

Information Technology for Effective Supervision of the Marketing Executives in the Banking Industry in Nigeria

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Abstract:

New technology has greatly increased the choices for communicators. The study was undertaken to examine how information technology enhances the supervision of the marketing executives in the banking industry in Nigeria. A typical three-tier information model guided the study. The marketing executives of eight selected consolidated banks in Lagos, commercial city of Nigeria formed the population of the study. A sample of 180 marketing executives was determined using a percentage formula. Kendall's τ Test statistics was used for the hypothesis testing. A calculated Chi-square result of 230.691 was obtained, which is significant as P-value of $0.000 < 0.05$. Furthermore, with the Kendall's coefficient of 0.641, an agreement among the responses was established that the personal computer, in both desktop and portable form, is a superb message centre for managers receiving and relaying information quickly to the marketing executives. These systems would provide a way to minimize the time spent on report writing, yet at the same time, would improve the accuracy of the marketing information collected. Banks that have computerized support system would report significant improvements in the productivity of their marketing executives and management effectiveness in the banking industry in Nigeria.

Keywords: Information Technology, Effective Supervision, Marketing Executives, Personal Computers, Superb Message centre, World Wide Web, Three-Tier Networking, Banking industry in Nigeria.

Introduction

Supervision of the marketing executives means day-to-day operation and control of marketing executives. More strictly, it refers to direct working relationship between the marketing executives and their supervisors. The manager who checks with the marketing executives each morning to see what their plans are for the day is directly supervising their activities. Many other Managerial actions can constitute an indirect supervision, such as auditing expense accounts or appraising marketing performance. Many banks in Nigeria employing marketing executives often hire head of marketing (separate from head of operation) whose sole assignment is to supervise the activities of the marketing executives. The amount and nature of the supervision given the marketing executives is part of the bank's strategies marketing plan. Some banks can decide to hire experience proven performers and then turn them loose with little supervision. Others can hire inexperienced fresh graduates and then, train and supervise them closely. The supervision decision is a portion of the overall strategic decision as to how important the marketing executives is in accomplishing the banks' goals supervision costs in the banking industry are significant, as management does not want to spend more than necessary. Over supervising can hamper the performance of the marketing executives. While some supervising can improve morale, too much has the opposite effect. The able, independent marketing executives sometimes resent managers who hold them on too tight a rein, as many executives go into marketing to escape such direct control. The dangers of under supervision can be much the same as those of over supervision. Morale can suffer, and cost can rise. A Marketing executive who is not getting the attention or supervision needed to do the job properly is likely to develop a poor attitude. More important, performance can be related to supervisory behaviour, and without proper supervision to improve performance, such market marketing executive may eventually be fired or quit (Nwosu, Uduji and Nnabuko, 2010).

New technology has greatly increased the choices for supervisors in the banking industry in Nigeria. The personal computers, in both desktop and portable form, can be a super message center for managers receiving and replying information quickly around their marketing executives. The computer based information technology began with the advent of mainframe computers in the 1950s. These machines allow industry to automate information storage and retrieval for the first time. By 1964 individual work station were linked to a firm's mainframe, allowing individuals to share information stored on the mainframe. The development of floppy discs in 1971 allowed users to share information easily with each other. In the early 1980s stand-alone personal computer were introduced to business as a new standard. Soon, these computers were being linked together within a firm as a Local-Area Network (LAN), so that users could share information among themselves without using a mainframe. Network technology convert data to on or off signals, in contrast to analog technology, which sends signals in virtually infinite increments. Servers, were introduce that could store

information for users liked to them, which allowed the development of data warehouses. The internet provided a means for computer to connect outside a local-area network using telephone lines (Hill, 1995 and Gordon, 1994).

As information become more easily shared, the equipment become more powerful. Microprocessors, such as Intel's Pentium and Apple's G4, are able to make complex calculations almost instantaneously. Internet connections move beyond standard telephone lines to broadband and DSL, allowing data to be transmitted even more quickly. Computer no longer have a physical connection to a network. Wireless net-working allow users to access and provide information using the same technology as cellular and digital telephone. A signal is sent to a satellite or central location and then bounced to its destination. Wireless systems currently have some drawbacks, which no doubt will be resolved just as other computer equipment drawbacks have been resolved. Currently, if a wireless data transmission signal is lost even momentarily, the transmission ends and incomplete data may have been transmitted. Security and privacy of information transmitted using wireless technology may also be compromised. As noted earlier, a LAN is a type of computer network. Other types of networks used by firms include the internet, extranets, and intranets. Firms use networks in many ways, including for e-business. E-business, also called e-commerce, is the process of conducting business transaction using online resources. Information posted on networks is a form of intellectual property and can be covered under copyright law, with a link to the firm's copyright statement provided on every screen of the site. Firms also need to be cautioned about posting information from other sources covered by copyright. Making this type of information available without permission can leave a firm liable to lawsuits and damages (Gomez-Mejia and Balkin, 2002; Meredith, 1981 and Thieranf, 1994).

Hence, this study was undertaken to explore how information technology enhances effective supervision of the marketing executives in the banking industry in Nigeria. The investigation centered on finding out if the personal computer in both desktop and portable form can be a superb message center for managers receiving and relaying of information quickly to the marketing executives in the Nigerian banks.

Theoretical framework

The study is based on a typical three-tier information model, consisting of client's servers, and a mainframe as shown in figure 1. The tumbling price of computing power and information and the use of wireless communication have facilitated networking, the exchange of information through a group or network of interlinked computers. At outer nodes of a typical three-tier network are the personal computers (PCs) that sit on the desk of individual users. These personal computers, referred to as client's are linked to a local server, a high-powered midrange computer that 'serves' the client personal computers. Servers often store power-hungry software programs that can be run more effectively on the server than on an individual's personal computer (Jones and George, 2003).

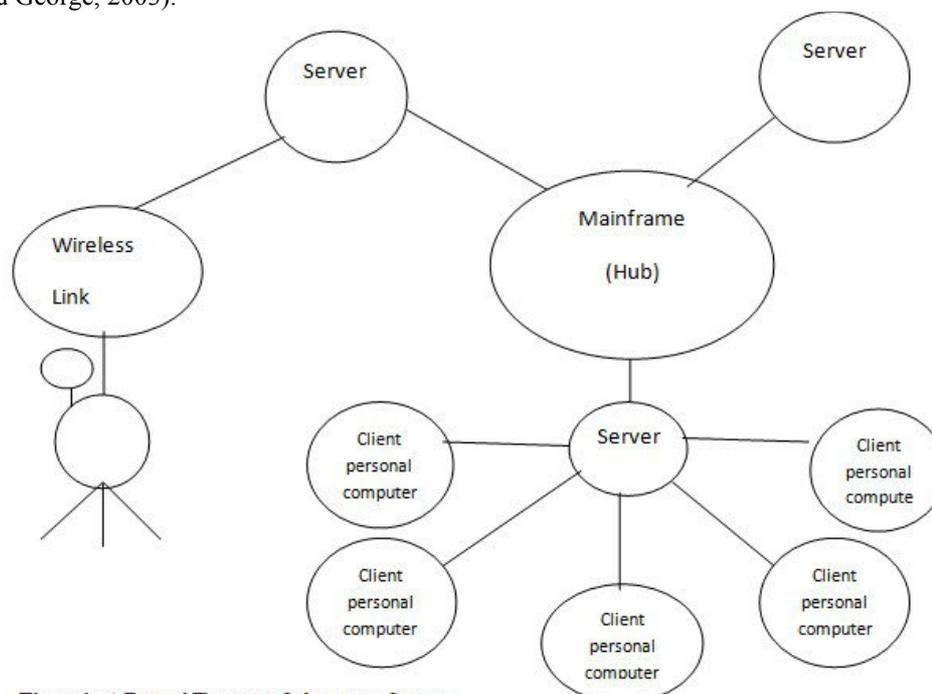


Figure 1: A Typical Three-tier Information System.

Source: Jones, G.R. and George, J.M (2003) *Contemporary Management*, New York: McGraw-Hill Companies Inc.

Servers may also manage several printers that can be used by hundreds of clients, store data files, and handle email communications between clients. The clients computers linked directly to a server constitute a Local Area Network (LAN). Within an organization there may be several LANs- for example, one in every division and function (marketing executives in the banks). At the hub of a three-tier system are mainframe computers. Mainframes are large and powerful computers that can be used to store and process vast amount of information. The mainframe can also be used to handle electronic communications between personal computers situated in different LANs. In addition, the mainframe may be connected to mainframes in other organizations. Increasingly, the internet, a world wide network of interlinked computers, is used as the conduct for connecting the computer systems of different organizations. A Manager linked with a personal computer hooked into a three-tier system can access data and software stored in the local server, in the mainframe or through the internet in computers based in another organization. A manager can therefore communicate electronically with other individuals like the marketing executives, hooked into the system, whether they are in the manager's LAN, in another LAN within the manager's organization altogether. Moreover, because of the growth of the wireless communications, an individual (such as the marketing executives of the bank) with proper equipment can hook into the system from any location at home, on a boat, on the beach, in the air-anywhere a wireless communication link can be established (Jones and George 2003, Donovan 1994, Benjamin and Blunt 1992).

Another type of network that can be used by banks for computer network in supervising the marketing executives includes the internet. The easily accessibly internet and the world wide web (one of the services using the internet) revolutionized information sharing. For the first time data could be shared in real time as text, voice, graphics and video among anyone with access to the internet. The internet is a network of networks, connecting hundreds of thousands of corporate, educational and research computer network around the world. The internet allows several communication and information sharing capabilities:

- Electronic mail (e-mail) provides for communication of text messages and file attachments between computers;
- Telnet enables users to connect to other computers and internet with them as if the originating computers were directly connected to the remote computers;
- File-transfer protocol (FTP) sites are intermediate sites that are used to move files and data from one computer to another; and
- The World Wide Web (the web) employs the internet's standards and protocols to allow users to get and contribute text, documents, images, and many other things (Gomez-Mejia and Balkin 2002; Macintosh 1995).

Extranets also called wide area network, link's employees, suppliers, customers, and other key business partner in an electronic online environment for business communications. An Extranet allows firm's customers and suppliers to connect through the internet, to certain internal computer based system. Some extranets cannot be accessed by the general public. Access to these sites may be controlled by the firm by requiring registration or by issuing usernames and password. Internal network are called Intranets, different network from the internet and extranets. Intranets are private or semiprivate internal networks. Unlike LANs, Intranets use the infrastructure and standards of the internet and the web. The intranet site is typically a website with areas within it for employee use. According to Brandt (1994) an intranet allows an organization's employees to communicate with each other and to access company information and database through their desktop or laptop computers. Access to intranet typically is limited to a firm's employees and access to restricted data can further be limited to certain employees. Uduji and Chijionwu (2011) noted that one of the advantages of an intranet is that employees can work at remote locations and be connected to the firm. Companies use their intranets for many purposes. Managers must consider several factors before designing and implementing an intranet. Nwude and Uduji (2013) warn that firms that establish intranet or extranets need to be careful about allowing access to sensitive information, because information thieves often strive to find ways to access a firm's computer.

According to Uduji and Nwabuko (2011), software developments have implications for firms. Time and cost savings from implementing software's that can drive processes have enabled marketing executives to work more efficiently. Ezigbo and Uduji (2013) noted that labor can sometimes be replaced by technology freeing employees to focus on more challenging tasks. Information technology advances have also eliminated many position and squeezed middle managers out of many organizations. According to Gomez-Mejia and Balkin (2012), one form of integrated software that has been implemented by many large firms is Enterprise Resource Planning (ERP) software, which combines all of a firm's computerized functions into a single integrated software program that runs off a single database, allowing various departments to easily share information and communicate with each other. ERP combined with the internet is the basis of this firm's e- business. O'Reilly (1982) remarked that large manufacturing firm was the original target markets for ERP, but other types of organization have implemented it as well. Companies decide to implement ERP for three main reasons:

- To integrate financial data by providing one set of numbers for the company's finance department, sales

department, and individual business units.

- To standardize manufacturing processes, especially so that a firm with multiple business units can save time, increase productivity, and reduce staff.
- To standardize human resources information with a unified, simple method for tracking employee time and communicating about benefits and services.

Nwude and Uduji (2013) noted that using computer systems entails some new management's issues about ethical uses of information. They defined computers ethics as the analysis of the nature and social impact of computer technology and the development of policies for its appropriate use. Use of computers has created some unique problems that foster the need for developments of ethics policies:

- Computer-generated errors are unlike human errors.
- Computers are able to communicate over great distance at low cost.
- Computers can store, copy, erase, retrieve, transmit, and manipulate huge amounts of information quickly and cheaply.
- Computers can depersonalize organization, users, and subjects of programs and data.
- Computer can use data created for one purpose for another purpose for long periods of time (Hallows, 1997; Weckert and Adeneye, 1997).

A primary consideration in managing information system and information technology is information security. The benefits of the internet in making information easily available also allow unwanted parties a gateway to the firm (Gonzalez, 1998). Companies can implement information security in several ways. Users name and password are one way to resist access to information on a network. Sensitive or financial information are transmitted using networks, can be encrypted, using software that scrambles the data before it is sent and then unscrambles it when it is received (Teresko, 1999). Companies also use fire walls to protect sensitive or proprietary information available on a network. A firewall is a combination of computer hardware and software that controls access to and transmission of data contained in a network (Ross, 1995). Information system is also at risk for computer viruses. Firms can establish policies about downloading documents and other files from networks or e-mails and provide tools for detecting viruses, intrusive programs that can infect computer files (Weckert and Adeneye 1997; Pinsonneault and kraemer, 1993). Information system combines computer and other hardware, software such as data mining tools, and human resources to manipulate data into usable information. Newer systems, in fact, use computer with so-called business intelligence to analyze information. Several type of information system can be used in firm, such as: Process Control System, Office Automation System, Transaction Processing System, and Expert System. But not all information system is management information system. A Management Information System (MIS) is an information system that provides information to manager to use in making decisions. Although MISs traditionally has supported strategic management, all type of management use them to day. An operation manager needs data about past operation to compare against present result to determine if business processed can be improved. Marketing Manager needs information to make decisions about pricing, distribution channels, promotion, and supervision of the market executives (Nwude and Uduji, 2013; Nwosu, Uduji and Nnabuko, 2010; Uduji and Chijionwu, 2011; Ezigbo and Uduji, 2013).

Research Methodology

The study covered marketing executives in the following selected consolidated commercial banks in Lagos city of Nigeria:

- Access bank
- Diamond bank
- Eco bank
- First city monument bank
- Fidelity bank
- First bank
- Zenith bank
- United bank of Africa

Since the study is concerned with specific predictions, narrations of facts and characteristics, a descriptive/diagnostic design was adopted. The research ensured enough provision for protection against bias and maximized reliability, with due concern for the economical completion of the research study. Both secondary and primary sources were employed to gather information for the Study. Questionnaire was the principal source of the primary data, while interview served as complementary. A miniature trial survey of the study was carried out in Victoria Island of Lagos, Nigeria, to test the validity, reliability and practicality of the research

instruments and operation. A sample size of 180 marketing executives was determined using a percentage formula:

$$n = \frac{z^2 (Pq)}{e^2}$$

Where:

- n = the sample size
- z = standard error associated with the chosen level of confidence.
- P = estimated variability in the population.
- q = (100-p)
- e = acceptable error.

The choice of this formula was because, the study focused on some nominally scaled question in the survey. The stratified sampling technique was used to ensure a fair representation of the selected 8 banks in Lagos city, in the ratio of 8:7:6:5:4:3:2:1, using the proportional formula of:

$$Q = \frac{A}{N} \times \frac{n}{1}$$

Where:

- Q = the number of questionnaires to be allocated to each segments
- A = the population of each segment
- N = the total population of all the segment
- n = the estimated sample size of the study.

Data collected were analyzed using descriptive and inferential approaches. For hypothesis testing, Kendall's W test statistics was used to judge the significance of the result obtained.

DATA PRESENTATION AND ANALYSIS

Scale:

- Definitely Disagree (DD) - 1**
- Generally Disagree (GD) - 2**
- Somewhat Disagree (SA) - 3**
- Generally Agree (GA) - 4**
- Definitely Agree (DA) - 5**

Table 1: Information Technology as a Tool for Effective Supervision of the Marketing Executives in the Banking Industry in Nigeria n = 180

Questions	DD (%)	GD (%)	SA (%)	GA (%)	DA (%)	Mean	Std. Dev.
Managers without laptops or notebook computers can consider themselves under-equipped for supervision of marketing executives in the banking industry in Nigeria	0 (0.0)	0 (0.0)	0 (0.0)	56 (31.1)	124 (68.9)	4.69	0.46
The World Wide Web is the main stream of communication for most of the supervisory purposes of marketing executives in the Banking Industry in Nigeria	7 (3.9)	21 (11.7)	32 (17.8)	76 (42.2)	44 (24.4)	3.72	1.08
The Internet is a powerful communication tool for supervision of the marketing executives in the Banks, mainly because of its ability to mix all media in real time	0 (0.0)	0 (0.0)	32 (17.8)	48 (26.7)	100 (55.6)	4.38	0.77

Source: Field Survey, 2013

In trying to determine the value of Information Technology to the effective supervision of the marketing executives in the Nigerian banking industry, views of the study respondents were sought, as presented in table 1. The responses of 56 respondents (31.1%) who generally agreed, and 124 respondents (68.9%) who definitely agreed, and the mean response score of 4.69 shows that the study respondents definitely agree that managers without laptops or notebook computers can consider themselves under-equipped for supervision of marketing executives in the banking industry in Nigeria.

As indicated by 7 respondents (3.9%) who definitely disagreed, 21 respondents (11.7%) who generally disagreed, 32 respondents (17.8%) who somewhat disagreed, 76 respondents (42.2%) who generally agreed, and 44 respondents (24.4%) who definitely agreed, and a mean response score of 3.72, the study respondents generally

agree that the World Wide Web is the main stream of communication for most of the supervisory purposes of marketing executives in the Banking Industry in Nigeria.

With 32 respondents (17.8%) somewhat agreeing, 48 respondents (26.7%) generally agreeing and 100 respondents (55.6%) definitely agreeing, and a mean response score of 4.38, the study respondents generally agreed that the Internet is a powerful communication tool for supervision of the marketing executives in the Banks, mainly because of its ability to mix all media in real time.

Test of Hypothesis

The personal computer, in both desktop and portable form, is not a superb message centre for managers receiving and relaying information quickly to the marketing executives in the Banking Industry in Nigeria.

To test this hypothesis, the respondents' responses to the three questions presented in table 1 were tested using the Kendall's W Test statistics.

Table 2: Non-Parametric Tests Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
q1	180	4.6889	.46424	4.00	5.00
q2	180	3.7167	1.07939	1.00	5.00
q3	180	4.3778	.77066	3.00	5.00

Source: Field Survey, 2013

Table 3: Kendall's W Test Ranks

	Mean Rank
q1	2.53
q2	1.31
q3	2.16

Source: Field Survey, 2013

Table 3 in ranking the mean responses to the three questions presents responses to question 1 with the highest mean rank (2.53), followed by question 3 (with a mean rank of 2.16), and question 2 (with a mean rank of 1.31). Upon testing this hypothesis, a calculated Chi-square result of 230.691 was obtained. This value is greater than the critical Chi-Square value of 5.991. This result is significant as P-value of $0.000 < 0.05$. Furthermore, with the Kendall's Coefficient of Concordance of 0.641, there is an established agreement among the responses to the three questions. Hence, the null hypothesis is rejected. Therefore the personal computer, in both desktop and portable form, is a superb message centre for managers receiving and relaying information quickly to the marketing executives in the Banking Industry in Nigeria.

Discussion of Research Findings

The finding of this study indicates that the personal computer, in both desktop and portable form is a superb message centre for managers receiving and relaying of information quickly to the marketing executives in the banking industry in Nigeria. The result of the study shows that:

1. Managers without laptops or notebook computers are considered under equipped for effective supervision of the marketing executives in the banking industry in Nigeria.
2. The World Wide Web is the main stream of communications in the supervision of the marketing executives in the banking industry in Nigeria.
3. The internet is a powerful communication tool and a valuable tool for interactive dialogues in the supervision of the marketing executives in the banking industry in Nigeria.

These findings agreed with previous studies that have compared good and poor supervision communication skills. Supervisors who receives high evaluation exhibit several key characteristics. First, they communicate more information, for example they give advance notice of impending changes, explain the reasons behind policies and regulations and enjoy conversing with their subordinates. Second, this supervisors prefer asking and persuading to telling and demanding (but are capable of using both styles if necessary). Third, they are sensitive to people's feelings and needs. For example, they are careful to reprimand privately rather than publicly. Finally, they are willing, emphatic listeners. They respond with understanding to all questions from employees and give fair consideration to, and are willing to take appropriate actions on complaints and suggestions. Thus these managers are more "communication minded" (i.e. information technology oriented) than the ineffective managers. This could suggests that bank managers who lack confidence in their communication skills, both oral

and written, tend to avoid communication situations altogether. This tendency would be a severe handicap for any manager who wanted to enhance this or her units supervisory performance on the marketing executives in the banking industry in Nigerian (Thierauf, 1994; Pinsonneault and Kraemer, 1993; Teresko, 1999).

Table 1 of this study, confirm that new technology has greatly increased the choices for managers that supervise the marketing executives in the banks. The personal computer, both in desktop and portable form, is a superb message center for managers receive and relating information quickly around the marketing executives. E-mail is fast, user- friendly, and versatile. It can be in prime medium of communication within the marketing executives, and would account for more and more external messages. Keeping marketing executives informed by e-mail also saves paper. However, e-mail can be abused, so it is suggested that the supervising managers should follow these rule of “netiquette”

- Use meaningful subject titles
- Be as brief as possible
- Distinguish business mail from non-business
- Be selective in the recipients of the e-mail
- Avoid attaching extra files to your e-mail if you are mailing a lot of marketing executives at once
- Never use obscene language and insults on your marketing executives, and shun any tribal or racist mail.

Table 2, of the study analysis indicates that the internet is transforming communication, as are internal network, groupware, internets, (in-banks internets), and the Extranet (which connects banks with customers). Therefore the study suggests again the use of basic web-sites on the internet to carry up-to-date information about the bank for both customers and the marketing executives. It is also suggested that the bank managers should often look at the web-sites of other banks for information on the competitors. The result of Kendall’s W Test statistics shows that the internet can be a valuable tool for supervisions, all kinds of research and for interactive dialogues in the banking industry in Nigeria. The internet can also be used for quality customers’ services delivery in the banks.

Conclusion and Recommendations

Few managers today in the banking industry in Nigeria can make effective supervision of their marketing executives if they do not understand the basics of information technology, puts libraries in the office and a postal services at the beck and call of the supervision in banks. There are two types of e-mail system for the manager’s in the bank: intranet within the banks, used mainly to relay messages between managers and the marketing executives, and internet based e-mail, which allows for international communication. E-mail is easy to use and can be a channel for more than just simple messages. Managers can use it to send any document on a computer as an attachment to an e-mail so that the marketing executives will not need to import or retype, as long as the recipient has the right software to read it. Because of it’s immediacy, e-mail can be an informal medium and strict rules of grammar and formal written language tend not to be used. But bank managers and the marketing executives must remember that confidentiality is not guaranteed. It is therefore recommended in this study that management in the banking industry in Nigeria, should provide their marketing executives with portable laptops computers which would be used to assist them in the following areas:

1. Better customer and industry information, as marketing executives and their managers would have immediate access to complete customer histories and industry information.
2. Marketing assistance, as the system provides electronics libraries of bank product information and enhanced capabilities for analyzing customer problems; COT quotes, bids, proposals for services and installation agreements can be generated automatically.
3. Marketing supports such as orders can be entered and tracked very accurately by the marketing executives. Correspondence with customers can also be handled more efficiently by the marketing executives using their portable computers.
4. Reporting responsibilities as the marketing executives can submit their call plans and reports, expense report, and other marketing intelligence using their laptops
5. Communication as the electronic mail capability of these system enables banks to be in constant communication with their marketing executives regardless of where they are.

These computers can be programmed to quote COTs, write contracts, track bank customers, and provide products and marketing information in the industry. These systems would provide a way to minimize the time spent on report writing. Yet at the same time, they improve the accuracy of the bank marketing information which is collected. Banks that have computerized support system would report significant improvements in the marketing executive productivity and management effectiveness in the banking industry in Nigeria.

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