



IDENTIFICATION OF HIGHER LEVEL COMPETENCIES REQUIRED IN TECHNOLOGICALLY DRIVEN OFFICES

AZIH NONYE (PhD)

Department Of Business Education
Ebonyi State University Abakaliki
Ebonyi State
nonyeazih@yahoo.com

AMA FAITH NNENNA (PhD)

Dept of Office Technology and Management
Akanu Ibiam Federal Polytechnic, Unwana
Afikpo-Ebonyi State
amafaithnne@gmail.com

Abstract

This study identified the higher level competencies required in modern offices as a result of advancement in technology. Office activities have been transformed due to technological advancement. This transformation calls for improvement of skills as well. Therefore, higher level competencies are required to perform office duties. Four specific purposes and four corresponding research questions guided the study. Two hypotheses were tested at 0.05 level of significance. The study was carried out in public establishments in Afikpo North` Local Government Area of Ebonyi State that have secretaries in their employment. The total population was 52. There was no sampling because the population was manageable. A structured questionnaire was used for data collection. The reliability coefficient of the instrument was determined to be 0.85 using test retest method. The research questions were answered using mean statistic and standard deviation; while Z-test statistics was used to test the two null hypotheses. It was found that office employees required higher level competencies such as adaptive thinking, problem-solving, collaboration and computing competencies in modern offices because of the changes brought by advancement in technology. Based on the findings, it was recommended among others that employers of labour should always be involved in planning Office Technology and management curriculum which is the programme training office practitioners and curriculum planners should, as they review the curriculum be deliberate in including course content that will expose the students to these skills.

Keywords: *Competencies, Technology, Transitional office, Modern office, virtual office.*

Introduction

Business activities must be co-ordinated if goals must be achieved. Any location, area or space where such co-ordination takes place is known as an office. Therefore, an office is a room, corner of a building, kiosk, closet, where clerical functions such as recording, writing, reading, safe-keeping, storing, retrieving, typing, printing,



photocopying, scanning, receiving, transmission, processing of information are performed. In the traditional office, duties are performed manually. Records are usually in manuscripts. Extra copies of a document are copied and re-copied, thereby wasting a lot of money, energy and materials (Ohaegbulem, 2014).

Ojukwu (2009) stated that the office scene has changed in the past years and will continue to change further in future. The key elements causing the changes are the advances in information and communication technology, increased computerization, changes in organization structures, procedures and practices. There are three notable phases of the changes in the office scenes. They are the traditional office of the 1950s, the transitional office of the 1970s, and Electronic office of the 1990s and the future (Onwukwe & Obeka, 2014).

Oliverio and Pasewark in Onwukwe and Obeka asserted that the traditional office is one that is functioning with structure and basic equipment that was available a decade or more ago. The office of 1970s was in-between the traditional office and the electronic office. Computers were used for word processing tasks. However, the computers were generally “stand-alone” in nature. The word processors more or less were used to perform the function of typewriting and generally were not linked or communicating with other computers. The use of computers to process words in the office makes it possible for the storage and retrieval of information. The computers were not communicating electronically with each other because they were not networked. Hard copies of documents were generated and filed just like in traditional office. Distribution of mails was done manually (James, 2009).

In electronic office of the 1990s and the future, otherwise referred to as modern office or state-of-the-art office; information processing is fully computerized and networked. More of soft rather than hard copies of documents are used. The computers are networked so that sending or receiving information and performing other duties may be carried out through the interaction of computers and other information technology gadgets (Onwukwe and Obeka, 2014).

Ohaegbulem (2014) maintained that in state-of-the-art office, information storage takes place as input into the computer similar to that of the word processing office; but different because information is stored electronically in software and not as hard copies in files inside drawers, shelves, cupboards, racks and others. Retrieval is also electronically done by mere command given to the system to find data and display same on the screen or print out as hard copy. Information is sent and received in state-



of- the- art office with greater speed with less or no paper involved. The electronic office can be called paperless office and may be a virtual office. A virtual office is an office that mostly exists in cyberspace. It is not located in space like the traditional office. Office duties are transacted anywhere electronically via teleconferencing and video- conferencing technology. As a result of advancement and application of technology in the office management process and systems, the following changes could be seen; changes in the information flow process, changes in decision levels, organizational restructuring, and these mean that higher level of skills are expected of office workers (Osuala & Okeke, 2006). This is because technologies keep pushing for new application of work skills, techniques and approaches.

Competence indicates sufficiency of knowledge, attitude and skills that enable someone to act in a wide variety of situations. Competence is a person's ability, power, authority, skill, knowledge, attitude, to do what is needed. Each level of responsibility has its own competency requirements. Competencies focus on personal image, attitudes, habits, behaviour, techniques of communication, problem solving, decision making, reliability, honesty, humility, resourcefulness, regularity, and human relations formation (Ohaegbulem, 2014).

Advancement in technology which has brought about modern equipment has also affected the competencies required to work in the offices. There were traditional skills required of office workers such as using an intercom, a diary, an assortment of writing pads and a secretary seated in an adjacent room or office to receive callers to the office, but these skills are obsolete and have been replaced or upgraded to higher skills. Higher level competencies are now needed in the modern office because of the dynamism in the job responsibilities of office managers as a result of advancement in technology. These skills are higher in the sense that they are not only necessary for particular office activities but enable an office worker to be able to coordinate the numerous office functions. Such competencies are necessary because machines and systems have taken over the repetitive and manual aspects of the office duties. Therefore the office worker is required to possess higher competencies that will enable him do a co-ordination job instead of routine jobs. These new responsibilities have emanated because modern machines have brought about a restructuring in modern offices. Executives can now sit on the computer and type their letters and therefore do not give dictations to the secretaries to transcribe. Moreover, bosses now delegate administrative and decision making duties to their secretaries since they are not always in the office. Also information management and



administration can now be done in virtual offices. These competencies were identified by Alvenfors (2010) as adaptive thinking competencies, collaborative competencies, problem solving competencies, decision making, computing competencies and some others.

Adaptive thinking is the ability of a worker to intelligently adapt his behaviour by thinking and coming up with solutions and responses beyond what is rote or rule-based. Collaboration is the process of working as a team with a group of people in order to achieve a goal; problem solving is the process of finding solutions to difficult or complex issues, computing skills is the ability to sit down at a computer and have enough knowledge of how software works to figure out what to do.

It is therefore the position of this study that if some skills have become obsolete as a result of advancement in technology, some other ones should come into play to make the paradigm shift conclusive. The researcher therefore seeks to identify these skills that are expected of modern office workers in modern office environment.

Statement of the Problem

A modern office is an office that functions with the most advanced equipment and systems available. Due to such increasing levels of automation, computerization, organizational re-structuring; higher calibre of staff with increased skills are required to cope with complex office duties performed in modern offices. The development in office technology will continue to bring about further changes in the nature of works done in the office with increasing managerial and human resource responsibilities. Office workers need higher competencies that will enable them perform the duties required of them.

However, when one considers the poor jobs that are produced in our offices; graduates roaming about due to lack of required skills even when there are offices in need of secretaries, reduction in productivity in the offices and others. We cannot but conclude that there is a gap. It therefore appears that office workers lack the competencies required of them due to technological advancement. In others words, workforce lacks the critical skills needed to develop the economy Okon (2018). Indeed a large number of employers cite lack of skills as a major obstacle to hiring office personnel. In view of these problems, this study was carried out to identify the higher level competencies required in modern offices as a result of advancement in technology.



Research Questions

The following research questions were formulated to guide the study;

- What are the adaptive thinking competencies required in modern offices?
- What are the problems solving competencies required in modern offices?
- What are the Collaborative competencies required in modern offices?
- What are the computing competencies required in modern offices?

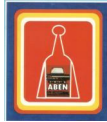
Hypotheses

The following hypotheses were tested at 0.05 level of significance:

- Ho₁: There is no significant difference in the mean ratings of lecturers and employers of labour on the competencies required in modern offices as a result of advancement in technology.
- Ho₂: There is no significant difference in the mean ratings of male and female respondents on the competencies required in modern offices as a result of advancement in technology

Method

A descriptive research design was used in the study. The study looked into the opinions and views of lecturers and employers of labour concerning the higher level competencies required as a result of advancement in technology. To answer the research questions, a structured questionnaire comprising 38 items was used for data collection. The questionnaire was validated by two business education lecturers in Ebonyi State University, Abakaliki. The reliability of the instrument was tested and it yielded a reliability index of 0.85. The population of the study comprised all Office Technology and Management lecturers and Principal staff of Akanu Ibiam Federal Polytechnic, Unwana, employers of labour in Afikpo North Local Government Council and Zonal Education Board Afikpo. The entire population of 52 officers was studied. This was the case because according to Ezemoyih and Ugochukwu (2014) whenever the population is manageable, the entire population could be studied. Fifty-two (52) copies of the questionnaire were returned and used for data analysis. Data was analysed using mean and standard deviation for the research questions while the hypotheses were tested at 0.05 level of significance using z-test. A mean score of 2.50 was used as the cut-off point. Items with mean score of 2.5 and above were interpreted as 'Agree' while items with mean score below 2.5 were interpreted as 'Disagree'. The null hypothesis was rejected when the calculated z-value exceeded the z-table value and accepted when the z-table value exceeded the z-calculate value at 0.05 level of significance.



Results

Research Question 1

What are the adaptive thinking competencies required in modern offices?

Table 1: Mean Responses of Respondents on the Adaptive Thinking Competencies Required in Modern Offices.

S/N	Items	0	STD	Remarks
1	Positive or rational thinking	3.47	0.62	Accepted
2	Ability to conceptualize	3.42	0.72	Accepted
3	Ability to analyze issues	3.45	0.74	Accepted
4	Ability to evaluate information to reach an answer or conclusion	3.61	0.50	Accepted
5	Ability to give sound evidence	3.70	0.46	Accepted
6	Consistency of ideas or thoughts	3.74	0.44	Accepted
7	Ability to control emotions	3.49	0.52	Accepted
8	Ability to compare and contrast	3.62	0.58	Accepted
9	Possession of positive imagination	3.89	0.22	Accepted
10	Ability to evaluate evidence	3.68	0.52	Accepted
Grand Mean/STD		3.61	0.54	

Table 1 above shows that all the ten (10) variables itemized as adaptive thinking competencies are highly required in modern offices as a result advancement in technology.

Research Question 2

What are the problem-solving competencies required in modern offices?

Table 2: Mean Responses of Respondents on the Problem-Solving Competencies Required in Modern Offices.

S/N	Items	0	STD	Remarks
11	Ability to trouble shoot	3.59	0.52	Accepted
12	Ability to proofread documents	3.56	0.51	Accepted
13	Possession of maintenance culture	3.0	0.87	Accepted
14	Ability to detect fraud	3.53	0.64	Accepted
15	Ability to identify problems and their solutions	3.59	0.51	Accepted
16	Possession of creative curiosity	3.47	0.80	Accepted
17	Ability to inspire people to greater performance	3.65	0.49	Accepted
18	Understanding cause and effect.	3.59	0.51	Accepted
19	Priority setting	3.53	0.64	Accepted
20	Ability to create innovations	3.41	0.77	Accepted
Grand Mean/STD		3.48	0.63	

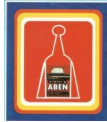


Table 2 above indicates that all the items 11-20 are problem-solving competencies required in modern offices as a result of advancement in technology.

Research Question 3

What are the collaborative competencies required in modern offices

Table 3: Mean Responses of Respondents on the Collaborative Competencies Required in Modern Offices.

S/N	Items	0	STD	Remarks
21	Ability set realistic targets for the team	3.32	0.53	Accepted
22	Ability to encourage people	3.68	0.47	Accepted
23	Ability to be sensitive to friction or crises	3.45	0.67	Accepted
24	Ability to listen to ideas from others	3.52	0.51	Accepted
25	Ability to inspire loyalty and team spirit	3.75	0.73	Accepted
26	Ability to use positive reinforcement or motivation	3.60	0.55	Accepted
27	Possession of public relations words such as: please, sorry, thanks	3.51	0.52	Accepted
28	Ability to show leadership	3.61	0.55	Accepted
29	Never castigate your team leader	3.64	0.52	Accepted
30	Ability to be flexible and ready to move on	3.49	0.58	Accepted
Grand Mean/STD		3.55	0.56	

Table 3 above reveals that items 31-40 are collaborative competencies required in modern offices as a result of advancement in technology.

Research Question 4

What are the computing competencies required in modern offices as a result of advancement in technology?

Table 4: Mean Responses of Respondents on Computing Competencies Required in Modern Offices..

S/N	Items	0	STD	Remarks
31	Ability to use basic skills in arithmetic	4.0	0.64	Accepted
32	Ability to use computer to do addition	3.37	0.58	Accepted
33	Ability to use computer to do multiplication	3.64	0.60	Accepted
34	Ability to use computer to do division	3.57	0.64	Accepted
35	Ability to use computer to do subtraction	3.58	0.57	Accepted
36	Ability to measure and cut different paper sizes	3.57	0.64	Accepted
37	Ability to display a text vertically equal	3.52	0.46	Accepted
38	Ability to display a text horizontally equal	3.27	0.58	Accepted
Grand Mean/STD		3.50	0.63	

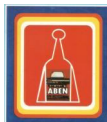


Table 4 above shows that all the eight (8) items, 41-48, are computing competencies required in modern offices as a result of advancement in technology.

Test of Hypotheses

Ho₁: There is no significant difference in the mean ratings of lecturers and employers of Labour on the competencies required in modern offices.

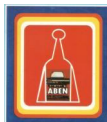
Table 5: Analysis of Z-test statistics of Lecturers and Employers of Labour on the Competencies Required in Modern Offices.

Variables/items	N	O	STD	z-Calc	df	z-tab	Dec.
Adaptive thinking competencies required in modern offices.							
Lecturers	17	3.60	0.53				
Employers of Lab.	35	3.62	0.54	0.0926	50	1.68	NS
Problem-solving competencies required in modern offices.							
Lecturers	17	3.48	0.63				
Employers of labour	35	3.65	0.49	0.0926	50	1.68	NS
Collaborative competencies required in modern offices.							
Lecturers	17	3.50	0.63				
Employers of labour	35	3.60	0.49	0.5744	50	1.68	NS
Computing competencies required in modern offices							
Lecturers	17	3.71	0.47				
Employers of Labour	35	3.62	0.46	0.6512		1.68	NS

Table 5 above shows that the calculated z-values: 0.0926, 0.0926, 0.5744 and 0.6512 are less than the table or critical value (1.68), df 50 at 0.05 level of significance, the researcher therefore rejected alternative hypotheses but accepted the null hypotheses. This means that there is no significant difference in the mean ratings of lecturers and employers of labour on the skills required in modern offices as a result of advancement in technology.

Ho₂: There is no significant difference in the mean ratings of male and female respondents on the competencies required in modern offices.

Table 6: Analysis of z-test Statistics of Male and Female Respondents on the Competencies Required in Modern Offices.



Variables/items	N	O	STD	z-Calc	df	z-tab	Dec
Adaptive thinking skills required in modern offices.							
Male	43	3.58	0.57				
Female	9	3.59	0.52	0.0516	50	1.68	NS
Problem-solving skills required in modern offices.							
Male	43	3.41	0.77				
Female	9	3.69	0.53	0.16809	50	1.68	NS
Collaborative skills required in modern offices.							
Male	43	3.51	0.61				
Female	9	3.62	0.40	0.6837	50	1.68	NS
Computing skills required in modern offices							
Male	43	3.56	0.50				
Female	9	3.62	0.44	0.36632	50	1.68	NS

The table 6 above shows that all the calculated z values are less than the table value, df 50 at 0.05 level of significance, the researchers rejected alternative hypothesis but accept the null hypothesis. This means that there is no significant difference in the means ratings of male and female respondents on the skills required in modern offices as a result of advancement in technology.

Discussion of Major Findings

The result of the analysis of responses in research question 1 showed that the higher level competencies identified were considered as highly required in modern offices. This is in tandem with the view of Onwukwe and Obeka (2014) that people need a broad range of skills in order to contribute to modern office activities. Therefore integrating technology into workplace through higher level competencies offers productivity enhancements essential to remaining competitive. Therefore the higher level competencies identified as indicated in table 1 above, are adaptive thinking skills required for optimum performance in modern offices. This is also in agreement with the views of Hornby (2016) and Ikpe (2016) that adaptive thinking skills are indispensable in the modern offices as a result of advancement in technology. Ohaegbulam (2015) also affirmed that problem-solving skills are required by office practitioners in modern offices because the office worker is required to possess higher competencies that will enable him do a co-ordination job instead of routine jobs. This is in agreement with the result of the analysis of responses in research question 2 as indicated in table 2 above. The findings in relative to research question 3 revealed that lecturers and employers of labour strongly agreed that all the items listed in table 3 were higher level competencies for collaboration activities required in technologically driven offices. This collaborates with the views of Ohaegbulam



(2017) and Templer (2005) that such collaborative skills are required since office managers' tasks have been broadened as a result of the changes brought by technology. Respondents also strongly agreed that computing skills as enumerated in table 4 above in answer to research question 4 are required in modern offices as a result of advancement in technology. This result is in agreement with the findings of Osuala and Okeke (2006), Oduma (2012), and Ohaegbulem (2014) that abilities to measure and cut different paper sizes, display a text vertically and horizontally equal which are computing skills are required in modern offices.

The two null hypotheses tested were upheld indicating that the respondents were of the same view and shows that they agreed that the identified higher level competencies are required in technologically driven offices probably because machines and systems have taken over the repetitive and manual aspects of the office duties leaving office practitioners with co-ordinating tasks that require higher level competencies.

Conclusion

Increased technology requires employee skill improvement to ensure that new technology devices are used correctly and integrated seamlessly into daily business processes. Therefore people need a broad range of skills in order to contribute to modern economy. Advancement in technology have brought a paradigm shift in office work processes, it is quite essential that improved skills are also required to complete the circle. Based on the findings of this study, it is therefore concluded that the paradigm shift brought about by advancement in technology, places a new and distinct demand for a certain set of 'office competencies' on office practitioners. Higher level competencies are therefore required due to the office restructuring, changes in procedure and practices that advancement in technology came along with.

Recommendations

Based on the findings and conclusion of this study, the following recommendations were made:

Employers of labour should make deliberate effort to train office employees and upgrade their skills to embrace these higher level competencies identified as required in modern offices as a result of technological innovations.

Curriculum planners should constantly review the curriculum and ensure that these higher order skills that office managers are now exposed to are emphasized and pedagogically entrenched into the teaching of office skills



Business education teachers should work towards getting comprehensive texts to help the teaching of these skills.

Lecturers and employers of labour should always be involved in curriculum planning for harmonization of learning objectives in line with technological innovations which have broadened the competencies required in technologically driven offices.

References

- Alvenfors, A. (2010). Introduction integration on the induction programmes importance for the integration of new employees. Retrieved from: [Http://urn.kb.se/resolve?un=urn:nbn:se:his:diva-428](http://urn.kb.se/resolve?un=urn:nbn:se:his:diva-428).
- Ezemoyi, C. M & Ugochukwu, N. (2014). Information and communication technology skills competencies perceived as required by accounting education teachers in Colleges of Education in Imo and Anambra States. *Nigerian Journal of Business Education*, 1(3), 295-305.
- Ikpe, D. N. (2016). *Professional career development in accountancy*. Enugu, Nigeria: J. & J. Publishers.
- James, A. O. (2009). *Management information system* (6th Ed). New York: Hill Irwin Inc.
- Oduma, C. A. (2012). *Fundamentals of entrepreneurial educations*. Abakaliki: Citizens Advocate Publishers.
- Ohaegbulem, N. M. (2014). *The modern office practice*. Enugu: UDAG Indomitable Publishers Ltd.
- Ohaegbulem, N. M. (2015). *The modern office practitioner*. Abakaliki: Ugub's Printing and publishing co.
- Ohaegbulem, N. M. (2017). Office Technology and Management programme for capacity building in Nigeria. *Info-Tech Journal: A Journal of Office Technology and Management*.1 (1), 5-11.
- Ojukwu, K. (2009). *Office Administration and management*. Aba: Adecrown Printers Ltd.
- Okon, E. E. (2018). Collaborative business education and economic diversification: Paths to sustainable development in Nigeria. *Nigerian Journal of Business Education*, 5(2), 367-384.
- Onwukwe, V. O. & Obeka, C. E. (2014). *Modern Office Administration and Management*. Aba: Windmill Publishing Company.
- Osuala, E. C & Okeke, A. U. (2006). *Administrative office management*. Enugu: Cheston Agency Ltd.
- Templar, R. (2005). *The rules of management: A definitive code for managerial success*. London: Prentice Hall Business.