

## ARTIFICIAL INTELLIGENCE AND TRAINING PROGRAMME AS PREDICTORS FOR SECRETARIES' JOB EFFECTIVENESS

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### **Abstract**

*The study examined artificial intelligence and training programmes as predictors for secretaries' job effectiveness. Three research questions guided the study. A descriptive research design of a survey type was adopted for the study. The population comprised 63 secretaries at Tai Solarin University of Education, Ijagun, Ogun State, Nigeria. The sampling technique was used to select the sample size. Thus, since the study population is not large, the whole population was used, so there is no need for sampling. The study used a self-developed instrument tagged: Artificial Intelligence, Training, and Secretaries' Job Effectiveness Questionnaire (AITSJEQ) for data collection, with 0.95 reliability coefficient. Research questions 1, 2, and 3 were answered using Pearson Product-Moment Correlation (PPMC) and multiple regression analysis. The findings of the study indicated that there was significant relationship between artificial intelligence and secretaries' job effectiveness ( $r = 0.458$ ,  $p < .05$ ). It was indicated that there was positive relationship between training programme and the secretaries' job effectiveness ( $r = 0.604$ ,  $p < .05$ ). Also, the findings of the study indicated that was a significant composite contribution of independent variables on the dependent variable;  $R = 0.81$ ,  $p < .05$ . About 79% of variation in secretaries' job effectiveness was accounted for by explanatory variables (artificial intelligence and training programmes). It was recommended, among others, that there is a need for the government in Nigeria to invest significantly in infrastructural advancement and human capital development, which in turn will close the skill gaps, infrastructural deficits, and lapses that crop up from the unawareness of Artificial Intelligence in the technological advancement of Nigeria.*

**Keywords:** Artificial Intelligence, Training Programme, Secretaries' Job Effectiveness

### **Introduction**

The secretary is the assistant manager and information keeper of the organization. In some organizations, secretaries keep the secret of the organization in terms of vital documents for the organization's success. A secretary is an administrative professional who plays an integral role in business and other organizational environments. Secretaries are typically the individuals who maintain and organize office tasks, implement procedures, and carry out additional administrative

duties, depending on the nature of their employment. (Wilson, Erina & Moreblessing, 2024). 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 (Chinwe & Okem, 2021). Gambari (2024) stated that a secretary is an executive assistant who has mastery of office skills, demonstrates the ability to assume responsibility without direct supervision, exercises initiative, judgment, and makes decisions within the scope of assigned authority.

The secretary's functions and effectiveness depend much on the availability of office technology and equipment, as well as the skills and competencies of the secretary. Many organizations have come to appreciate the role and importance of the secretary, and also the need to provide the needed office machines and equipment for the efficacy of the secretary's job effectiveness in their functions. Secretaries job effectiveness entails work efficiency and how the secretary is able to carry-out their daily duties without any form of hindrances. The duties of a secretary could vary from one organisation to another depending on the nature and size of the organisation but the common duties are: (i) answering and directing phone calls, (ii) organizing and distributing messages, (iii) maintaining company schedules, (iv) organizing documents and files, (v) greeting business clients and guests, (vi) documenting financial information, (vii) maintaining and ordering office supplies, (viii) scheduling meetings and conferences, (ix) supervising staff and new employees, (x) coordinating with other organizations, and (xi) implementing administrative procedures (Chinwe & Okem, 2021).

Today's secretaries are exposed to office technology and automation, including the internet, which makes work easier and knowledge more accessible. It is now easier to send messages by telex, electronic mail (e-mail), fax, and telephone. Other office gadgets available to the secretary are a photocopying machine, duplicating machines, dictating machines, and printing machines among others. This is the era of computers and information technology, which has become an enabler of greater convenience. Secretaries now have many technologically advanced office gadgets to ease their jobs and enhance proficiency and productivity, leading to improved access to goods and services. Today's office is highly mechanized and automated (Gambari, 2024).

The secretarial profession in the past used to be the possession of manual and electronic typing skills, shorthand, good conduct, and character. But today, computers are in abundance, which is common to the majority of people, and also in offices. The confusion people or other practitioners have about the concept of secretary ship is an illusion, in that they assume that since the majority of the working class use computers both at home and in their offices, this threatens or invades the work of a secretary. The way most tertiary institutions design the secretarial programme. This may affect the credibility of those studying Office Technology and Management (OTM) that is, if not well designed with the necessary subjects to follow the modern trends of technology. The secretaries' role is a profession that demands skills that nobody else can have if you have never studied secretarial skills, by way of typing and shorthand.

Typewriting skills as a field of study teaches students about how to type with speed and accuracy; how to type memos, letters, reports, tables among others; how to correct people or bosses written errors and mistakes, which has to do with comprehension, English grammar and spellings; should be able to identify people or bosses handwriting even if it is horrible to be read by any other person; adhering to all the standards and practices under the typewriting skills such as paragraphs, spaces, designs of business letters, creative typing, clear and admirable presentation of work; punctuation; and many more (Durojaiye, 2023). Our interactive smartphone devices, tablets, Google Assistant, and Amazon's Alexa are examples of such technology breakthroughs made possible through Big Data, Machine learning, and Artificial Intelligence programs. Manufacturing industries are using such high-end information technologies to create a competitive advantage by introducing smart ways to operate their production units based on recorded data instances (Heath, 2020).

Artificial intelligence (AI) is revolutionizing industries and transforming the way we work in an office (Russell & Norvig, 2020). To stay competitive, it is essential to develop skills in AI and machine learning. Recent studies have shown that AI training programmes can significantly improve workforce productivity and innovation (Bughin et al., 2018). By using Artificial Intelligence training, organizations can upskill their workforce and stay ahead of the curve (World Economic Forum, 2020). AI-trained professionals can develop intelligent systems, automate processes, and uncover valuable insights from data. A comprehensive training programme in AI can equip individuals with the knowledge and expertise needed to design, develop, and implement Artificial Intelligence solutions (Jordan & Mitchell, 2015).

Automation in production units, logistics firms, advanced robotics, and self-driven cars are the results of Machine learning and Artificial Intelligence technologies. In such a scenario, it becomes an imperative for all professionals to understand this era of change and accordingly get ready for the future. Being identified as Key Managerial Personnel, Company Secretaries play a pivotal role in ensuring that the company pursues a highly ethical code of conduct and its Board can implement and maintain a transparent corporate governance mechanism. With time, the role of a Secretary has grown manifold since it was first introduced, and now, while most countries have already paved a path for going digital, the existing conventional definition of the profession of company secretaries will also take new dimensions (Durojaiye, 2023).

With the rapid involvement of AI and Machine learning in the business decision-making field, company secretaries should realize that they need to be very attentive to what is happening in their organization and what is being circulated to their Board of Directors. Company secretaries should take more interest in the use of data and information services through which major decisions are being taken in the company and at board meetings, so that, while any decision is stuck somewhere, they can pass on their expert advice to the directors. To imagine a Robot in board room may seem funny, but is equally possible too. AI-powered robots are already being used in various industrial units and logistics firms to perform routine tasks. Hence, it is very much possible that these robots are trained with all routine tasks that secretaries do, such as recording minutes, filing routine compliances, maintaining checklists, compliance management concerning various laws applicable to

a company, and automating corporate communications sent to the board (Durojaiye, 2023). All is possible, but still it would be wrong to say that automation would swipe away the jobs of secretaries as machines are machines and they would not be able to give particular inferences on critical instances and cases based on the specific past experiences and human expertise.

However, secretaries may need further training to understand the intricacies of AI operations in their organization. Training will help the secretaries to meet the challenges that may arise in the course of carrying out their duties, thus, there must be a planned process to modify attitude, knowledge, or skill behaviour through learning and experience to achieve effective performance in a range of activities. Muhoho (2018) opined that secretaries' training has been identified by various scholars to be very crucial to an organization and its effectiveness. In light of the above, organizations are therefore encouraged to train their staff, including secretaries, to the maximum of their ability to enhance their effectiveness. Secretaries' training and development are typically associated with improving the performance, knowledge, and skills of employees in their present job position. Muhoho (2018) highlighted three specific training objectives of secretaries. (i) to develop the competences of employees and improve their performance. (ii) to help people grow within the organization so that, as far as possible, its future needs for human resources can be met from within the organization, and (iii) to reduce the learning duration for secretaries starting in new jobs on appointment, transfer or promotion, and ensure that they become fully competent as quickly and economically as possible. It is therefore, for the organization to offer systematic training and career development programs for its secretaries. Training has been recognized to help secretaries in their current jobs and meet current performance requirements by focusing on specific skills required for the current need (Muhoho, 2018).

### **Statement of the Problem**

The integration of Artificial Intelligence (AI) in the business world has drastically changed the way office practices and procedures are conducted. Though technology seems to have made it possible for office practices to easily carry out office functions, however, it appears that offices in organizations have failed to take advantage of the benefits provided by AI. This is evident in cases where offices in the organization are littered with files and cabinets rather than having data stored on servers. Furthermore, there are also cases in some organizations where clients spend months carrying around files and papers to process their contracts when they can do such online. This shows that the administrators of the organization do not fully appreciate the efficacy of full automation of office practices. This brings the need to examine artificial intelligence and training programmes as predictors for secretaries' job effectiveness.

### **Purpose of the Study**

The purpose of the study was to examine artificial intelligence and training programmes as predictors for secretaries' job effectiveness. Specifically, the study sought to examine:

1. The relationship between artificial intelligence and secretaries' job effectiveness;
2. The relationship between the training programme and secretaries' job effectiveness; and

3. Composite contributions of artificial intelligence and training programme on secretaries' job effectiveness;

### Research Questions

The following research questions guided the study:

1. Is there any relationship between artificial intelligence and secretaries' job effectiveness?
2. How are the training programmes and the secretaries' job effectiveness related?
3. What is the composite contribution of artificial intelligence and training programmes on secretaries' job effectiveness?

### Methodology

A descriptive research design of a survey was used for the study. This design is considered appropriate to enable the researcher to investigate thoroughly the existing phenomena without any manipulation or bias based on individual respondents' views, opinions, and samples on the subject matter. The population of this study comprised 63 secretaries in Tai Solarin University of Education, Ijagun, Ogun State, Nigeria. The sampling technique was used for selecting the sample size. Thus, since the population of the study is not large, the whole population was used, and therefore, there is no need for sampling. The study used researcher researcher-developed instrument, tagged Artificial Intelligence Training and Secretaries' Job Effectiveness Questionnaire (AITSJEQ) is a self-structured instrument geared towards eliciting information from the respondents regarding artificial intelligence and training programmes as predictors for secretaries' job effectiveness. The questionnaire requested responses on a four-point Likert scale format. To ensure the content validity of the instrument (AITSJEQ), a copy of the instrument was made available to the experts in the related field for corrections. Reliability of the instrument was assessed using Cronbach's alpha. In this case, copies of the instrument (AITSJEQ) were administered to 10 secretaries in Olabisi Onabanjo University, Ago-Iwoye, who are parallel to the sampled population. The collected data were analyzed using Cronbach's Alpha, and 0.95 was reported as the reliability coefficient of the instrument.

Research questions 1, 2, and 3 were answered using Pearson Product-Moment Correlation (PPMC) and multiple regression analysis, respectively.

### Results

**Research Question One:** Is there any relationship between artificial intelligence and secretaries' job effectiveness?

**Table 1: Relationship between artificial intelligence and secretaries' job effectiveness**

Variables	Mean	SD	df	r-value	p-value
Secretaries' Job Effectiveness	33.62	16.94			
Artificial Intelligence	19.06	11.52	51	.458	.002

Source: Field Survey, 2025

The result in table 1 indicated that there was significant relationship between the independent variable and the dependent variable (Artificial Intelligence and secretaries' job effectiveness) in the order of ( $r = 0.458$ ,  $p < .05$ ). On this premise, it was concluded that there was positive relationship between artificial intelligence and secretaries' job effectiveness.

**Research Question Two:** How does the training programme and the secretaries' job effectiveness?

**Table 2: Relationship between training programme and secretaries' job effectiveness**

Variables	Mean	SD	Df	r-value	p-value
Secretaries' Job Effectiveness	33.62	16.94	51	.604	.001
Training Programme	20.19	8.002			

Source: Field Survey, 2025

The result in table 2 showed that there was significant relationship between the independent variable and the dependent variable (Training programme and secretaries' job effectiveness) in the order of ( $r = 0.604$ ,  $p < .05$ ). On this premise, it was concluded that there was positive relationship between training programme and secretaries' job effectiveness.

**Research Question Three:** What is the composite contribution of artificial intelligence and training programmes on secretaries' job effectiveness?

**Table 3: Composite contribution of artificial intelligence and training programme on secretaries' job effectiveness**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.81 <sup>a</sup>	.79	.005	3.21026

a. Predictors: (Constant), Artificial intelligence, and training programme

b. Dependent variable: Secretaries' job effectiveness

The result in table 3 showed that there was significant composite contribution of independent variables on the dependent variable (Artificial intelligence and training programme);  $R = 0.81$ ,  $p < .05$ . The table further revealed about 79% variation in secretaries' job effectiveness was accounted for by explanatory variables (artificial intelligence and training programme).

### Discussion of Findings

The findings of the study revealed that there was a positive relationship between artificial intelligence and secretaries' job effectiveness. The findings of the study also showed that improved secretaries' productivity, reduces turnover, job satisfaction, improved skills, job communication, adopt technologies on the job, bridged job skills gap, equipped secretaries to adopt technologies on the job, Bridged job skills gap, team management skills, improved secretary job engagement, and enhanced stronger workforce were among the benefits of training on the secretaries' job effectiveness. There was positive relationship between training programme and secretaries' job effectiveness.

These findings were in agreement with Nelson's (2024) findings show that artificial intelligence impacts the language and communication of Nigerian undergraduates both positively and negatively,

and this includes, among others: improvement of their vocabulary and grammar, and overdependence on AI technology for English language vocabulary development. Chibuzo, Dike, and Mathias (2024) revealed that AI applications in Nigeria's public service are still in their early stages, with promising developments in areas such as e-governance, healthcare, banking sector, real estate business, and law enforcement/security outfits. Ihejirika, Ogana, and Uzezi (2023) revealed that the digital divide is affecting rural dwellers, individuals, groups, and regions with socio-economic or infrastructural limitations. Akosile, Bnajo, and Oyefodunrin (2022) indicated that there is a positive and significant relationship between automation job performance, job enhancement, upskilling, and wages and benefits.

Based on this finding, organizations should improve on the use of automation in increasing performance, upskilling employees, and enhancing them on the job. The findings of the study further corroborated with Asogwa and Agusiobo's (2021) findings from which revealed that modern technologies enhance the secretaries' job performances and that secretaries are facing some problems using modern technologies in enhancing their job performances. Chinwe and Okem (2021) 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. Shakirah (2018) established that respondents were aware of the various aspects of training and development, there was no strategic framework in place as the basis for an operational plan for the training and development strategy, even though all respondents indicated that training and development was part of the strategic business plan process of the YMCA. Muhoho (2018) indicated that the 2nd VPO has a training program in place, but it is poorly planned, not systematic, and not coordinated.

However, all interviewed employees were aware of the existence of a training and development program in this organization. Adelere's (2017) findings indicate that Organizational Productivity is subject to staff training and development. Hypothesis two shows the value of  $R$  is 0.779 which is the correlation between observed and predicted values of the dependent variables, the coefficient of determination ( $R^2$ ) value of 0.607 shows that the explanatory variables accounted for 60.7% of staff salary, while the remaining 39.3% is explained by other exogenous variables that are excluded in the model, the calculated t-statistics for the parameter estimate of SS ( $t = 9.550$ ),  $p < 0.05$  is greater than tabulated t statistics (1.330) at 0.05 level of significance.

## **Conclusion**

Based on the findings of the study, it can be concluded that both artificial intelligence and training programmes are significant predictors of secretaries' job effectiveness. The study revealed a positive relationship between artificial intelligence and job effectiveness, as well as between training programmes and job effectiveness. Furthermore, the combined influence of these independent variables on secretaries' job effectiveness was statistically significant, with a strong correlation coefficient  $R = 0.81$ ,  $p < .05$ .

### **Recommendations**

Based on the findings of the study, the following recommendations are provided.

1. The government should close the widening gap of digital divide in the rural areas by installing technological enhancements to drive artificial intelligence in teaching and learning; the teachers should be intermittently trained to be acquainted with the current trend of artificial intelligence tools used to ameliorate the difficulties posed by the new innovation.
2. The Management of tertiary institutions should ensure that office automation tools and facilities are readily made available for secretaries to enhance their productivity.
3. Secretaries should be empowered through regular training and development so as to acquire new skills, boost their confidence, and contribute more effectively to organizational success.



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