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ARTIFICIAL INTELLIGENCE INNOVATION AND BUSINESS ADMINISTRATION GRADUATES EMPLOYMENT IN TRANSFORMATIONAL ERA

BY

¹RASAKI AKANNI RAJI

BUSINESS ADMINISTRATION DEPARTMENT

Email: rasaki.raji@federalpolyilaro.edu.ng

08060553345

&

²KAFILAT OLUYEMI RAJI

DEPARTMENT OF MECHANICAL ENGINEERING

FEDERAL POLYTECHNIC ILARO, OGUN STATE

Email: oluyemi.raji@federalpolyilaro.edu.ng

08069608766

Abstract

This study x-rayed Artificial Intelligence and Business Administration Graduate in transformational age. Population was derived using cohcran Model for infinite population which was 384 used for distribution of the questionnaire while 284 were retrieved used as sample size for the study. The variables of study were which Automation ,Machine Learning and Expert system were found significant in their jointy interaction at $P=0.005$. The study found that AI has effect on graduation of business Administration age hence, recommendation was made that re-orientation, awareness and inclusion.

Keywords: Transformational, Artificial, Employment, Administration, Intelligence Sustainability

INTRODUCTION

The degree of unemployment of graduates in Business Administration and Management are on the high sides (Alheadary, 2023). Business Administration as a mere course of study like history or a professional course has been a subject of debates from the scholars and practitioners; yet it is inconclusive discussion. Business Administration is a course which involve multidisciplinary framework or integrated developmental studies plus basic sciences because of its background from diverse social sciences, as sociology, anthropology, economic, psychology as well as some other sciences make the discipline as jack of all trades. Business Administration involves with aspects of processing which entails management of business activities, that encompasses planning process, marketing sales, and recruitment etc. (Umezulike & Ambakederemo, 2019). Management is germane component in Business Administration that include principle and practices which entailed planning, organizing, leading and controlling of the resources. Modern studies stressed the important of Management education to responds to always changing business environment and technological innovations. (Smith & Jones, 2020). Marketing is another germane component of

Business Administration curriculum which involves promotion, branding, consumer behaviours, Risks and financial management are another important branch of business Administration which entails mitigating potential risks in relations to financial resources of an organisation, while the financial management entails financial analysis, budgeting, financial planning and investment strategies availability (Wang & Chan, 2022). The fourth industrial revolution 4.0 otherwise known as Artificial intelligence era has profound effect on business operations and scopes, especially the graduate's skill requirements. The employment of graduates, with emphasis on the Non-science-Technical graduates in developmental studies (Business Administration) has been a source of concern, as gamut of graduates do not possess the AI skills needed for business operations (Akinyele & Adebayo, 2020). It has been established according to Hawking (2020), the most germane skills to acquire in life are obtained via interpersonal experiences and is found in Liberal and Arts. Human bodies closed nearness to another, human bodies arouse actual compassion, empathy, vulnerability and social-emotional intelligence. These skills, interestingly are the skills specific to human beings that robots and machine are unable to demonstrate. Hence, the gap between the labour market of business analytics and the graduates (Alheadary, 2003). Turel and Kapoor,(2016) in Nigeria, graduates of Business Administration could be found in work related areas as; Sales Representatives, Customer Relationship cares both in manufacturing and financial institutions, human resources management function, and organization, relationship officers, all these requires much human interfaces and relationship skills to deliver expected roles. AI, is one of the critical branches of 4.0, along with the transformation in Mechanical, Electrical and Information technology and it functions in promoting of digital economy indeed. Artificial Intelligence (AI) involves ranges of technologies created to carryout assignments that typically requires human intelligence, as reasoning, problem solving, language interaction and learning (Shen & Zhang, 2024). Artificial intelligence has developed with great impacts in recent decades, that leads to advancement of systems competently surpassing human cognitive reasons in diverse domains. Machine learning, Neural network are important features that AI that enables the computer to learn from gamut of data set without explicit programming (Waring, 2024; Shen & Zhang, 2024).

Automation of routine jobs and argumentation the very complex tasks. AI is no longer confined to manufacturing or simple realms that call for creativity thought, reasoning analytically, and decision making (Brynjolfsson, Mitchell & Rock, 2018).

Expert system another branch of AI designed to mimic human decision-making. Making use of knowledge based information to bring solutions to attendance tasks. Expert systems, extensively used across industries such as chain management, finance, and healthcare, a situation that requires human problem solving as well required to improve decision-making. (Onyeocha & Oguoma, 2021). Strategic decision-making procedures with ambit of Artificial Intelligence rely on only a rational model, nevertheless, skills like abstract, context analysis does not available for smart machine. Hence, in a situation that abstract thinking assist a person to work on diverse conceptual basis, context evaluation , assist the human to make strategic decision, even he take absence of information as well as condition of asymmetry of this information (Ibrahim, El-Emary, Al-Otaibi & Al-Amiri, 2020).

1.2 Statement of the problems

The challenges in development of AI that is not capable to understand background knowledge which must received by physical interactions with human beings of reproducing any knowledge stored into it. Hence, such Knowledge are not subjected to reflection, critical or normative activities which all baked by background knowledge (Balogun, 1993). High modernization has

destroyed jobs in industries, the left over jobs not being suitable for low skilled individual or on the job training concept. Besides, the intelligent machines that could supervise themselves, can reduce human attention to a minimum. Yet, technical installations became more delicate, difficult to run, involve high-cost of maintenance, highly sophisticated in its installations and in changing them a little processes. (Bhadmus, 2004). Human beings could think, discriminate and make valuable judgement and analysis momentarily but Artificial intelligence components could not do these. Human beings can be appealed to, in order to make necessary change and adjustments, besides, he can also learn through observation but robots could not do these. Robot could not face challenges, reacts, rob and reflects on situation in difficulty time robot cannot face challenges, reflect and react to situation like human being (WAEC, 2015) . There are gamut of evidence on academic literature that Artificial intelligence have a substantial disruptive tendency on Jobs with some work being lost, changed or work been established (BA &RS, 2018).

1.3 Broad Objective

The thrust of this research work centered on Artificial intelligence (AI) innovation and sustainability of Business Administration Graduate employments in transformational in Ogun State.

1.3.1 The specific objectives are:

- (i) To examine the effect of Automation on Business Administration graduate in transformation age.
- (ii) To evaluate the effect of expert system on the of Business Administration graduates employment in transformation age.
- (iii) To evaluate effect of machine learning on Business Administration graduates employment in transformation age.

2.0 LITERATURE REVIEW

Artificial intelligence is one of the most important areas in Engineering and Computer Science. Artificial intelligence is simulation of human intelligence processes methods by computer systems of learning, reasoning and self-correction as well as capabilities of machine to imitate behaviour of human beings. (Kumar, 2018). It is also considered by many as general purpose technology (GPT).

Types of Artificial intelligence

According to Kumar (2018) these are:

Type 1:

Weak AI or Narrow AI which focused on one narrow task, the activities that machines that are so intelligent carry out to their own job could be built-in such a way that they see smart.

Strong AI: The machines that can actually think and perform task on their own just like a human being.

Type 2 (functionalities Based)

Reactive Machines: this a part of basic areas of AI. It does not have past memory, and it could not make use of past information to information for the future actions.

Limited Memory: AI components that can past experiences to inform future decisions. The decision making roles is self-driven cars developed in this manner.

Theory of mind: this kind of AI should be able to comprehend people, emotion, belief, thoughts expectation and be able interact socially even though a lot of improvement are there in this area, this types of AI is not yet complete

Self-Awareness: The AI that has its own, super intelligent, conscious, self-awareness and sentient (That is complete human being Type) this does not exist yet.

Components of research

Automation

This is an introduction of AI related components to perform jobs which are usually undertaken by human beings such as introduction of machine, robotic, computer software, to carry out these jobs. Automation is usually used to refer to migration of human jobs and assignment to computer and robots, whether or not AI technologies are required to allow this (British Academy & Royal Society 2018). Automation of Customer Service processes NLP capabilities to resettle complex customer queries to reduce the Herculean task on human agents (as examples of automation can be seen in business (Gariclia & Gon Zailez – Tejero, 2024) AI and robots is usually linked with automation, substantially in place of work transformation, hence, destruction of jobs, in relation to human interactions, usually being rendered redundant or obsolete. (Jones, 2017, Samek & Squicciarini, 2024)

Expert System

Miller (2020) The Based Knowledge of an expert system comprises of gathered rules, facts and heuristics that guide the system in decision making. The development of this system it provides perfect response and accurate in place, needing expertise increases. Expert systems have gained ground in usage in Engineering, Finance and medicine to give expert advice without human interface, making them goods & valuable assets in the organization of their usages.

Machine Learning

This is the usage of artificial intelligence which entails taking of stored data and usage of it to learn from examples rather than being stated drawn up for specific outcomes, address that there things driving up machine learning explosion. Increased data importantly algorithms and more powerful computer software (Bryn Jolfsson & MCFee, 2017) conducted new research into how AI might impact on labour market in developing countries.

Empirical

Ugwuozor, & Egeriti, (2024) Conducted research on AI and future work. Recent graduates perspective the objective was to assess student perception of the objectives was to assess student perception of the level threat technology they may face in future in relation to supply of labour. The population of the study was about 2,000 NYSC members posted to Enugu State while 128 corps member posted to Enugu East LGA of the study are while 112 questionnaire were collected used as Sample of the study. The Study employed descriptive survey, with MLM to describe the level of their awareness and preparedness. It was found that most graduates were unaware about potential AI risks and not prepared. It was gathered that there high of deficiency in curricular of

Graduate. It was recommended that the study raised important questions about the readiness of graduates to survive and thrive in the digital future of work. The innovation of such kinds improve service and product as in the model market do not expect.

Marwan (2020) investigated AI on graduate's employability for University graduates. Objectives of study was to explore how university institution can prepare the student for workforce being affected through adoption of AI. Quantitative approach unemployed on variables or propels of research 300 Graduates and 30 Faculty members were interviewed. The potentially to displace specific lower skill work it also created opportunities and it was concluded that universities needed to upgrade their curriculum with AI contents. It was recommended that technical skills should be combined with critical thinking and ethnical decision making abilities.

Acypreste & Parana (2023) instituted research on AI and employment with objectives based on how AI influence displacement of job between 2008 -2020. The method employed base on literature using biometric procedure of using articles on AI and employment. If 1500 published articles of 1500 combined it was found that job polarization, education, change, disruption and AI is reshaping the global market and there is a need for protective policy measures in management its impacts on job of displacement. The author recommended new research into how AI might impacted labour market in developing countries.

Theory of innovation

The research work is anchored on disruptive innovation theory propounded in 1997 by Clayton Christensen. Disruptive innovation are types of innovation that assist to create brand new market and value network over specific time frame, hence displacement of classical technology. The theme of technological innovation is centered on how new technologies took -over apparently superior technologies in the market which usually not wanted by the users. It relate to AI innovation of Expert System, Automation, and Machine Learning and internet of things have impacted on processes of everything. Disruptive innovation happens as a process. Hence, incremental improvement in the product development efforts that usually enhances the performance of the disruptive technology in terms of its main stream attributes in relation to the degree of taken of main stream customer (Naqshbandi & Sharan . 2015)

3.0 METHODOLOGY

The research adopted descriptive survey. The research adopted the model meant for infinite population using Cochran, for the research which is put at 384 respondents of organization both public and private organization where business administration graduates were employed. Minimum of one questionnaire distributed/delivered to different organizations. The questionnaire was designed in 5 points likert scale measures and moderated by professionals in the related disciplines and orientations. Out of 384 questionnaires sent out 218 questionnaires were received which used as sample for the research. The instrument engaged shows 0.74 in alpha crobranch Reliability test. This means the instrument engaged is reliable.

Table Model Summary

Model	R	R. Square	Adjusted R. Square	Std Error Estimate.
1	.38	.0144	.132	21420

Source: Research Computation Feb,2025.

(a) Predictors: (constant) Machine, Automation, Expert system.

Table 2: show the joints interaction of all independent and variable ML, ES, All which is significant with the employed model. The joints of R 0.144 which would change 14% and means 86% is not within realms of. explainable factors outside the scope of the study.

Table 3 ANOVA

Model		Sum of Squares	Df	Means square	F	Sig
1	Regression	1.657	3	.552	12.037	.000
	Residual	9.819	214	.046		
	Total	11.476	217			

Source: Researchers computation, Feb, 2025

a. Dependent Variables: employment sustainability of Business Administration Graduates

b. Predictors: (constant) Machine Learning, Expert system, Automation.

Table 3: This exhibits the joints probability of F-Statistic result $\{F(3/214) = 12.037\}$ $P < 0.5$ is less or equal 0.05% and shows the model is significant theme (ES) scale (dependent) and Artificial intelligence (AI) Expert system (ES) machine learning (ML) Automation (AI) variable at a 5% significant level as dependent by P value with associate f statistics the alternative hypothesis is accepted.

TABLE 4: Unstandardized Coefficient/Standardized Coefficients

MODEL	B	Std. Error	Beta	T	Sig
1	(Constant)	4.539		13.401	.000
	Automation	-.256	-.244	-3.831	.000
	Expert system	-.237	-.274	-4.264	.000
	Machine Learning	-.043	-.044	-.636	.525

Source: Research computation, Feb, 2025.

a. Dependent Variable: Employment Sustainability of BA Graduates ‘

Table 4 depicted the Joint interaction of proxies of study on Employment Sustainability ESGB which shows significant results of the concern variable which probability value of 0.000. Hence all Beta coefficient B_1 -.256, B_2 -.237 and B_3 =-.043 placement of other variable constant ESGB. Decrease by negative -.25 unit whom all decrease by one units which contribute + ESGB in

Ogun state. By -.24% when a decrease by -.237 units when ES reduce by one unit which contribute to ESGB in Ogun State by -.27% of this and -.043% units when ML decrease by one unit which contribute to ESGB in Ogun State by -.66%. Unit of activities.

Discussion of Results

The first objective of study is to assess the effect of Automation on Business Administration graduate employment Sustainability in Ogun State. The study show there negative significant influence of all on ESGB. This implies the graduation of business administration is affected hence, job reduction as a result of transformations occasioned by technological disruption that surfaced.

The second objective of study is to examine the effect of expert system on the graduate of business administration in transformation age in Ogun state. From the obtained results ES has significant results on Graduate of business administration, hence job reduction or unemployment as a result of new paradigm of transformations phenomenon occasioned through AI in the State.

The third objective of this study is to examine the effect of Machine Learning on the ESGB in from formation age in Ogun State. The study shows that there is a negative insignificant influence of machine learning on ESGB in Ogun state. This connotes that Machine Learning has no noticeable effect on employments situation of ESGB in Ogun state through the job reduction but not significantly noted as such from machine learning activities.

Conclusion

The study shows that theme are negative and significant effect of Automation on Employment Sustainability of Business Administration in Ogun State both at point interactor level and at individual coefficient level. Hence, it could be deduced that Automation in Artificail Intelligence activities formed part of Unsustained Employment among the graduate of Business Administration.

The study depicts that expert system has negative and statistically significant effect on ESGB in Ogun State in joint interaction and at individual coefficient level. This means that at any rate employment of Business Administration graduate is reduced on negatively affected through this result, hence enemployment will be notice.

The study demonstrate that the is a negative and insignificant statistical result of machine learning AI activities on ESGB in the Ogun State. This means that machine learning do affect employment sustainability of business administration graduate with noticeable effect, but there is reduction in their employment through system problem or other factor to be considered as compeition inflation problem etc. This could be that the behavioural aspect business administration graduate employment activities, robot cannot do it example where motivation, empathy etc. area needed.

Recommendations

It is hereby rocemmended that tertiary institution should organize awareness,re- orientation to prospective graduation Business Administration to equip themself with AI innovation transformation knowledge to be able to continue be in the competititive arena of organization, and environment needs.

It is hereby recommended that Expert system related activities of AI should be designed in the curriculum of Business Administration programme to enable them acquire needed knowledge outside in terms of operations and maintenance of Expert system architecture.

It is hereby recommended Business Administration employment is still going to be sustained through behavioural responses factor which machine as well robot cannot exhibits . Therefore, it is hereby recommended that graduate of business should continue to interact psychological positively with their clients especially those in customer cares related job especailly in the Mega, Mall Markets and Superstalls.

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