ASSESSMENT OF LECTURERS' AWARENESS, READINESS AND UTILISATION OF ARTIFICIAL INTELLIGENCE FOR EDUCATION IN A NIGERIAN UNIVERSITY

BY

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MTech/SSTE/FT/2018/8064

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FEDERAL UNIVERSITY OF TECHNOLOGY MINNA

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A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGERIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF TECHNOLOGY IN EDUCATIONAL TECHNOLOGY

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ABSTRACT

Artificial Intelligence (AI) plays a significant role in the educational sector offering lecturers and students innovative ways of teaching and learning, assessment, acquiring skills, communicating, sharing, creating, grading and interacting with learning materials. Unfortunately, Nigerian universities are yet to fully explore AI in their educational activities, which may be due to inadequate awareness, lecturers' attitude, lack of self-efficacy, opposition to change, and lack of adequate preparedness to utilise AI. Hence, this study assessed lecturers' awareness, readiness and the utilisation of Artificial Intelligence for education in a Nigerian university. The study adopted a descriptive survey research design. A sample of 271 lecturers were selected using Proportionate Stratified Randomly Sampling Technique. The study was guided by 12 research questions and nine corresponding research hypotheses. A researcher-designed structured questionnaire was used for data collection that was validated by four experts. The questionnaire was pilot tested and the data obtained were subjected to statistical analysis using Cronbach Alpha Correlation Formula and reliability coefficients of 0.87, 0.80, and 0.82 were obtained for awareness, readiness and utilisation of Artificial Intelligence respectively. Descriptive statistics of Mean and Standard Deviation were used to answer the research questions. Findings of the study revealed lecturers were aware and ready to use AI with grand means of 2.57 and 3.12 respectively, lecturers rarely used AI with a grand mean of 1.85. Independent samples t-test analysis showed that $t = 1.047$, $p>0.05$ indicating no significant difference in the mean response of male and female university lecturers' level of awareness of Artificial Intelligence for education, $t = 2.157$, $p>0.05$ indicating no significant difference in the mean response of male and female university lecturers' readiness to use Artificial Intelligence. However, One-way ANOVA reported that $F_{(2,268)}= 5.088$, $p = 0.007$, $p<0.05$ indicating a significant difference in the mean response of university lecturers with different academic qualification on utilisation of Artificial Intelligence for education in favour of lecturers with Bachelor Degree. In light of the findings, it was recommended among others that conferences, seminars and workshops should be organised for university lecturers to increase their level of awareness of the numerous opportunities that AI can provide in augmenting their educational activities. University management should regularly organise hands-on and professional training programmes and retreat for lecturers to teach with and effectively use AI.

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