



## PERCEIVED INFLUENCES OF OFFICE ERGONOMICS ON THE JOB PERFORMANCE OF CONFIDENTIAL SECRETARIES IN GOVERNMENT MINISTRIES IN EBONYI STATE

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### Abstract

*This study examined the perceived influences of office ergonomics on the job performance of Confidential Secretaries in Government Ministries in Ebonyi State. Four research questions as well as four null hypotheses guided the study. Descriptive survey research design guided the study. The population of the study was eight six (86) Confidential Secretaries in Government Ministries in Ebonyi State. There was no sampling. A structured questionnaire, validated by two experts in Business Education and one expert in Science Education Departments was used for the study. Using Cronbach alpha statistics, the instrument yielded a reliability coefficient of 0.96. Eight six (86) copies of the questionnaire were distributed, 81 was retrieved and used for data analyses. Mean and standard deviation were used to answer the research questions while t-test was used to test the hypotheses. The results of the study showed that office layout, office furniture, office lightning, and office temperature has influence on the job performance. Hypotheses tested shows that male and female Confidential Secretaries did not differ significantly in their opinions regarding the influences of office layout on job performance; highly experienced and less experienced confidential secretaries differed significantly in their mean responses on the perceived influences of office furniture on job performance; male and female Confidential Secretaries differed significantly in their mean responses on the perceived influences of lightening on job performance; there was no significant difference in the mean responses of Confidential Secretaries on the perceived influence of office temperature on job performance based on their educational qualifications, and also there is no significant difference in the mean responses of Confidential Secretaries on the perceived influences of noise on job performance based on their grade level. Based on the above findings and implications, it was recommended among others that management in Government Ministries should be concerned about office ergonomics, by create conducive work environment that attracts, retain and motivate its employees, since ignoring these principles will result in low productivity and also increased medical costs to its employees.*

**Keywords:** *Perceived, Influences, Office Ergonomics, Job performance, Confidential Secretaries*



## **Introduction**

In an effort to curb employees' job dissatisfaction and consequent disengagement from the office environment, it has become a new challenge for top management in various organizations to develop workplace environment that attracts, retains and motivates its workforce. Based on this, organizations are stepping outside their time-tested policies and comfort zones to create a new work environment that can satisfy both the physical and the emotional needs of the employees at its core. The organizations are also creating office environments where people can enjoy what they do, feel like they have a purpose, have pride in what they do and are allowed to reach their full potentials. This paradigm is connected with the new thinking that the office hazards associated with office ergonomics affects employee productivity and contraction in carrying out office function- both positively and negatively.

Peter and Nnadi (2018) noted that the question of industrial safety is fast changing the way office environment and jobs are designed. Business organizations are now designing their office environment to suit office employees' circumstances like the physically challenged employees. Jobs are designed not just to reduce or eliminate industrial hazards but ensure that the health of the office employees (like avoiding sitting all day long) is factored in. All these are aimed at achieving one thing, work environment-employee-job-fit. In the same vein, Hansika and Amarathunga (2016) stated that office environment features need be design in a favorable manner in which confidential secretaries will be motivated enough to perform well in the organizations. This implies that work environment has to be well taken care of like any other human environment as substantial numbers of individuals' hours are spent in the work environment, especially the office environment. Abdu (2017) noted that office environment need to be taken care of, because it involves a lot of continuous movements, activities and events which increase serious health issue, welfare and overall office workers' job performance. Abdu (2017) noted further that the work of keyboarding functions among typist, secretaries and computer users have been noted as a major factor in the development of carpal tunnel syndrome (a painful condition of hand, fingers and wrist caused pressure on a nerve because of repeated movement over time). Ekstrand, Mari and Sigrid (2018) noted that sitting in office environment while working for a very long period of time in office environment has been noted to cause lower back disorder and several cases of cardiovascular diseases (a disease connected with the heat and blood vessels).

According to Vimalunathan and Ramesh (2017) an office is a room where professional duties and administrative work is carried out in the organization building. Igwe (2019) also described office as any place where information on paper and information is documented converges, preserved and used for current operations of the businesses. Segun, Atinuke and Akeem (2017) define office ergonomics as the scientific use of human data to design a workstation,



work center, or working environment to create a job friendly environment for individual workers. International Ergonomics Association (2017) expressed office ergonomics as an integrated approach where considerations of environmental, physical, cognitive, social, organizational and other relevant factors are taken into account to intensify the design and appraisal of tasks, jobs, products, environments and systems in order to make them suitable with the needs, abilities and limitations of Confidential Secretary. According to Occupational Safety and Health Academy (OSHA) (2017), office ergonomics involves the designing of office environment, work practices and work flow to suit the Confidential Secretaries' comfort and spur their capabilities or productivity. It is also an aspect of office design that reduces risk factors that contribute to common work related injuries and illnesses, such as sprains and strain and cumulative trauma disorders (CTDs). The design of office environment that make secretaries to work in wrong postures all the time may bring excessive efforts, fatigue and discomfort to office employee. These designs in office environment according to Occupational Safety and Health Academy (2017) "can cause damage to some of the body unit such as muscles, tendons, ligament, nerves and blood vessels. Such Injuries are known as musculoskeletal disorders (MSDs)".

Job performance is defined by Baumeister and Showers in Omoneye (2016) as the execution of a task in a situation that allows optimal outcome. It is also seen as the ability of Secretaries to achieve the organization's criteria. Confidential Secretaries are regarded to achieve good performance when they meet up with the set goals and objectives of an organisation and as such, secretary job performance could have a great influence on an organization's overall performance. Mathis and Jackson (2019) noted that job performance of Confidential Secretaries is associated with quantity and quality of output, timeliness of output, presence on the job, efficiency and/or effectiveness of work completed. Thao and Hwang (2019) also expressed job performance as the successful completion of tasks by an individual(s), as set and measured by the system, to pre-defined acceptable standards while efficiently and effectively utilizing available resource within a changing environment. According to the National Safety Council in USA established that on an average workday, one million office workers will be absent from work due to job stress caused by ergonomic hazard. This implies that office environment has impact on the job performance of Confidential Secretaries.

Olufunwa (2015) defined Confidential Secretary as an individual who is employed in an organization for providing secretarial, clerical, and administrative support in order to ensure that services are provided in an effective and efficient manner. He is expected to have a proficient knowledge in the following areas: office administration, an understanding of relevant legislation, policies and procedures. A Confidential Secretary is a top-level officer who reports to a senior executive in an organization. Confidential Secretaries are employed in



Government Ministries to assist in processing information in the office. It is categorized in various grade levels based on the qualification and work experiences which includes: Confidential Secretary grade level 05, Confidential Secretary grade level 06, Confidential Secretary grade level 07, Confidential Secretary on grade level 08, Senior Confidential Secretary on grade level 10, Principal Confidential Secretary on grade level 12, Assistant Chief Confidential Secretary grade level 13 and Chief Confidential Secretary grade level 14

Exemplis (2014) noted that it is difficult for office employees to be productive when physically uncomfortable. Any office provisions including furniture fittings, level of noise, workstations, lighting, temperature etc. that makes Confidential Secretary uncomfortable in the short or long period, can affect their job performance and productivity. This is because office environment without ergonomic inputs can lead to the development of musculoskeletal disorders (MSDs) among secretaries in the organisation. This disorder is recognized as the most prevalent of all safety issues in the Nigerian public sector (Obi, 2015). This could invariably reduce the efficiency and performance of Confidential Secretary while working. In this study, the ambient features in office ergonomics includes: office layout, furniture, lighting, temperature, and noise, are the elements of the office environment which influence confidential secretaries' attitudes, behaviours, satisfaction and job performance.

Office layout according to Nwosu (2012) is the management of all physical components of the office within the available floor space to provide maximum effectiveness and the coordination of these components into an efficient and attractive unity. The layout of workspace is one of the main contributors to office design where it relates the usage of space and design of the workspace will increase secretaries' job performance. According to Chandrasekar (2020), the designs of office environment have influences on the behaviour of Secretaries and this behaviour drives the performance level low. This implies that office layout is an essential part of the ergonomic factor in the workplace; poor layout and overcrowding of office environment will not lead to optimization but only increases the chance of getting injured or getting involved in accidents such as tripping or striking against objects. Mwbex (2018) and O'Neil (2018) noted that office layout design help secretaries to engage with one another on a more regular and informal basis, and fosters an environment of mutual support and cooperation for effective job performance. In the same vein, Chandrasekar (2018) found that the poor layout of office environment has influences on behaviour of office workers and this behaviour drives the performance level to be very low.

Another part of office ergonomics is office furniture. Shruti (2019) stated that office furniture comprises of desks chairs, the filing system, shelves, drawers, etc. All these components have a specific role to play in the proper functioning of any office and the productivity and the efficiency of the Confidential Secretaries. Office furniture is important because Confidential Secretaries has to



work with them for the entire time that he/she is in office, and if he/she is uncomfortable and furniture is not user friendly, their working style and job performance gets hampered considerably, in turn affects job performance of Confidential Secretaries. Kingsley, (2018) noted that poorly designed furniture has influences on job performance because it can increase employees' stress and fatigue level which brings back pain and eyestrain and also lead to lack of morale and low job performance of workers. Sehgal (2012) also noted that office furniture such as desks chairs, the filing system, shelves, drawers, etc., have a specified part to play in the productivity and the efficiency of the office employees and the suitable functioning of any office. Also, this finding supports Shruti (2019) who noted that furniture in the office have a specific role to play in the proper functioning of any office and the productivity and the efficiency. Shruti further noted that non-ergonomic office furniture can also lead to health problems of employees, which again has an adverse impact on the productivity of office worker.

Temperature is the degree or intensity of heat present in a substance or object, especially as expressed according to a comparative scale and shown by a thermometer or perceived by touch (Dictionary.com). Amna, Umar, and Muhammad (2017) opined that Confidential Secretaries performance reduces when the office temperature increases. Sparks, Cable, Doran, and Maclaren (2018) also noted that office temperature has influence on the health of Confidential Secretaries negatively as there is an increase in cardiovascular stress because of temperature. Sparks et al further stated that the duration of a task and how long Secretaries exposes to high temperature can affect his/her job performance. This mean when the temperature is too hot (above than 900F) or too cold (less than 500F) can have influence on job performance of confidential secretaries. A study conducted by Fisk and Lei, (2016) study also revealed that performance increases when the office temperature is up to 21-22°C and decreases with temperature above 23-24°C. Kamarulzaman, (2018) also reveals that when the air-conditioning system was introduced, confidential secretaries feel that their workplace is more comfortable and the productivity tends to increase by 5-15 percent because they can concentrate on their work.

Another factor that can influence the job performance of secretaries is noise. Navai and Veitch (2013) defined noise as a physiological concept involving unwanted sound perceived by the listener as being unpleasant, bothersome, distracting or physiologically harmful. Noise is defined as unwanted sound, is the most common complaint in offices workplace. Many scholars have indicated that exposing office workers to noisy place can affect their job performance. Noise can be measured by decibels. When noise within office environment exceeded 80 decibels, can damage hearing, if it does exceed it, can lead to annoyance while performing the office task. Nwosu (2012) noted that noise within office environment can cause irritation, distraction and reduce performance of office workers. Similarly, National Open University of Nigeria,



(NOUN, 2014) opined that noise has been one of the major problems affecting effectiveness in an office. Excessive noise, apart from being injurious to health, has been known to affect productivity of Confidential Secretaries. According to Ajala (2012) besides discomfort, noise causes distraction as well which leads to reduction in productivity and increases the stress level and inaccuracies while performing office functions.

Government Ministries are Civil Service Departments that are responsible for delivering various types of government service. Each ministry is headed by a Permanent Secretary who reports to a commissioner in a State or Minister in the Federal Cabinet. It is also a public establishment, owned, financed controlled and managed organization. Therefore, effective and efficient Government Ministries are one that has workers who exhibit high levels of job quality performance, high productivity and organizational commitments. Ebonyi State has twenty one (21) Ministries and five (5) Federal Ministries located within the State Capital, Abakaliki. However, in the Government Ministries in Ebonyi State where professionalism is highly emphasized, it is worthy to note that in spite of the growing need for better office environment; much attention has not been given to the quality of workplace environment by management in the Government Ministries in Ebonyi State. This is evidenced by the unsafe and unhealthy work place environment in some of Government Ministries and non-Ministerial Departments in Ebonyi State, which among others include: poorly designed office layout, unsuitable furniture that are not ergonomics compliant, lack of ventilation, inappropriate lighting arising from erratic power supply, excessive noise due to generator explosion and insufficient safety measures in fire emergencies. These precarious situations have apparently led to intellectual drain and decrease in performance of Confidential Secretaries especially in the Government Ministries and non-ministerial Departments in Ebonyi State. It is against the foregoing that this study examines the perceived influences of office ergonomics on job performance of Confidential Secretaries in Government Ministries in Ebonyi State.

### **Statements of the Problem**

Office ergonomics today is gradually becoming a topic of interest among small and multi-national organizations. The increasing need for proficient of office employees especially, confidential secretaries have equally led to increased attention to office ergonomics. But, in today's industrialized and mechanical society, employers have been neglecting the importance of creating a conducive workplace where employees are given the prospects of having a variety of stimulating collaborative settings to make the working day more flexible, social and productive. According to Occupational Health Safety and Health Academy (OHSHA, 2017), as well as International Association for Improving Office Performance activities have noted that office ergonomics for long has not been receiving attention. However, office ergonomics has important



role to play in improving office employee's health, comfort, and productivity. Most importantly, many office employees, especially Confidential Secretaries, were reported to have given up their employment due to poor office environment. These secretaries have given employers, employees as well as scholars an eye opener to the need for improved attention to office ergonomics. Unfortunately, in our local environment, it is common that office ergonomics is never considered as a factor considered important in office productivity and output. The office comfort for office employees are not taken to focus.

Secondly a preliminary investigation conducted by the researchers shows that Government Ministries in Ebonyi State are characterized by unsafe and unhealthy work environment which include gross inadequate office space, unsuitable furniture and furnishing, lack of ventilation, in-appropriate lighting and excessive noise. This scourge will adversely affect the psyche, intellect and job performance of Confidential Secretaries in Government Ministries in Ebonyi State. This is so because by virtue of their working in such dangerous environment, they will be exposed to occupational hazards such as diseases and accidents. Again, it is also common to hear Confidential Secretaries in Government Ministries in Ebonyi State complaining of back-ache, poor vision, internal heat, insomnia and so on, due to poor attention to office ergonomics. However, one may begin to speculate that some of the health discomfort like stress, strain, muscular pains that often frustrate office employee performance may have been stemming from our poor attention to office ergonomics. It is on the basis of this neglect to office ergonomics and to the detriment of secretaries' job performance that this study seek to ask what is the perceived influence of office ergonomics on the job performance of Confidential secretaries in government ministries in Ebonyi State?

### **Research Questions**

To achieve the purpose of the study, the following research questions guided the study.

1. What are the perceived influences of office layout on job performance of Confidential Secretaries in Government Ministries in Ebonyi State?
2. What are the perceived influences of office furniture on job performance of Confidential Secretaries in Government Ministries in Ebonyi State?
3. What are the perceived influences of office temperature on job performance of Confidential Secretaries in Government Ministries in Ebonyi State?
4. What are the perceived influences of noise on job performance of Confidential Secretaries in Government Ministries in Ebonyi State?

### **Hypotheses**

The following null hypotheses formulated for the study were tested at 0.05 level of significance.



- HO<sub>1</sub>:** There is no significant difference in the mean response of male and female Confidential Secretaries on the perceived influence of office layout on job performance in Government Ministries in Ebonyi State.
- HO<sub>2</sub>:** There is no significant difference in the mean response of less experienced and highly experienced Confidential Secretaries on the perceived influence of office furniture on job performance in Government Ministries in Ebonyi State.
- HO<sub>3</sub>:** There is no significant difference in the mean responses of Confidential Secretaries on the perceived influence of office temperature on job performance in Government Ministries in Ebonyi State based on their educational qualifications.
- HO<sub>4</sub>:** There is no significant difference in the mean responses of Confidential Secretaries on the perceived influence of office temperature on job performance in Government Ministries in Ebonyi State based on their grade levels.

### **Method**

This study utilized descriptive survey design. The researcher chose this design for the study as this study aimed at surveying the opinions of Confidential Secretaries in Ebonyi State Ministries, Abakaliki. The study was carried out in Ebonyi State. Ebonyi State is a part of the South-East Geo-political zone in Nigeria with its capital town in Abakaliki. The choice of this area is that the present study has not been carried out in this area according to the record available to the researchers. The population of the study comprised of 86 confidential secretaries from State and Federal Ministries in Ebonyi State. The population involved 66 Confidential Secretaries from state and 20 Confidential Secretaries from Federal Ministries in Ebonyi State. The entire population was studied because it is of a manageable size. The instrument for data collection for this study was a structured questionnaire developed by the researcher titled: Perceived Influences of Office Ergonomics on the Job Performance of Confidential Secretaries Questionnaire (PIOEJPCSQ). The questions were structured on a 4point rating scale of Strongly Agree (SA); Agree (A); Disagree (D) and Strongly Disagree. The instrument was validated by three experts, two from the Department of Business Education and one from Measurement and Evaluation in the Department of Science Education all in Ebonyi State University, Abakaliki. Cronbach Alpha reliability coefficient was used to test consistency of the instrument and a general coefficient of 0.96. The researcher administered 86 copies of the questionnaire to the respondents with the help of two research assistants who were trained by the researcher in order to enhance the administration and the return rate of the questionnaire from the respondents. The respondents, due to their tight schedules, were given a day to complete the questionnaire after which they were visited for the retrieval of the completed copies. Data collected was analyzed using mean and standard deviation while t-



test was used to test the hypotheses at 0.05 level of significance. Any item with a mean rating of 2.50 or above was regarded as accepted while mean rating less than 2.50 was regarded as not accepted. For the test of hypotheses, the null hypotheses were rejected if the t-calculated is greater than the t-critical value at 0.05 level of significant, while it was accepted if the t-calculated is less than the t-critical value at 0.05 level of significance.

## Results

**Research Question One:** What are the perceived influences of office layout on the job performance of confidential secretaries in Government Ministries in Ebonyi State?

**Table 1:** Mean Responses of Confidential Secretaries' on the Perceived Influences of Office Layout on the Job Performance

S/N	Items	SA	A	D	SD	X	SD	Remarks
1	Office layout create flexible space for confidential secretaries	38	19	16	8	3.07	1.03	Accepted
2	Office layout enhance reduction in office set up	26	19	14	22	2.60	1.20	Accepted
3	office layout accommodates spreader number of confidential secretaries in offices	31	37	5	8	3.12	0.91	Accepted
4	office layout facilitate easy communication among confidential secretaries	30	22	8	21	2.75	1.21	Accepted
5	office layout increase interaction between confidential secretaries.	33	16	28	4	2.96	0.98	Accepted
6	office layout increases job satisfaction of confidential secretaries	18	33	24	6	2.77	0.88	Accepted
7	office layout increases confidential secretaries moral	26	39	12	4	3.07	0.81	Accepted
8	office layout increases high aesthetic judgment of confidential secretaries	31	22	10	18	2.81	1.17	Accepted
<b>Grand Mean</b>						<b>2.89</b>	<b>1.78</b>	<b>A</b>

The analysis in Table 1 reveals that all the six item statements received mean ratings above the cut-off point of 2.50. The mean ratings of these items range from 2.60 to 3.07. Therefore, the confidential secretaries accepted all the eight items as the perceived influences of office layout on the job performance of confidential secretaries.

**Research Question Two:** What are the perceived influences of office furniture on the Job performance of confidential secretaries in Government Ministries in Ebonyi State?

**Table 2: Mean Responses of Confidential Secretaries' perceived Influences of furniture on the job performance of Confidential Secretaries**

S/N	Items	SA	A	D	SD	$\bar{x}$	SD	Remarks
9	Good office furniture improve sitting posture to confidential secretaries for effective job performance	41	22	13	5	3.22	0.93	Accepted
10	Non ergonomic office furniture cause back pain to secretaries	39	12	25	5	3.04	1.02	Accepted
11	Ergonomic furniture reduces demotivation in completing office work	30	21	15	15	2.81	1.13	Accepted
12	Ergonomic furniture allows secretaries to adjust their allows based on individual performances.	37	17	21	6	3.04	1.01	Accepted
13	Ergonomic furniture increase moral of confidential secretaries	38	19	18	6	3.09	0.99	Accepted
14	Ergonomic furniture increase concentration of confidential secretaries which increase their job performance.	35	18	12	16	2.88	1.17	Accepted
15	Ergonomic furniture reduces the risk of getting injury by secretaries	30	25	19	7	2.97	1.07	Accepted
16	Ergonomic furniture reduces musculoskeletal problems to secretaries.	33	21	10	17	2.86	1.17	Accepted
<b>Grand Mean</b>						<b>3.37</b>	<b>1.06</b>	<b>Accepted</b>

Information on Table 2 shows that means 9, 10, 11, 12, 13, 14, 15 and 16 have high mean scores of above 2.50 which indicates that the respondents accepted all the items as influences of office furniture on job performance of confidential secretaries in Government ministries in Ebonyi State

**Research Question Three:** What are the perceived influences of office temperature on the Job Performance of Confidential Secretaries in Government Ministries in Ebonyi State?

**Table 3: Mean Responses of Confidential Secretaries' on the Perceived Influences of Temperature on the Job Performance.**

S/N	Items	SA	A	D	SD	$\bar{x}$	SD	Remarks
17	Excessive heat exposures create well-known risks of heat stroke to confidential secretary	34	21	11	15	2.91	1.14	Accepted



18	Excessive heat exposures cause office secretaries to heat exhaustion	43	14	18	6	3.16	1.01	Accepted
19	Excessive heat affects the psychological health of the confidential secretaries.	32	24	21	4	3.03	0.92	Accepted
20	Excessive heat exposures cause office secretary lethargy and tiredness	34	21	16	10	2.97	1.06	Accepted
21	Increased body temperature lead to decrease efficiency confidential secretary.	20	25	16	20	2.55	1.11	Accepted
22	Low temperature in office environment decrease job efficiency of confidential secretary due to cooler body heat and shivering	21	35	22	3	2.91	0.82	Accepted
23	Low office temperature causes secretaries to make mistakes than at optimal room temperature	26	21	11	23	2.61	1.21	Accepted
24	Good office temperature, increases better performance of confidential Secretaries.	30	34	12	5	3.09	0.87	Accepted
<b>Grand Mean</b>						<b>3.25</b>	<b>1.02</b>	<b>Accepted</b>

Data in Table 3 above show that means 25, 26, 27, 28, 29, 30, 31 and 32 received a mean score above 2.50. This implies that the respondents accepted that office temperature has influence on the Job Performance of Confidential Secretaries in Government Ministries in Ebonyi State

**Research Question Four:** What are the Perceived influences of Noise on the Job Performance of Confidential Secretaries in Government Ministries in Ebonyi State?

**Table 4:** Mean Responses of Confidential Secretaries' on the Perceived Influences of Noise on the Job Performance.

S/N	Items	SA	A	D	SD	$\bar{x}$	SD	Remarks
25	Nose cause discomfort on confidential secretaries which reduce their job performance	34	41	3	3	3.30	0.71	Accepted
26	Noisy office environment lead to laziness and lower productivity of office secretaries	23	32	17	9	2.85	0.96	Accepted



27	Noise causes lack of concentration on confidential secretaries	24	37	6	14	2.87	1.02	Accepted
28	Noise brings fatigue to confidential secretaries which affect their productivity	22	44	9	6	3.01	0.82	Accepted
29	Noise-induced hearing loss of the confidential secretaries in office environment	13	16	4	48	1.92	1.20	Accepted
30	Noise causes office ergonomics hazards which affect job productivity of confidential secretaries.	36	23	15	7	3.08	0.99	Accepted
31	Noise reduce the creativity of confidential secretaries which affect job performances	30	25	19	7	2.96	0.98	Accepted
32	Noise lead to errors in typing office documents which bring low job efficiency	35	19	17	10	2.97	1.07	Accepted
						<b>2.87</b>	<b>0.96</b>	Accepted

Data in Table 4 presents the results of the ratings of confidential secretaries on perceived influences of noise on the job performance of confidential secretaries. The Data Table a showed that items 33, 35, 36, 37, 38, 39 and 41 received a mean score above 2.50. This implies that the respondents accepted that noise within office environment influences their job performance

**Hypothesis One:** There is no significant difference in the mean responses of male and female Confidential Secretaries on the perceived influence of office layout on job performance.

**Table 5:** Summary of t-test Analysis of the Mean Responses of Male and Female Confidential Secretaries on the Perceived Influence of Office Layout on Job Performance

Variable	Number of Cases	Mean (X)	S.D	D.f	t.cal	t.crit	Decision	Significance
Male	36	2.63	0.96	79	0.61	2.000	Accept H <sub>0</sub>	Not significant
Female	45	2.48	1.19					

From the Table above it was found that the calculated t-value (1.39) is less than the critical t-value of 2.00 at 0.05 level of significance. Based on the result, the null hypothesis is accepted indicating that there is no significant difference in the



mean responses of male and female confidential secretaries on the perceived influences of office layout on job performance

**Hypothesis Two:** There is no significant difference in the mean responses of less experienced and highly experienced Confidential Secretaries on the perceived influence of office furniture on job performance in Government Ministries in Ebonyi State.

**Table 6:** Summary of t-test Result on mean scores of less experienced and highly experienced Confidential Secretaries on the perceived influences of office furniture on job performance

Variable	Number of Cases	Mean (X)	S.D	D.f	t.cal	t.crit	Decision	Significance
Highly Experienced	37	3.24	0.72	79	2.20	2.000	Reject $H_0$	Significant
Less Experienced	44	2.81	0.97					

The results presented on Table above shows that the t-calculated value 2.20 is greater than 2.00 critical value ( $2.20 > 2.000$ ) at 0.05 level of significance, and 79 degree of freedom. This implied that there is significant difference in the mean responses of less experienced and highly experienced confidential secretaries on the perceived influences of office furniture on job performance

**Hypothesis Three:** There is no significant difference in the mean responses of Confidential Secretaries on the perceived influences of office temperature on job performance in Government Ministries in Ebonyi State based on their educational qualifications.

**Table 7:** Summary of t-test Result on mean scores of Confidential Secretaries on the perceived influences of office temperature on job performance based on their educational qualifications

Variable	Number of Cases	Mean (X)	S.D	D.f	t.cal	t.crit	Decision	Significance
OND/NCE	45	3.20	0.86	79	0.57	2.000	Accept $H_0$	Not Significant
HND/B.Sc	36	3.30	0.78					

From the Table above, it was found that the calculated t-value (0.57) is less than the critical t-value of 2.00 at 0.05 level of significance. Based on the result, the null hypothesis is accepted indicating that there is no significant difference in the mean responses of Confidential Secretaries on the perceived influences of office



temperature on their job performance in Government Ministries in Ebonyi State based on their educational qualifications.

**Hypothesis Four:** There is no significant difference in the mean response of male and female Confidential Secretaries on the perceived influence of office noise on job performance in Government Ministries in Ebonyi State.

**Table 8:** Summary of t-test Result on Mean Scores of Confidential Secretaries on the perceived influence of noise on job performance based on their grade level

Variable (Grade level)	Number of Cases	Mean (X)	S.D	D.f	t.cal	t.crit	Decision	Significance
05-10	42	2.38	1.22	79	1.40	2.00	Accept	Not significant
11-14	39	2.75	1.13			0	HO	

The result presented in Table 8 show that the t-calculated value of 1.40 is less than 2.00 critical value ( $1.40 < 2.000$ ) at 0.05 level of significance, and 79 degree of freedom. This indicated that there is no significant difference in the opinion of confidential secretaries on the perceived influences of noise on their job performance in Government Ministries in Ebonyi State based on their grade level.

### Discussion

The findings of the study showed that office layout has influence on job performance of Confidential Secretaries in Government Ministries in Ebonyi State. This finding is so because when the office that is too crowded and restricted, lead to stress, pressure and other psychological impact which may make employees to feel unstable and have lack of freedom and motivation, on the short-run; it may lead to a very stressful environment, which decreases the quality of the job performance. This finding is in line with Mwbex (2018) and O'Neil (2018) who noted that office layout design help secretaries to engage with one another on a more regular and informal basis, and fosters an environment of mutual support and cooperation for effective job performance. In the same vein, Chandrasekar (2018) found that the poor layout of office environment has influences on behaviour of office workers and this behaviour drives the performance level to be very low. The result of the t-test analysis showed that there is no significant difference in the mean response of male and female confidential secretaries on the perceived influence of office layout on job performance in Government Ministries in Ebonyi State. This means that the opinions of the male and female Confidential Secretaries are the same indicating a common view of both on the perceived influence of office layout on job performance in Government Ministries in Ebonyi State.



The study revealed that office furniture has influence on the job performance of confidential secretaries in Government Ministries in Ebonyi State. This finding is in agreement with the view of Kingsley, (2012) who noted that poorly designed furniture has influences on job performance because it can increase employees' stress and fatigue level which brings back pain and eyestrain and also lead to lack of morale and low job performance of workers. Sehgal (2018) also noted that office furniture such as desks chairs, the filing system, shelves, drawers, etc., have a specified part to play in the productivity and the efficiency of the office employees and the suitable functioning of any office. Also, this finding supports Shruti (2018) who noted that furniture in the office have a specific role to play in the proper functioning of any office and the productivity and the efficiency. Shruti further noted that non-ergonomic office furniture can also lead to health problems of employees, which again has an adverse impact on the productivity of office worker. The t-test analysis revealed there is significant difference between less experienced and highly experienced confidential secretaries on the perceived influence of office furniture on job performance. This implies that there is significant difference between less experienced and highly experienced confidential secretaries on the perceived influence of office furniture on job performance.

The result of the investigation as shown in table 3 shows that office temperature has influence on job performance of confidential secretaries. This statement explains that when an employee feels comfortable with the workplace environment, things that can distract their work can be reduced and they can perform better. This finding concur with the findings of Moloney (2017) confirmed this when it was established that controllability of system for thermal comfort and lighting improved productivity of workers between 0.2 and 3 percent. Good ventilation and room temperature increased productivity and reduces stress in workers. This findings also agreed with the findings of Fisk and Lei, (2016) noted that performance increases when the office temperature is up to 21-22°C and decreases with temperature above 23-24°C. Kamarulzaman (2019) also reveals that when the air-conditioning system was introduced, confidential secretaries feel that their workplace is more comfortable and the productivity tends to increase by 5-15 percent because they can concentrate on their work. Furthermore, the results of the t-test analysis revealed that educational qualifications of Confidential Secretaries do not differ significantly in there mean responses on the perceived influence of office temperature on job performance.

The study also revealed that confidential secretaries agreed that noise within office environment influence their job performance. The study also revealed that: noisy office environment lead to laziness and lower productivity of confidential secretaries, noise causes lack of concentration on confidential secretaries, noise brings fatigue to confidential secretaries which affect their productivity, noise-induced hearing loss of the workforce in office environment, noise causes office ergonomics hazards which affect job productivity of



confidential secretaries, noise reduce the creativity of confidential secretaries which affect job performances, noise lead to errors in typing office documents which bring low job efficiency of confidential. The finding showed that the absence of noise increased confidential secretary's productivity due to less distractions and reduction in job-related stress. The findings is in consonance with work of Bruce (2018) who noted that reduction in office noise reduces physical symptoms of stress by as much as 27% and performance of data-entry workers increased with a 10% improvement in accuracy.

### **Conclusion**

Sequel to the findings of the study, this study establishes that office ergonomics plays a significant role in determining the performance of employees as it influences their job satisfactions level. Office ergonomics plays a vital role in motivating confidential secretaries to perform their assigned job. Good office environment if provided for Confidential Secretaries will go a long way to enhance their morale and job performance. When office environment is neat, noiseless, properly arranged well lighted and ventilated, Confidential Secretaries will feel a sense of belonging and this will make them to work efficiently and effectively. Good physical working environment inspires confidential secretaries to spend more time in their various offices, Confidential Secretaries responded emotionally better towards the provision of good office environment by not absenting themselves unnecessarily from work, lateness to work and other negative attitude will be drastically reduced. Good working environment increase Confidential Secretaries output therefore leading to growth of the organization. This aligns with the dictates of the theory this work was built upon which believe in the importance of recognizing human beings and their needs as paramount in achieving organizational commitment and high productivity. From the findings of the study, which identifies substantial office ergonomic lapses such as inadequate office illumination, use of un-ergonomic furniture, appreciable noise levels and pockets of safety hazards, it is obvious that Government Ministries in Ebonyi State is yet to leverage on its workplace environment as a means of motivating and enhancing the performance of its confidential secretaries.

### **Recommendations**

Based on the findings of the study the following recommendations are offered:

1. Management in Government Ministries should be concerned about office ergonomics, by create conducive work environment that attracts, retain and motivate its employees, since ignoring these principles will result in low productivity and also increased medical costs to its employees.
2. Management in Government Ministries should put ergonomic compliant chairs that are rotational and have adjustable height of 38-54cm which allows sufficient leg space and the ability to flex the knees by 90 degree



- with a backrest of 50cm in order to make confidential secretaries more comfortable while working.
3. Government should provide government ministries in Ebonyi State modern split air conditioners, standing or ceiling fan in every office in the ministries, to circulate the humidity and maintain an ideal office temperature of 22-26 degrees Celsius for effective discharge of office function.
  4. Management in Government Ministries in Ebonyi State should made work environment less noisy by regulating the activities within the ministries in Ebonyi State.

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