

**INFLUENCE OF MODERN OFFICE AUTOMATION ON SECRETARIES'
INFORMATION PROCESSING AND COMMUNICATION SKILLS IN
TERTIARY INSTITUTIONS IN ANAMBRA STATE**

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Abstract

The main purpose of the study was to determine the influence of office automation on secretaries' information processing and communication skills in tertiary institutions in Anambra State. Two research questions guided the study and two hypotheses were tested. The descriptive survey research design was adopted for the study. The population of the study comprised all 506 secretaries in the six tertiary institutions in Anambra State. The instrument for data collection was a validated structured questionnaire developed by the researchers. The test of reliability of the instrument using Cronbach Alpha yielded coefficient values of 0.75 and 0.77 for clusters B1 to B2 respectively with an overall reliability co-efficient value of 0.76. Data collected for the study were analyzed using mean, standard deviation and t-test. The mean value was used to answer the research questions while the standard deviation was used to ascertain the homogeneity or otherwise of the respondents' responses. t-test was used to test the null hypotheses at .05 level of significance. Findings of the study revealed that modern office automation improves secretaries' information processing and communication of secretaries in tertiary institutions in Anambra State. Findings also revealed that the educational qualification and years of experience of secretaries did not influence their opinion on the extent modern office automation improves their productivity. Based on these findings, the researcher recommends among others, that administrators of public establishments should ensure that office automation tools and facilities are readily made available for secretaries to enhance their productivity.

Keywords: Modern Office Automation, Information Processing, Communication, Skills

Introduction

The 21st century has witnessed a lot of advancement both in science and technology. This advancement has been growing rapidly since the end of Second World War both in manufacturing, aviation, medicine, engineering, finance and administration, such advances has affected adversely all aspects of life. Technological innovations have also impacted on the processes and procedures in modern day offices. The strategic role that the office holds as the digital nerve center of any given organization has put considerable emphasis on the use of information and communication technologies in offices (Ajike, 2015). The nature of the modern day office makes it a place of operation where multiple tasks require the handling of information through the application of technology (Akiti, 2017).

Koko and Okogun (2020) defined an office as a place where administration, which is management and processing of information, takes place. An office is a position (room or building) where an organization's paper or clerical work is performed (Ajike, 2015). Thus an office is a place where managerial, clerical and financial tasks are carried out in an organization. In today's offices, office activities depend on information and communication technology (ICTs). Tools ranging from photocopiers, printers, fax machines, electronic correspondence and image editing have their own knowledge and are used to execute tasks more efficiently in the modern day office (Dosunmu, Bukki & Akintola, 2017). The process of utilizing the ICT tools in carrying out office functions is called modern office automation.

Modern office automation is the process by which machines and equipment are introduced in the work place to facilitate administrative processes, remove bureaucracy and unnecessary delay of the office functions (Ovbiagbale, Mgbonyebi & Olaniye, 2019). In the same vein, Okon and Okogun (2020) defined modern office automation as the use of computer systems and software in service delivery. Thus, office automation is the use of self-regulating devices to handle office activities traditionally performed manually or by semi-mechanical methods. The automation of modern office has thus revolutionized the secretarial procedures in modern offices and has greatly improved the way secretaries carry out their duties.

Secretaries are defined as employees who can cope with all the stress and demands of an office in a manner that will ensure an overall control of crisis that may emanate from managing records, communication, information, people and other resources that are intrinsically involved in making the office the nerve centre of the organization (Okeke, 2013). Gambari (2014) stated that a secretary is an executive assistant who has mastery of office skills, demonstrates the ability to assume responsibility without direct supervision, exercises initiatives, judgment and makes decision within the scope of assigned authority. The utilization of ICT gadgets by secretaries has been hailed for having a positive influence on productivity of secretaries in public and private institutions. Office automation according to authors like Onoja (2020) and Fadare (2014) can facilitate efficient discharge of secretaries office works tasks such as information processing and communication skills.

The integration of technology into office work has greatly improved the speed and efficiency in which information is processed in the modern day office. Office information are collected, processed, and stored as well as disseminated to support decision making in any organization. According to Okeke (2013), a secretary in a modern office is expected to be a professional in the use of information technology tools which includes the ability to manipulate hardware, software, database and communication to input, process and output. Okeke (2013) opined that office automation can improve the communication abilities of secretaries.

Office automation significantly impacts on the level of secretaries' productivity especially in the area of communication (Onoja, 2020). Koko and Okogun (2020) viewed the abilities to communicate not only as indicator of good foundation in education but also as an ensuring tool necessary for jobs acquisition/maintenance among secretaries in Anambra State. Communication is the process of transmitting information from one person or place to another. Osso in Agboola and Ademiluyi (2011) observed that communication is more than passing information to a receiver and involves dialogue and social exchange. Agboola and Ademiluyi (2011) opined that through the integration of ICT, communication can be effective because it necessitate that intended message is received, correctly interpreted and understood, accepted and appropriately acted upon by the receiver and confirmed by feedback.

However the extent to which this assertion is true have not yet been proven among secretaries in tertiary institutions in Anambra State. Tertiary institution according to the Federal Republic of Nigeria (FRN) (2013), are institutions of higher learning who offer education to student after post basic education. These institutions include universities, polytechnics, colleges of education and monotchnics as well as other specialized institutions like colleges of agriculture, school of health and technology and the national teachers' institute (FRN, 2013). Secretaries in these institutions carry out administrative tasks that affect students, academic and non-academic staff. The utilization of office automation can impact on the effectiveness to which they discharge assigned tasks. The extent to which office automation might influence secretaries' productivity may be dependent on their educational qualifications and years of work experience.

According to Okolocha and Baba (2017), the level of educational qualification could significantly influence secretaries' ICT utilization and task performance. The ability of secretaries to effectively utilize ICT to improve their job productivity can also be influenced by years of experience. According to Emeasoba (2014), years of experience did not influence ICT utilization and task performance. However, Sarwoko, Surachman, Armanu and Hadiwidjojo (2013) noted that years of experience can influence ICT utilization and task performance. In this study, less experienced secretaries are classified as those who have less than 10 years' of experience on the job while highly experienced secretaries are those with work experience of 10 years and above. However, these views are theoretical assumptions and have not been empirically proven to be the case with secretaries in Anambra State. It is against this backdrop that the researchers determined the influence of modern office automation on the productivity of secretaries in tertiary

institutions in Anambra State.

Statement of the problem

The integration of information and communication technology in the business world has drastically changed the way offices practices and procedures are conducted. Though technology seems to have made it possible for office practices to easily carryout office functions, however, it appears that offices in tertiary institutions have failed to take advantage of the benefits provided by office automation. This is evident in cases where offices in tertiary institutions are littered with files and cabinets rather than having data stored on servers. Furthermore, there are also cases in some tertiary institutions where students spend months carrying around files and papers to process their admission when they can do such online. This shows that the administrators of tertiary institutions in Anambra state do not fully appreciate the efficacy of full automation of office practices. This brings one to question if office automation influences improves secretaries information processing and communication skills?

Research Questions

The following research questions guided the study.

1. To what extent does modern office automation improve information processing skills of secretaries in tertiary institutions in Anambra State?
2. To what extent does modern office automation improve communication skills of secretaries in tertiary institutions in Anambra State?

Hypotheses

The following null hypotheses were tested at .05 level of significance:

H₀₁: There is no significant difference in the mean ratings of secretaries with B.Sc/HND above and those with below B.Sc/HND in tertiary institutions in Anambra State on the extent modern office automation has improved their information processing skills

H₀₂: There is no significant difference in the mean ratings of secretaries with 10 years working experience and those with below 10 years working experience in tertiary institutions in Anambra State on the extent modern office automation has improved their communication skills.

Method

The descriptive research design was used for the study. The study was carried out in Anambra State. The population of the study consisted of 506 secretaries in the six tertiary institutions in Anambra State. The instrument for data collection was a questionnaire developed by the researcher. The instrument is titled “Influence of Modern Office Automation on Secretaries Information Processing and Communication in Tertiary Institutions Questionnaire (IMOASIPCTIQ). The instrument was structured on a 4-point rating scale of Very High Extent (VHE), High Extent, Low Extent (LE) and Very Low Extent (VLE). The instrument was validated by two experts in the Department of Vocational Education and one in the Measurement and Evaluation unit in Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus. To establish the instrument’s reliability, a pilot test was conducted. The questionnaire was administered on 10 secretaries

in tertiary institutions in Enugu State who are not included in the population of the study. The data collected were analyzed using Cronbach Alpha and coefficient values of 0.75 and 0.77 for clusters B1 to B2 respectively with an overall reliability co-efficient value of 0.76. These coefficient values indicated that the instrument is reliable for the study. The data collected from the respondents were analyzed using mean, standard deviation and t-test. The mean value was used to answer the research questions while the standard deviation was used to ascertain the homogeneity or otherwise of the respondents' responses. Any item with mean value equal to 2.50 and above was regarded as high extent while any item less than 2.50 was regarded as low extent. For the hypotheses, two tailed t-test was used to test the null hypotheses at .05 level of significance. The t-test is used in this study because it helps to determine the difference in the mean rating of respondents based on their educational qualifications and years of working experience. Where the calculated t value is less than the critical value of t, it means that there is no significant difference and the hypothesis was accepted. Conversely, where the calculated t value is equal to or greater than the critical t value, it means that there is significant difference and the hypothesis was rejected.

Results

Research Question 1

To what extent does modern office automation improve information processing skills of secretaries in tertiary institutions in Anambra State?

Table 1: Respondents Mean Ratings on the Extent Modern Office Automation Improve Information Processing Skills of Secretaries (N=442)

S/No.	Item Statements	Mean	SD	Remarks
1.	It improves the accuracy of information produced through the use of the word processors	3.48	0.88	High Extent
2.	It reduces the cost of information processes	3.30	0.74	High Extent
3.	It reduces the amount of time spent on processing data	3.21	0.71	High Extent
4.	It reduces the amount of resources utilized while processing information	3.18	0.70	High Extent
5.	It simplifies the management of stored data and information	3.44	0.83	High Extent
6.	It facilitates the storage of large amount of files that would have occupied large office spaces	3.43	0.82	High Extent
7.	It improves the speed with which copies of files are produced	3.56	0.91	Very High Extent
8.	It reduces the workload of secretaries	3.67	1.01	Very High Extent
9.	It enables secretaries to carry out multiple task at a given time	3.74	1.03	Very High Extent
10.	It boosts the feasibility of task performed by secretaries.	3.53	0.89	Very High Extent
Cluster Mean		3.45		High Extent

Data in Table 1 revealed that the respondents rated items 7, 8, 9 and 10 to a very high extent with mean ratings of 3.56, 3.67, 3.74 and 3.53 respectively. They also rated items 1-6 to a high extent with mean ratings ranging between 3.18 to 3.48. The standard deviation scores ranging between 0.70 and 1.03 shows that the respondents' opinions were close. Furthermore, the cluster mean of 3.45 indicate that modern office automation improves information processing skills of secretaries in tertiary institutions in Anambra State to a high extent.

Research Question2

To what extent does modern office automation improve communication skills of secretaries in tertiary institutions in Anambra State?

Table 2: Respondents Mean Ratings on the Extent Modern Office Automation Improve Communication Skills of Secretaries (N=442)

S/No.	Item Statements	Mean	SD	Remarks
11.	It facilitates quick information sharing	3.60	0.98	Very High Extent
12.	It enables ease in communication between departments and units	3.45	0.86	High Extent
13.	It reduces the cost that would have been incurred when manually sending letters	3.65	1.00	Very High Extent
14.	It enable the smooth dispersal of information at anytime of the day	3.52	0.89	Very High Extent
15.	It helps the secretary chose priority messages	3.41	0.80	High Extent
16.	It allows the secretary set correspondences for follow-up	3.20	0.71	High Extent
17.	It helps the secretary send automated responses when they are out of office or unable to reply personally	3.28	0.76	High Extent
18.	It enables secretary to setup meetings virtually irrespective of the location of the secretary or other parties to the meeting.	3.36	0.79	High Extent
19.	It allows secretaries to set appointments.	3.27	0.73	High Extent
20.	It facilitates easy collaboration among secretaries through e-mails and other messaging applications	3.38	0.81	High Extent
21.	The use of automated talking machines assists the secretaries in providing responses to enquiry on time.	3.18	0.70	High Extent
	Cluster Mean	3.39		High Extent

Data in Table 2 showed that the respondents rated items 11, 13 and 14 to a very high extent with mean ratings of 3.60, 3.65 and 3.52 respectively. They also rated items, 12, 15, 16, 17, 18, 19, 20 and 21 to a high extent with mean ratings ranging between 3.18 to 3.45. The standard deviation scores ranging between 0.70 and 1.00 indicate that the respondents' opinions were close. Furthermore, the cluster mean of 3.39 indicate that that modern office automation improves communication skills of secretaries in tertiary institutions in Anambra State to a high extent.

Hypothesis 1

There is no significant difference in the mean ratings of secretaries with B.Sc/HND above and those with below B.Sc/HND in tertiary institutions in Anambra State on the extent modern office automation has improved their information processing skills.

Table 5: Summary of t-test Analysis of Respondents Mean Ratings on the extent Modern Office Automation improves Information Processing Skills

Variable	N	X	SD	df	α	t-cal.	t-crit.	Decision
B.Sc/HND Above	287	3.38	0.87					
				420	0.05	1.60	1.960	Not Significant
Below B.Sc/HND	135	3.24	0.76					

Data in Table 5 showed that the calculated t-value of 1.60 at 420 degree of freedom at 0.05 level of significance is less than the critical value of 1.960. This shows that there is no significant difference in the mean ratings of secretaries with B.Sc/HND above and those with below B.Sc/HND in tertiary institutions in Anambra State on the extent modern office automation has improved their information processing skills, therefore the hypothesis was accepted.

Hypothesis 2

There is no significant difference in the mean ratings of secretaries with 10 years working experience and those with below 10 years working experience in tertiary institutions in Anambra State on the extent modern office automation has improved their communication skills.

Table 6: Summary of t-test Analysis of Respondents Mean Ratings on the extent Modern Office Automation improves Communication Skills

Variable	N	X	SD	df	α	t-cal.	t-crit.	Decision
10 Years and above		256	3.46	0.89				
				420	0.05	0.52	1.960	Not Significant
Below 10 Years	166	3.51	0.94					

Data in Table 6 showed that the calculated t-value of 0.52 at 420 degree of freedom at 0.05 level of significance is less than the critical value of 1.960. This shows that there is no significant difference in the mean ratings of secretaries with 10 years working experience and those with below 10 years working experience in tertiary institutions in Anambra State on the extent modern office automation has improved their communication skills, therefore the hypothesis was accepted.

Discussion

Findings revealed that modern office automation improves information processing skills of secretaries in tertiary institutions in Anambra State to a high extent. Findings further reveal that modern office automation improves the accuracy of information produced through the use of the word processors, reduces the cost of information processes, reduces the amount of time spent on processing data, reduces the amount of resources utilized while processing information and simplifies the management of stored data and information among others. This is in agreement with Koko and Okogun (2020) that the use of computers, internet facilities, scanning machines and printing machines all have a significant and positive influence on the administrative efficiency of secretaries. This means that the use of modern office automation gadgets improves information processing which leads to improved productivity. Similarly, Onoja (2020) also found that office

automation influence the ability of secretaries to process information in the offices. This finding is in agreement with Armah (2015) who reported that all the secretaries accepted that the introduction of Information and Communication Technology in their offices has led to improvement in their performance and has also made it possible for them to implement major changes as well as making corrections easily. As a result, it has also ensured accuracy and uniformity in their performance. Furthermore, findings revealed no significant difference in the mean ratings of secretaries with B.Sc/HND above and those with below B.Sc/HND in tertiary institutions in Anambra State on the extent modern office automation has improved their information processing skills. This finding indicates that level of academic qualification did not influence the opinions of secretaries in tertiary institutions in Anambra State.

Findings revealed that modern office automation improves communication skills of secretaries in tertiary institutions in Anambra State to a high extent. The findings of the study further show that the use of modern office automation facilitates quick information sharing, enables ease in communication between departments and units, reduces the cost that would have been incurred when manually sending letters, enable the smooth dispersal of information at anytime of the day and facilitates easy collaboration among secretaries through e-mails and other messaging applications among others. This finding showed that the use of office automation improves secretary communication skills. This is in agreement with Oteng and Seidu (2016) who found that organizations with modern equipment enhance secretary's tasks performance. Oteng and Seidu (2016) opined that that the availability of office automation tools allows for quick flow of information within an institution. Modern office automation thus facilitates the communication flow and processes within the organization.

Furthermore, findings revealed that no significant difference in the mean ratings of secretaries with 10 years working experience and those with below 10 years working experience in tertiary institutions in Anambra State on the extent modern office automation has improved their communication skills. This indicates that secretaries irrespective of their years of working experience did not differ on the extent modern office automation influences the communication skills of secretaries. This finding is in agreement with Akiti (2017) who observed that the use office automation gadgets improve the communication efficiency of office secretaries.

Conclusion

Based on the findings of the findings of the study the researcher concludes that office automation improves secretaries' efficiency in the discharge of office tasks. The use of office automation improves secretaries' productivity in that it improves their information processing and communication skills. It is therefore imperative that efforts are made by administrators of tertiary institutions to ensure that offices in their institutions are fully automated.

Recommendations

Based on the findings of this study, the study proffers the following recommendations:

1. Administrators of public establishments should ensure that office automation tools and facilities are readily made available for secretaries. This will help to improve the effectiveness of secretaries in processing information in tertiary institutions.
2. Secretaries can also improve their use of modern office automation tools to improve their communication skills by acquiring and reading books, memoirs, journals and periodical that will educate them on appropriate office communication skills required by secretaries.

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