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Artificial Intelligence and Accountants' Approach to Accounting Functions

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Abstract: Prior to the advent of Artificial Intelligence (AI), accounting functions were predominantly processed manually. The emergence, however, introduced the use of intelligent machines to perform functions cleverly as humans, which minimises reasonably the processing time of accounting transactions when compared to manual processes. This study investigated the relationship between Artificial Intelligence (AI) and Accountants' Approach to Accounting Functions (AAAF). The study used the research design method through a structured questionnaire. The targeted population and the sample size was 205, which comprises accountants with experience in systems' application for accounting and other financial transactions' functions. A purposive sampling technique was adopted to determine the respondents. The results of the logit regression analysis revealed that with the t-calculated of 3.183 > t-tabulated of 0.002 at a 5% level of significance, artificial intelligence has a significant positive impact on accountants' approach to accounting functions. This implies that when AI is adopted, accountants will significantly change their approach to functional activities. The study recommended the need for accountants to be better equipped with diverse AI technologies and accounting software packages through training and retraining, to enhance their functional abilities, effectiveness and efficiency.

Keywords: Accounting functions, Accounting profession, Artificial intelligence, Artificial intelligence technologies, Technological advancement.

Introduction

Central to the advancement in the world of technology, is the awareness on Artificial Intelligence (AI). It is not only viewed on time management and transactional efficiency but having a combative approach to compete with traditional human intelligence. In the scholarly arena and the obscure research labs, AI is considered prepared for prime time as a disruptive transforming force in many economic sectors – not the least of which is the accounting and financial reporting functions of enterprises (Stagliano and Tanzola, 2020). Accordingly, AI is fast changing the operational modes of organisations and expected to increasingly take over the core functions of the accounting profession (Odoh et al., 2018). This has shifted the modus operands of the accounting profession from organising and processing data to analysis and translation (Giles, 2019). Similarly, AI and the development in computer science are birthing new ideas in a different dramatic class of machines that can perform tasks requiring reasoning, judgement, and perception hitherto restricted to human proficiency (Nilsson, 1984). Seemingly, the use of intelligent machines is making functionalised activities much easier (Stancheva-Todorova, 2018). Consequently, AI is extremely becoming a formidable challenge to the traditional way of the operation of accounting functions. This is evidently observed with the advancement of software programmes that attempt replicating experts' behaviour and expertise, store human knowledge and experience and transform it into rules to solve accounting problems; perform some accounting tasks; and bringing remarkable development and changes to the accounting industry (Stancheva-Todorova, 2018, citing Sutton et al., 2016; Luo et al., 2018).

Despite the global acceptability of the growing relevance of AI in changing the traditional accountant's approach to accounting functions, it has become a concern to the scholars, accounting professionals, and other stakeholders on how the accountants in the emerging economies, especially in Nigeria, will react to this development. It has been argued that with AI, some jobs are eliminated, and others are created, which may lead to the reduction in the arduous and painstaking nature of the accounting profession (Odoh et al., 2018; Greeman, 2017, cited by Odoh, et al., 2018). Studies have also opined that with the AI's technologies like expert systems, neural network, robots, fuzzy logic, and intelligent agents, among others, the accounting, auditing and the related professions will not only experience changes, but it will alter the operational functionality of human (Giles, 2019; Odoh et al., 2018; Luo et al. 2018; O'Leary and O'Keefe, 1997; Nilsson, 1984;). Similarly, Odoh et al. (2018) argued that the strategy of AI includes the progressive understanding of more complex human tasks to reveal how machines could perform these in mortal process or through physical strength. It is in line with this that this paper tries to examine the nexus between accountants' approach to accounting functions and AI.

Literature Review and Theoretical Framework

Conceptual Review

Artificial intelligence and its impact on the accounting profession

AI combines physiology, computer science, philosophy, mathematics, statistics, and linguistics with the intent of simulating human characteristics through computer systems (Taghizadeh et al., 2013). AI is believed to have been first proposed in 1956 by John MaCarthy (coined the word "artificial intelligence") and other computer experts at the University of Dartmouth seminar in America (Luo et al., 2018; Bruun & Duka, 2018; Singh et al., 2013). Giles (2019), however, argued that AI first appeared in a program called Logic Theorist, created by Herbert Simon, Allen Newell, and John Shaw, designed to mimic the problem-solving skills of a human - Logic Theorist. Similarly, Greeman (2017), opined that the concept of intellectual machines is traced to Greek mythology, which contains stories of Hephaestus, a blacksmith who contrived mechanical robots. Regarding the development of stored-program computers in the mid-20th century, the realistic concept of AI then began at the first conference in 1956 (Greeman, 2017).

Since its emergence, studies have also revealed changes in the transactional and functional activities of the global accounting profession. According to Issa et al. (2016), the evolution of technologies steered basic changes to processes to industries as a whole and now in the auditing domain. Comparably, the advent of accounting software, AI and robotics, have transformed the accounting systems and opening challenges for accountants to upgrade their technological proficiency (Odoh et al., 2018; Stancheva-Todorova, 2018; Meservy et al., 1992). Generally, the application of AI to accounting-related functions will enable effective and efficient performance of activities (Issa et al., 2016). Consequent to this assertion, it is believed that the application of AI will positively influence the performance of accounting functions and eliminate certain accounting cost (Odoh et al., 2018). Arguing divergently, Greenman (2017), opined that the advances of technology, specifically in AI, will take over human functions, leading to loss of jobs to more experienced and better prepared professionals.

Accordingly, technological advancement, especially AI, will lead to changes in the tools used and will be applied on a large scale to human life (Ping & Ying, 2018). Thus, accountants and other professionals must adapt to these changes to be relevant in the contemporary and future business world.

The dynamics of accounting functions and artificial intelligence-induced operational changes

Accounting is analytically based, and through functionality, it can be perceived from a set of rules on how transactions are recorded and the outcome reported (Mellemvik et al., 1988). The primary functions of accounting include recording, classifying, summarising, interpreting, communicating, and reporting. The dimensional functions of this profession commence from the elementary

understanding of double-entry principles. This is the very foundation on which accounting entries are eventually accomplished. In the past, these functions were documented manually with the extraction of accounts balances from the general ledger. Odoh et al. (2018), believed that the application of AI dates back decades. Consequent to this, all aspects of accounting is believed to be influenced by AI technology (Carol and O'Leary, 2013, cited by Odoh et al., 2018). Davenport (2016), cited by Odoh et al. (2018), argued that with the advent of AI, a critical accounting expert who checks and cross foot double entry transactions would likely cease to exist. It is argued, however, that AI would not bring an end to human intelligence and knowledge in auditing and other accounting functions (Davenport, 2016).

Stancheva-Todorova (2018) is also of the view that AI is greatly changing the roles of accounting profession in industries and the related functions. In the opinion of this scholar in Figure 1, AI will impact on accounting profession from the perspectives of "New skills", "New tasks and roles", "Education and training", and through "Task displacement". Accordingly, the shifts in accountants' roles is a response to their intensive work with data analytics, which complement business awareness, understanding and strong numeracy skills (Stancheva-Todorova, 2018). This is in agreement with the argument of Verma & Sharma (2019) that we are in an era of AI with the world encircled by the usage of smart machines for daily routines. According to these scholars, the increasing rate of advancement in automation and operations is creating a global impact on labour markets.

Regarding the functions of accounting like recording, classifying, and analysis, among others, AI is likely to alternate accountants outside transactions' input functions (Stancheva-Todorova, 2018). In the contemporary accounting department, intelligent machines only need to receive inputs from an accountant, and with proper coding, financial reports come out in real-time. Chukwuani and Egiyi (2020) also believed that the inclusion of AI in accounting functions has led to a complete transformation of the accounting system. Accordingly, the use of the traditional accounting system has greatly faded, leading to changes in the mode of accounting functions both positively and negatively (Chukwuani and Egiyi, 2020). The positives include the optimisation of the setting of accounting posts and practical working modes, and adversely, it could lead to the reduction in the workforce (Chukwuani and Egiyi, 2020). This implies that some accounting functions like recording, classification, tax preparations of staff emoluments, generation of trial balance through the manual general ledger, and computations and charging of depreciation on Property, Plant and Equipment (PPE) to financial reports can now be automated. (See **Figure 1:** Areas of AI impact on the accounting profession).

The impact of the technologies of AI on the business world, including accounting functions

Kumari et al. (2013), opined that when AI is programmed, it can sense changes in its environment and react like natural intelligence. Accordingly, AI, like humans,

can also cease working, and all that is needed is for a natural or man-made disaster to occur (Kumari et al., 2013). Arguing similarly, Stagliano and Tanzola (2020) opined that anything created by a human is susceptible to errors. Consequent to this, the total replacement of human by machines might not be a reality, for it takes only a natural disaster or human conspiratorial steps for the intelligence of machines to be disrupted (Stagliano and Tanzola, 2020).

The advancement in technology, therefore, has developed into machines that are being used for different operations in organisations. According to Taghizadeh et al. (2013) and Odoh et al. (2018), the major technologies include Expert Systems (ES), Neural Network (NN), Robots (RB), Fuzzy Logic (FL), Genetic Algorithm (GA), Natural Language Processing (NLP), and Intelligent Agents (IA).

Expert Systems (ES)

Taghizadeh et al. (2013) opined that ES are computer programs that simulate the manner of an expert in a diverse field. The scholars believed that they detect rationality forms, which may decide a specialist based on it and patterned in the way humans make decisions. In the view of Odoh et al. (2018), ES are AI programs adopted in the 1980s that attain a level of expertise, with the capability of replacing human speciality in decision making. Accordingly, knowledge engineering is the process of building an expert system, which must ensure that the design has all the knowledge needed to solve a problem; otherwise, the decisions might not be dependable (Taghizadeh et al., 2013).

Neural Network (NN)

These are electronic models of the structure of the human brain neural (Taghizadeh et al., 2013). In this tool, the devices of teachings and learning are primarily on experience, but the electronic models rely on the same pattern and models, which deals with different computational methods that are mostly adopted by computer systems (Taghizadeh et al., 2013; Odoh et al., 2018). Studies revealed that NN is an important aspect of AI, which is of interest due to its ability to perform the functions of the human brain (Kuma & Thakur, 2012; Taghizadeh et al., 2013; Odoh et al., 2018, citing Kuma & Thakur, 2012 and Taghizadeh et al., 2013). Taghizadeh et al. (2013), however, argued further that the process model as data storage and analysis of the model form the basis of modern computing and that the field from computational knowledge does not use any traditional programming methods.

Robots (RB)

Bruune and Duka (2018) stressed the assertion of Ford (2015) that AI and automation are technologies that will simultaneously move into jobs that have been in the domain of human labour while continuing to consolidate its dominance in routine jobs. The importance of a robot as a tool of AI became more noticeable in the middle of Covid-19 in the United Kingdom. The robots were utilised to deliver food items to people at their homes and assisted nurses at the Infection Prevention and Control in Mater Hospital, Ireland (IE Industry Europe, 2020). Starship Technologies, a delivery company of 2014

initiated this robotic idea (EI Europe, 2020). The robots are the size of beer coolers, travel on six wheels and have provided food to nearly 200,000 people without the need for human interaction (EI Europe, 2020). This presupposes that other functions of the accounts department through a transfer of relevant files among staff could also be handled by a robotic process. Odoh et al. (2018) further argued that robots are able to sense their environment, move around, and power themselves smartly through the utilisation of sensors.

Fuzzy Logic (FL)

This theory by Professor Lotfi Zadeh was to develop a more efficient models to describe natural language procession (Taghizadeh et al., 2013). The most important aspect of the application of FL is the provision of structure of intelligent beings' decision making, especially human intelligence (Taghizadeh et al., 2013). Due to its human reasoning and decision making, this tool of AI is, thus, seen as a solution to complex problems in all fields of life (Odoh et al., 2018).

Genetic Algorithm (GA)

These are algorithms with immense power to find answers to problems, and it gives the possibility of having rapid movement in problem space towards the target area (Taghizadeh et al., 2013). It is also believed that GA is a robust search method of AI that requires little information to search effectively in a large or poorly understood search space (Odoh et al., 2018). According to the scholars, it requires double elements – encoding of candidate structures and method of evaluating the relatives' performance of candidate structure for identifying the better solution.

Natural Language Processing (NLP)

Taghizadeh et al. (2013) opined that NLP imitates natural human languages that can be applied to understand and process recommendations and statements using conversation mostly utilised for daily activities. This branch of IA thus requires the understanding of the natural language to process and to communicate effectively (Odoh et al., 2018).

Intelligent Agents (IA)

Odoh et al. (2018) argued that this is one of the main solutions to the issues concerning information overload as a result of the development in a fully networked business environment. The scholars further opined that the IA software application travels across the internet and other known infrastructure at its own discretion, which could reach suppliers gateway and able to access suppliers' information in databases and other storage media.

Theoretical Framework

This study is anchored on the Classical Theory of Artificial Intelligence (CTAI). According to Muller (2012), the theory is centred on whether AI is possible at all. It generates questions like – "Can a machine think?"; "Can a machine perform an x"? It is a theory which states that it is difficult for AI to totally replace human intelligence. Zohuri and Rahmani (2020), however, argued that the developmental speed of innovative AI machines known as Super Artificial Intelligence (SAI) are in a serious race with the inventors known as Human. Thus, while this theory stands on the premix that humans will still provide the necessary transactions

for AI to operate, it is still a matter of argument that several operations of humans have not been totally taken over by AI in the recent years. Despite the advancement in AI, however, this theory is still relevant as to the limitations of what machines can perform, asserting that AI is fundamentally limited and should be replaced with other methods (Muller, 2012). While this study focusses on the link between AI and accountants' approach to operations, this theory creates more awareness as to the continued relevance of accountants on accounting activities but with dimensional changes in approach.

Empirical Review

Literature abounds on matters of artificial intelligence. The studies reviewed, examined the impacts of AI on different areas of life. Several of these studies, however, were based on contextual analysis. For instance, Kumari et al. (2013) examined intelligent computing relating to cloud computing. The study contends the real understanding of natural language and the fulfilment of cloud computing. The result revealed that implanting AI into codes that will run in the cloud will improve efficiency and also introduce intelligent computing language in the software for a machine to take decisions autonomously and in real-time.

Issa et al. (2016) conceptualised the need for AI in audit and workforce supplement. The study raised a number of research questions aiming at revealing Al-driven transformation of the contemporary world of audit. The study revealed that AI would potentially replace auditors in various automated tasks. Bruune and Duka (2018) examined the implication of artificial intelligence on jobs and future works. In the analysis, the study revealed that AI has already substituted human employment in the areas previously thought would not be possible for computerisation. Taghizadeh et al. (2013) addressed the abilities and challenges of artificial intelligence. The study revealed that dialogues simulation is one of the pivotal challenges of AI. Odoh et al. (2018) investigated how AI affect the performance of accounting operations. The study which was on South-East based accounting firms, utilised survey research design. Descriptive research was adopted among 185 accountants using a structured questionnaire. The results showed that AI would significantly affect the performance of the accounting function of firms in South-East Nigeria.

O'Leary (1991) surveyed on the use of AI and experts systems in accounting databases. The study revealed that objects and the likes are found to be useful devises to facilitate the organisation, storage, and application of intelligence for accounting database systems. Singh et al. (2013) presented an overview of AI and its capabilities. The study showed that extensive ongoing research gives an idea that in the near future, human beings and machines will merge into cyborgs or cybernetic organisms that are more capable and powerful than either, called transhumanism. Greenman (2017) explored the impact of AI on the accounting profession. The study revealed that there is in existence a software that has automated many accounting, tax, bookkeeping, and auditing processes. Meservy et al. (1992), examined the pieces of literature on the application of AI to accounting, tax, and

audit services. The study, which was done at Brigham Young University, found out that much of the development and application of AI in accounting, tax, and audit services has been in the form of expert systems. Ping and Ying (2018), investigated the effect of AI on employment. The study revealed that human beings had seen more of the substitution effect brought by AI to employment but neglected its creative effect. O'Leary and Keefe (1997) examined the effect of AI in accounting work through the use of expert systems on auditing and tax matters. The study adopted Perrow's sociological framework as a basis for a comparative organisation analysis. The study revealed an impact on factors that improve productivity. Nilsson (1984) examined the effect of AI on employment and income distribution. The study argued that AI would reduce the need for human toil drastically. Giles (2019) analysed how AI and machine learning will change the future of financial auditing. The study, which was on the University of Tennessee's accounting graduate curriculum, revealed that reliance on technology has come to stay. The study also showed that the accounting profession has shifted, causing accountants to quickly learn how to analyse data instead of organising and processing it. Despite these studies, there is still a huge gap in how changes could emanate in accounting functions as a result of AI, especially in an economic and commercial city like Lagos State, Nigeria.

Methodology

Primary data was used for this study through the administration of a structured questionnaire on selected accountants and computer experts. The targeted population, which was also the sample size was 205, and determined through the purposive sampling technique. The Study area is Lagos State, Nigeria. The targeted population was chosen to have in mind that Lagos is the commercial hub of Nigeria, and the accounts department of many organisations are computerised.

The accountants from the companies in Ikeja metropolis were the targeted respondents. Ikeja is deemed important for this study, being the capital city of Lagos State, housing many companies in the financial sector, airline, broadcasting stations, among others, with computerised accounting department and the popular computer village. Data were analysed through inferential statistics (logit regression analysis). The questions raised in the questionnaire were streamlined to get reliable and validly measurable data, with a 5-points Likert scale method.

This study's conceptual framework was purposed to establish the link between the dependent variable and the independent variable, as shown in Figure 2. Accountants' Approach to Accounting Functions (AAAF) is the dependent variable. The independent variable is Artificial Intelligence (AI) proxied by Expert Systems (ES), Neural Network (NN), Robotics (RB), Fuzzy Logic (FL), Genetic Algorithm (GA), Natural Language Processing (NLP), and Intelligent Agent (IA).

Model Specification

AAAF = Accountants' Approach to Accounting Functions = Dependent variable

AI = Artificial Intelligence = Independent variable

Meanwhile,

AAAF = f(ES, NN, RB, FZ, GA, NLP, IA) ……. (1)

$AAAF = \beta_0 + \beta_1 ES + \beta_2 NN + \beta_3 RB + \beta_4 FZ + \beta_5 GA + \beta_6 NLP + \beta_7 IA + \mu)$ ……. (2)

(See **Figure 2:** Conceptual Framework of changes to accounting function due to AI)

Data Presentation and Analysis

This research examined the relationship between AI and accountants' approach to accounting functions, using Lagos State, Nigeria, for the sampled area. The 5-Likert scale questionnaire enabled the respondents to select between strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1).

In Table 1, the responses of the respondents to the questions raised in the questionnaire showed a high mean of at least 4.2244 from a minimum mark of 2.00 and maximum mark of 5.00. in the 5-Likert scale method of questionnaire, the choices of the respondents, however, range from the least (strong disagree - 1), to the highest (strongly agree – 5). The data presented further implies that majority of the experts believed that the components of Artificial Intelligence (Experts systems, Neural Network, Robotics, Fuzzy Logic, Genetic Algorithm, Natural Language Processing, Intelligent Agent) will influence changes in accountants' approach to accounting functions. The collated data were analysed through multiple regression analysis with the results stated in Tables 2-4.

Discussion

Hypothesis Testing

H_o: There is no significant positive relationship between artificial intelligence and accountants' approach to accounting functions.

The regression analysis results in Table 2 shows R (0.292), R^2 (0.085), adjusted R^2 (0.053), and the standard error of estimate (0.59850). The value of R shows there is a relationship between the observed and the predicted values of the variables, but this is not too strong. This implies that artificial intelligence affects accountants' approach to accounting functions by 29.2%. The value of R shows that the proportion of variation in the dependent variable is explained by the model in Table 2. The value of R^2 indicates that 8.5% of the variation in the dependent variable could be explained by ES, NN, RB, FL, GA, NLP, and IA. The remaining 91.5% could be as a result of other variables not captured in this model. The adjusted R^2 value (5.3%), which is close to the R^2 value (8.5%) indicates that the model is good for generalisation.

The ANOVA in Table 3 tests the significance or otherwise, the fitness of the model. The F-calculated (2.626) is higher than the F-tabulated (0.013) at 5% significance level, hence, the null hypothesis is rejected. Table 4 also showed that the relationship between artificial intelligence and accountants' approach to accounting functions is statistically significant (P = .002 < .05) with t-statistics of 3.183. In consideration of these results, the study shows that Artificial Intelligence (AI) has a

significant positive influence on Accountants' Approach to Accounting Functions (AAAF). It also reveals that the t-calculated of 3.183 > t-tabulated of 0.002 at 5% level of significance. This shows that the null hypothesis should be rejected. This indicates that artificial intelligence will have a significant positive influence on accountants' approach to accounting functions. The result is in agreement with the position of Odoh et al. (2018).

This is also affirmed from the results of the respective level of significance of the components of AAAF, the independent variable. The individual level of significance for ES (0.072), NN (0.193), RB (0.869), FL (0.646), GA (0.263), NLP (0.073), and IA (0.152) are lower than 5% acceptable level of significance. This means that when artificial intelligence is applied to accounting functions, it will result in changes in accountants' approach to such activities. The output of the multiple regression shown in the coefficient (Table 3) revealed that: AAAF = 2.009 + 0. 114ES + 0.099NN + 0.009RB + 0.031FL + 0.75GA + 0.133NLP + 0.104IA.

Conclusion and Recommendations

Studies showed that the world of technology is competing with the functions hitherto known for human intelligent capability, and this is increasingly growing (Chukwuani and Egiyi, 2020; Bruun and Duka, 2018; Ping and Ying, 2018; Greenman, 2017; Taghizadeh et al., 2013;). Scholars have also postulated that intelligent machines are springing up with diverse results, which include the minimisation of functional time, loss of employment, creating employment in certain areas of technological advancement need, and changing methods of business activities (Chukwuani and Egiyi, 2020; Giles, 2019; Odoh et al., 2018; Greenman, 2017; Singh et al., 2013). It is on these submissions and the need to determine the nexus between the introduction of AI and accountants' approach to accounting functions that this study came to being. The results showed that artificial intelligence has a significant positive relationship with accountants' approach to accounting functions. This implies that the presence of AI will change the operational modes of accountants on accounting functions. This agrees with the studies of Chukwuani and Egiyi (2020), Odoh et al. (2018) and Greenman (2017). In view of the findings, the study recommended the need for accountants to develop and improve more on their artificial intelligence technologies' knowledge and skills to enhance their dynamism in functional accounting activities, and they should attend seminars and workshops on contemporary accounting methodical practices. The government should integrate artificial intelligence courses in accounting at the undergraduate and graduate level in the tertiary institutions so as to prepare future accountants for what is ahead in the business world. Organisations should be encouraged to invest more in automated accounting and effectively train their accounts staff for better efficiency in financial and other accounting functional reporting.

Limitations of the study

The findings of this study could have been different if the population is wide-ranging enough. For instance, the respondents were chosen from Ikeja metropolitans. The results could have been more enhanced if accountants of companies from the other

four administrative divisions of Lagos State (Badagry, Ikorodu, Lagos Island, and Epe) were included.

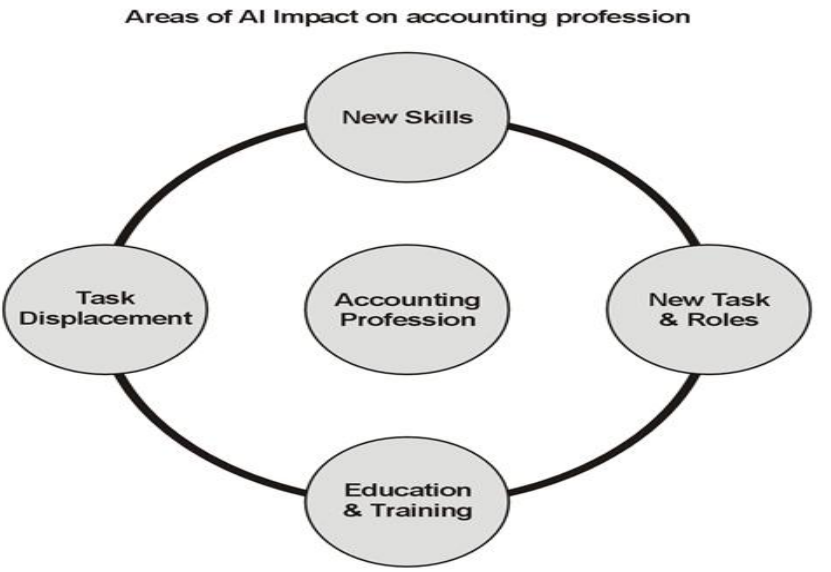

Figure 1: Areas of AI impact on the accounting profession
Source: Adapted from Stancheva-Todorova (2018)

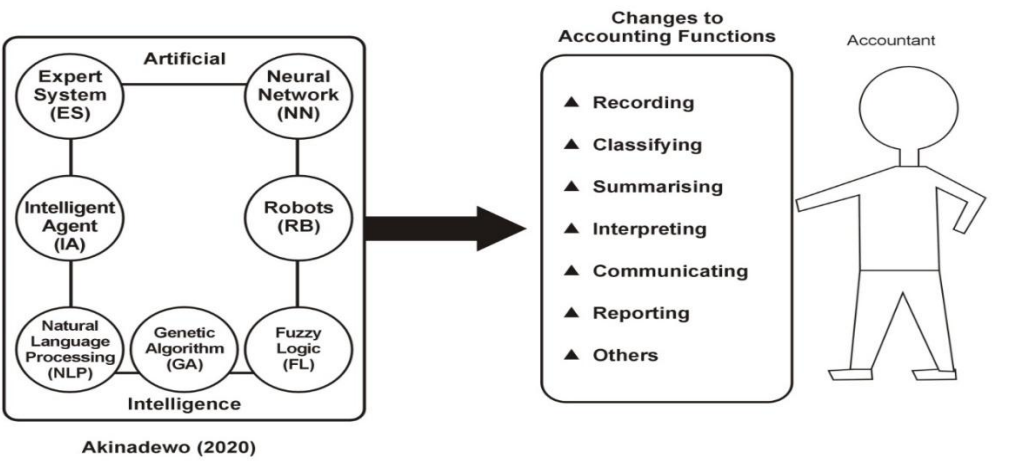

Figure 2: Conceptual Framework of changes to accounting function due to AI
Source: Author's Concept (2020)

Table 1: Descriptive Statistics

	N	Min.	Max.	Mean	Std. Dev.
Expert Systems (ES) are programs of artificial intelligence that when applied on accounting activities could change Accountants' Approach to Accounting Functions (AAAF).	205	1.00	5.00	4.4585	.74392
The adoption of Neutral Networks (NN), for accounting problems could change Accountants' Approach to Accounting Functions (AAAF).	205	1.00	5.00	4.2683	.62718
Application of Robots (RB) into accounting activities will change Accountants' Approach to Accounting Functions (AAAF).	205	1.00	5.00	4.3659	.75913
Fuzzy Logic (FL) is a reasoning method that if applied to accounting matters could change Accountants' Approach to Accounting Functions (AAAF).	205	2.00	5.00	4.3415	.66457
Genetic Algorithm (GA) is a technique of artificial intelligence that if applied to accounting functions could change Accountants' Approach to Accounting Functions (AAAF).	205	1.00	5.00	4.3561	.68958
Natural Language Processing (NLP) is a communicating intelligent system that when adopted for accounting purposes could change Accountants' Approach to Accounting Functions (AAAF).	205	2.00	5.00	4.3951	.61435
Intelligent Agents (IA) is a reasoning method that when adopted for accounting activities will change Accountants' Approach to Accounting Functions (AAAF).	205	2.00	5.00	4.3707	.61765
There will be a change in Accountants' Approach to Accounting Functions (AAAF) if Expert Systems (ES) are applied on accounting activities.	205	2.00	5.00	4.4098	.64770
There will be a change in Accountants' Approach to Accounting Functions (AAAF) if Neutral Networks (NN) are utilised to solve accounting problems.	205	2.00	5.00	4.2732	.66680
There will be a change in Accountants' Approach to Accounting Functions (AAAF) when Robots (RB) are applied on accounting activities.	205	2.00	5.00	4.4976	.63109
There will be a change in Accountants' Approach to Accounting Functions (AAAF) when Fuzzy Logic (FL) is applied to accounting matters.	205	1.00	5.00	4.4244	.71427

There will be a modification in Accountants' Approach to Accounting Functions (AAAF) when Genetic Algorithm (GA) is applied to accounting functions.	205	2.00	5.00	4.2244	.63276
There will be a change of Accountants' Approach to Accounting Functions (AAAF) if Natural Language Processing (NLP) is used in communicating on accounting matters.	205	2.00	5.00	4.3951	.62228
A change in Accountants' Approach to Accounting Functions (AAAF) will occur if Intelligent Agents (IA) are adopted for accounting activities.	205	3.00	5.00	4.4780	.61497
Valid N (listwise)	205				

Source: Author's Field Work (2020)

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.292[a]	.085	.053	.59850

a. Predictor (Constant): ES, NN, RB, FL, GA, NLP, IA

Source: Author's Field Work (2020)

Table 3: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.586	7	.941	2.626	.013[b]
	Residual	70.566	197	.358		
	Total	77.151	204			

a. Dependent Variable: Accountants' Approach to Accounting Functions

b. Predictors: (Constant), ES, NN, RB, FL, GA, NLP, IA

Source: Author's Field Work (2020)

Table 4: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.009	.631		3.183	.002
	ES	.144	.063	.138	1.806	.072
	NN	.099	.076	.101	1.306	.193
	RB	.009	.057	.012	.165	.869
	FL	.031	.067	.034	.461	.646
	GA	.075	.066	.084	1.123	.263
	NLP	.133	.074	.133	1.800	.073
	IA	.104	.072	.104	1.440	.152

a. Dependent Variable: Accountants' Approach to Accounting Functions

Source: Authors' Field Work (2020)

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