: Field Survey, October, 2017

a. Predictors: (Constant), ADOPTION

Table 4.1.2 is the coefficients table, the model is:

BUSENVR = 1.493 + 1.217ADOPTION

The model indicates that a unit change in ICT adoption will cause 1.217 unit increase in business environment. ICT adoption/usage is significant.

Table 4.1.2 **Coefficients[a]**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.493	.683		2.187	.031
	ADOPTION	1.217	.083	.805	14.724	.000

Source: Field Survey, October, 2017

Table 4.1.3 **ANOVA[a]**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	604.033	1	604.033	216.803	.000[b]
	Residual	328.759	118	2.786		
	Total	932.792	119			

Source: Field Survey, October, 2017

In order to test the validity of the model obtained, we go further by getting the ANOVA table, the F-value is 216.803 and the p-value is 0.000. This indicates that the model is adequate and sufficient in relating the business environment with the ICT usage/adoption. Hence, the model is significant since the p-value is less than the significance level, we then accept the alternative hypothesis and conclude that there is a significant relationship between Ict usage/adoption and Business environment.

HYPOTHESIS II

H*o*: There is no significant relationship between Ict usage/adoption and Business performance.

From table 4.1.4, there is a high positive relationship between Ict usage/adoption and the business performance with correlation coefficient of 0.632 (R=0.632) and coefficient of determination of 0.399. The adjusted R-square is 0.394 indicating that about 39.4% variation in business performance is accounted for by ICT usage or adoption.

Table 4.1.4 **Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.632[a]	.399	.394	2.418

Source: Field Survey, October, 2017

 a. Predictors: (Constant), ADOPTION

Table 4.1.5 is the coefficients table, the model is:

PERFORMANCE = 1.493 + 1.217ADOPTION

The model indicates that a unit change in ICT adoption will cause 1.060 unit increase in business performance. ICT adoption/usage is significant.

Table 4.1.5 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.785	.989		1.805	.074
	ADOPTION	1.060	.120	.632	8.850	.000

Source: Field Survey, October, 2017

a. Dependent Variable: PERFORMANCE

Table 4.1.6 **ANOVA[a]**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	457.960	1	457.960	78.317	.000[b]
	Residual	690.006	118	5.848		
	Total	1147.967	119			

Source: Field Survey, October, 2017

a. Dependent Variable: PERFORMANCE

b. Predictors: (Constant), ADOPTION

In order to test the validity of the model obtained, we go further by getting the ANOVA table, the F-value is 78.317 and the p-value is 0.000. This indicates that the model is adequate and sufficient in relating the business performance with the ICT usage/adoption. Hence, the model is significant since the p-value is less than the significance level, we then accept the alternative hypothesis and conclude that there is a significant relationship between ICT usage/adoption and business performance.

5.0   CONCLUSION

This paper discuss about the impact of ICT on present day business environment. An analysis was carried out in which ordinary least square method was utilized to compare the influence ICT on business performance and business environment.

Based on the above findings it's concluded that ICT effectiveness is without doubt one of the most debated subject for both Information System researchers and practitioners, as the continuous development of innovations constantly pushes companies to increase ICT adoption. The results of the analysis above shows that there is a significant relationship between Ict usage/adoption and Business environment and there is also a significant relationship between ICT usage/adoption and business performance. Therefore, ICT usage and adoption has a great influence on business performance and business environment

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