

Artificial Intelligence in Marketing: Whither Nigeria!

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Abstract

Marketing literature classify artificial intelligence and Internet of Things as disruptive technologies. These technologies considered as providers of digital solutions facilitate the attraction and maintenance of customers. Present day realities indicate that artificial intelligence enabled devices are prevalent in corporations. This paper sought to examine the influence of artificial intelligence on marketing practice in Nigeria. Specifically, objectives of this study is to examine the roles of artificial intelligence in marketing and to ascertain the level of Nigeria's preparedness for artificial intelligence intervention in marketing practice. The study adopted the desk research method that entail a review of extant literature. The study review extant literature on the roles of artificial intelligence, sphere of artificial intelligence influence, rationale of firms' deployment of artificial intelligence and the place of Nigeria in artificial intelligence global marketing space. The study found that artificial intelligence exhibits great relevance in nearly all facets of marketing practice. In the same vein, the study report that despite the nascent state of artificial intelligence deployment globally, its presence in Nigeria is at best non-existent. This paper advocates among others that marketing scholars continuously shed light on the place and potentials of artificial intelligence, firms with the intent to remain competitive need to embrace these emerging technologies while government should provide the enabling technological infrastructure that could facilitate firms adoption of artificial intelligence.

Keywords: *Artificial Intelligence, Marketing Practices, Nigeria firms*

INTRODUCTION

In the 1980s customers of theatre could recall watching Robocop, a late 1980s movie. The movie portray the adventure of machine in the affairs of men. Simply put, the movie Robocop, in its advanced form is a demonstration of artificial intelligence in pictures. Literature recognize artificial intelligence as the most recent among disruptive technologies. According to Anshari, Almunawar, Lim, and Al-Mudimigh (2018), technological disruptions are special technological devices that enable corporations acquire digital solutions that facilitate the attraction and maintenance of customers. Like other disruptive technologies, artificial intelligence has altered the conduct of business activities. Artificial intelligence can be regarded as the conferment of human intelligence on machine. This intelligence enables the machine to learn and discover. This capacity of artificial intelligence is enhanced as it learns from voice, image, recognition and semantic search. Artificial intelligence, machine learning and natural

language processing are quickly revolutionizing the field of marketing. Sequel to advancement in technology, data analytics now occupy the centre stage in modern marketing. Present day reality shows that globally artificial intelligence has profound effect on marketing practice. This effect varies from how consumers make purchase decisions to how firms navigate artificial intelligence policies with the intent of ensuring consumers' wellbeing. Consequently, firms' aspiration to remain competitive in the market has become a mirage. The truth is that the scope of artificial intelligence intervention in human activities range from how individuals albeit corporations buy and consume products.

According to Wirth (2018), artificial intelligence is an emerging technology that corporations commonly engage to track real-time data, analyse and promptly respond to customers' requirements. Artificial intelligence as an emerging technology, serve as a vehicle for competition as it enhances product and service offerings. Specifically, artificial intelligence holds enormous potentials in the transformation of marketing activities. As a result of these potentials, marketing managers have begun the search for the most profitable means to harness artificial intelligence marketing capabilities. Interestingly, scholars and marketing practitioners' unending interest in artificial intelligence invasion of marketing is premised on its present and future business roles. As a matter of fact, artificial intelligence help companies reach their potential marketing goals. Artificial intelligence invention in marketing facilitate the use of technologies to make automated decisions based on data collection, data analysis, and economic trends that may impact marketing efforts. It is the general belief of practitioners that artificial intelligence is helpful as it enables marketers better understand products sales cycle, correlate theories, and evaluate strategies. Similarly, artificial intelligence is reputed for assisting marketers in analytics, forecasting, and several optimization tasks. Artificial intelligence is often deployed in digital marketing where speed is of the essence. It is a today's reality that artificial intelligence is revolutionizing marketing environment. Consequently, the future eagerly awaits differing shapes of changes as a consequence of artificial intelligence intervention in marketing.

Sad enough, a review of Nigeria's extant marketing literature, reveals a paucity of study on artificial intelligence. Moreover, to the best of the researchers' knowledge there are very few organisations contemplating the involvement of artificial intelligence in marketing practice in Nigeria. This is the gap that this study fills. This study seeks to examine the place of artificial intelligence in Nigeria's marketing practice. To achieve this objective, this paper among others specifically examine the roles of artificial intelligence, sphere of artificial intelligence influence, rationale of firms deployment and the place of Nigeria in artificial intelligence global marketing space.

OVERVIEW OF ARTIFICIAL INTELLIGENCE

The concept artificial intelligence gain prominence in the 1950s when Alan Turing developed the famous Turing Test (Turing, 1950). In the test, the author contemplates the ability of a machine to think like humans. This capability to make machine function like human confer smartness on machines (McCarthy, Minsky, Rochester & Shannon, 1955). Simply put, artificial intelligence can be seen as the transfer of human intelligence to machines. Globally, firms' deployment of artificial intelligence contributes significantly to enhance service delivery. Wichert (2020) remarked that artificial intelligence assist in the rapid resolution of difficult situations. As a matter of fact, the growth and expansion of business operations result in prompt and accurate decision making. The truth is that such accurate decision making in the midst of large and complex data in most cases are far beyond human capacity. With the aid of

quantum computing enabled by artificial intelligence, such issues are resolved within a touch of the button.

Literature acknowledge that artificial intelligence is applicable in diverse fields of endeavour that include but not limited to medicine, manufacturing and marketing. Interestingly, marketing corporations now employ artificial intelligence to quickly process large amounts of data from social media, emails, and the World Wide Web. This practise in conjunction with marketing automation is poised to translate data into meaningful interactions which ultimately provide beneficial influence on company outcomes. Recent activities in most corporations show that the early embrace of artificial intelligence could be of immense benefits. Specifically, firms adoption of artificial intelligence practices often serve as a veritable tool that drive marketing initiatives with the intent of achieving high precision goals. Undoubtedly, artificial intelligence ultimately empowers marketing firms to combine advanced technology and human creativity so as to read, understand, and engage with consumers as individuals with hyper-personalized, relevant, and timely communications.

Operationally, artificial intelligence is seen as a sophisticated tool that facilitate prompt and accurate decision making. To achieve this objective, Data scientists and marketers often collaborate resulting in a rainbow of experts. This collaboration enables the firm present a brighter picture of an artificial intelligence driven world. For the team to achieve its purpose, demand that the team understand the data required and how that data will be acquired, managed and used. To the uninitiated, the primary activity of artificial intelligence is data milling. As a result, the professional marketer can easily be replaced. This is far from the truth. This paper opines that as a result of the synergy between the marketer and the data scientist, no partner is dispensable. The indispensability of each partner can be evidently seen in situations that portray bias in datasets. The identification of bias in datasets without prejudice is outside the Data Scientists capacity. This operational dilemma requires effective handling. To overcome this challenge, the firm need to leverage on the expertise of a marketer to ramp up all the grey areas.

Furthermore, the intervention of artificial intelligence in marketing is not a set-it-and-forget-it act. The truth is that changes can and do occur. These changes may happen in unexpected ways. Arising from these, artificial intelligence may become less impactful over time. This demand that marketing managers need to continuously understand and monitor the many assumptions and models that enable the deployment of artificial intelligence. For artificial intelligence to be impactful in marketing, it is important for marketing organisations to continuously monitor the changes associated with customers. In fact, products and market regulations can and do experience changes. The foregoing implies that supervision and adaptation should be continuous for a meaningful deployment of artificial intelligence in marketing.

ENABLERS OF ARTIFICIAL INTELLIGENCE IN MARKETING PRACTICE

Literature and indeed operational practice reveals several factors that precipitate the application of artificial intelligence principles in marketing. Some of the salient factors are examined as follows.

Digital Marketing: The term digital marketing refer to firms' reliance on digital platforms for the promotion of products. The common platforms suitable for the marketing of products literature identified include among others internet web pages, mobile devices, social networking sites, search engines, and other related platforms. According to Baron (2022), digital marketing became popular with the advent of internet into business space in 1990s. In reality, digital marketing share similar features with traditional marketing practices. However, digital marketing is seen as a new avenue for firms to interact with customers with the view of

obtaining a deeper perspective of customers' desires. As a matter of fact, marketing tactics and strategies canvassed by digital marketing are generally in tandem with the traditional marketing plans and campaigns. Nevertheless, the fact that marketing corporations relies on print and electronic media for sales promotion, the emergence of the internet now provide a veritable option for firms to communicate with potential and actual customers. In fact, new forms of value created in digital settings are predicated upon flexible digital technologies. Truth be told, firms that deploy digital technologies often develop core competencies that empower firms to collaborate in producing meaningful value for critical stakeholders. The flexibility of processes that digital technologies offers, assist business in value creation in the form of new customer experiences while facilitating interactions among customers.

Interestingly, Bughin (2015) note that it is the adaptive digital touch points that artificial intelligence offers that enhances the capacity of digital marketing. The author remark that as more offline customers migrate to digital technologies and the younger, technologically savvy customers are converted, traffic and interactions are expected to be on the increase annually.

Social Media Marketing: In a typical market setting, social media platforms are considered as places where individuals connect and share information, thoughts and opinions (Kaplan & Haenlein, 2010). On the other hand, Chen, Ibekwe-SanJuan and Hove (2013) assert that consequent upon the unique features of social media, notable transformation have occur in business practices. First, social media facilitates communication that were hitherto impossible between businesses and customers. In fact, ease in communication is made possible through social networking platforms, messaging sites and creative communities. This ease in communication among members result in social connection. According to Quinton and Wilson (2016), social connection result in social bonds. The degree and duration of these relationships to a large extent determines members' strength or weakness. Specifically, Verlegh, Ryu, Tuk, and Feick (2013) study found that the strength of the ties among members of a social community is a significant predictor of consumer recommendation behaviours

Secondly, social media has changed the way businesses and customers communicate and influence each other. Social contact encompass such activities that influence consumers' decisions and behaviours. As a matter of fact, this social interaction could be through dialogue or mere passive observation (Wang, Chen, & Xie, 2011). In the same vein, Muller and Peres (2019) contend that human connections rely heavily on social networks and consequently yield value to enterprises. Scholars are unanimous in acknowledging the roles of social impact in influencing consumer choices. In particular, Zubcsek, Katona and Sarvary (2011) demonstrated people's relationship patterns and the degree of social links portray the extent of their social relations. Thirdly, Bolton, Libai, Bugel, de-Ruyter, Gotz, Risselada and Stephen (2010) are of the opinion that the availability of social media data facilitates business managers' capacity to manage consumer connections more effectively. The components of social media data is often expressed in terms of volume, variation and velocity. Firms' reliance on modern technologies, irrespective of its form and source could facilitate the retrieval and utilization of massive crunch social media data. Ultimately, this data become invaluable for customer analysis, market research and in the development of novel ideas.

Content Marketing: In the year 2019, Hollebeek and Macky considered content marketing as the distribution of beneficial brand related information to potential and current users. The emphasis of content marketing when compared with traditional advertising practices is utility addition to market targets. This in most cases take the form of teaching and assisting customers on how to make well informed decisions (Vollero & palazzo, 2018). Contingent upon the tenets enunciated in the social exchange theory, it is expedient that content marketers

should be innovative. To achieve this intent, Smilansky (2018) remarked that content personalization and appreciation are only achievable through data milling. This implies that accumulated data can help to enhance content creation. Evidence has shown that the uniqueness of individuals as typified by tastes and interests is not in dispute. In fact, the deployment of personalized e-mails or social media adverts tailored to meet the preferences of each user is now a commonality. This suggest that it is now possible to achieve specific marketing objectives through the usage of artificial intelligence enabled intelligent content formulation (Ellis-Chadwick & Chaffey, 2019). The truth is that artificial intelligence-aided content generation is very powerful.

ARTIFICIAL INTELLIGENCE INTERVENTION IN MARKETING

Recent evidence shows that artificial intelligence now occupy a pivotal position in all marketing activities. Furthermore, literature attest to artificial intelligence relevance in the traditional marketing activities of place, price, product and promotion management (Verma, Sharma, Deb & Maitra, 2021). Artificial intelligence is also reported useful in customers' targeting and positioning, product design and ascertaining customers' needs, strategy formulation and planning and real time price variation and fluctuating demands.

Targeting and Positioning: Tanveer, Khan and Ahmad (2021) assert that artificial intelligence automates marketing operations. In short, artificial intelligence enabled computers are equipped to precisely recognize user behaviour and anticipate potential targets that can easily become consumers. This supposes that certain computer programs may be available that can give specific information on the leads that are most likely to become customers. This program is expected to assist marketing managers to put in concerted efforts on the most qualified leads rather than wasting time on the less qualified prospects.

In the same vein, the deployment of artificial intelligence also assist marketing firms in the assessment of relevant information with respect to customers and prospective customers' demographics, geography and purchase history among other factors (Tanveer et al., 2021). Other activities artificial intelligence can facilitate according to the scholars, encompasses monitoring and managing consumers' data. Similarly, Hermann (2021) remark that artificial intelligence enables the tailoring of relevant messages to clients. The truth of the matter is that artificial intelligence predictive ability equip firms with the requisite insight for a deeper understanding of customers' preferences. Leveraging on the rare insight that artificial intelligence provides, marketing managers are able to segregate customers into core groups by segmenting on the basis of highly targeted niches. The consequence of this practice is that firms no longer create a single generic advert campaign to reach all types of target customers and look forward to better conversion. As a result, firms are now compelled to create tailored made marketing content that target each core group based on their specific patterns and interests.

Strategy and Planning: Artificial intelligence is reputed for its ability to assist marketing managers in formulating strategies and implementing marketing plans. Evidence has shown that artificial intelligence in particular is helpful in market segmentation, targeting and product positioning. Furthermore, artificial intelligence, Huang and Rust (2017) assert can help marketers in envisioning strategic orientation. The truth is that text mining and machine learning algorithms can be useful in the identification of profitable customer segments (Dekimpe, 2020).

Product Management: Dekimpe in 2020 remarked that artificial intelligence-based marketing analytical tools can be engaged to ascertain the capacity of product design to create satisfied customers. This capacity of artificial intelligence for product design is hinged on the preference weight assigned to product attributes. These weights become useful during product search. The

preference weight, in fact, help marketers to understand product recommendations. To Dzyabura and Hauser (2019), this system of weight assignment enables managers to align marketing strategies for meaningful product management.

Pricing Management: In actual fact, product pricing entails factoring in multiple variables with the intent of arriving at an acceptable product price. The truth is that the activities involved in the determination of a product price is quite enormous. To overcome this bottleneck, real time price determination is now a common practice. In reality, price variation based on fluctuating customers demand further complicate the issues involved in product price determination. To the relief of marketing managers', artificial intelligence algorithm has come to the rescue such that product price can be dynamically adjusted (Misra, Schwartz & Abernethy, 2019). Furthermore, Dekimpe (2020) assert that the deployment of artificial intelligence enable firms attain best response pricing. This regime empowers the firm to meet customer choices, match competitor's strategies and supply network with the aim of optimizing dynamic pricing.

Place Management: Literature are unanimous in acknowledging the fact that product access as well as availability are essential components of marketing mix. For effective product distribution, relevant and adequate networks should be available. Operational practice also shows that all issues in relation with logistics, inventory management warehousing among others are sine quo non for meaningful place management. To modern organisations, the deployment of artificial intelligence has become the appropriate vehicle to manage all place related matters. It is heightening to note that distribution process standardization and mechanization confers convenience on customers as well as corporate suppliers. Wirtz, Patterson, Kunz, Gruber, Lu, Paluch and Martins (2018) opine that artificial intelligence offers customer engagement opportunities in service organisations.

Promotion Management: The operational activities of promotion encapsulates among others media planning, media scheduling, advertising campaign management and search engine optimization. The techniques firms' adopt in the management of its promotion activities assist in transforming its outlook from physical to phygital (Verma, Sharma, Deb & Maitra 2021). Of recent, digital marketing and social media campaigns have made giant strides in the global economy. This inroad has led to global digital transformation. The advent of artificial intelligence enables firms deploy personalized and customized messages to satisfy unique customer's aspirations.

RATIONALE FOR FIRMS ADOPTION OF ARTIFICIAL INTELLIGENCE

The following are some of the benefits that accrues to corporations that incorporate artificial intelligence into business operations. Indeed these benefits confer on the firms' competitive advantage.

Artificial intelligence enables better customer service. Firms deploy artificial intelligence to create and engage chatbots. These chatbots enable the corporation generate smart suggestions through emails, as well as develop human-like interactive voice response systems. Furthermore, chatbots enhances automatic ticket generation and routing complaints. It is pleasant to note that chatbots facilitate fast and cost effective resolution of customers' complaints.

Artificial intelligence helps with target marketing: In practical terms, artificial intelligence help in product promotion. Experience has shown that artificial intelligence is particularly useful in the development of promotional emails, advertisements and provision of product recommendations. The ability of artificial intelligence to achieve these is hinged on the capacity of artificial intelligence enabled tools to generate customer purchase history.

Artificial intelligence aid in the performance of human resource functions: Artificial intelligence has been recognized for its potential to facilitate the performance of human resource activities. Specifically, operating managers are reported to have engaged artificial intelligence in employees' selection and training. In fact, artificial intelligence is noted to aid in the effective hire of employees as well as enable firms develop customized training programs for employees:

Artificial intelligence streamline supply chain activities: Firms' leverage on the capacity of artificial intelligence among others in managing inventory, increasing safety for warehouse employees, planning travel route for deliveries and finding alternate delivery methods. The truth is that, firms' effective deployment of artificial intelligence help to shorten inventory delivery cycle.

Artificial intelligence enhances cyber security: Interestingly, majority of the latest antivirus software and malware that most firms rely on to provide cyber security are hinged on the tenets of artificial intelligence. These software are trained to identify phishing attacks and malicious links before organisations fall prey to cyber-attacks. Consequently, firms that deploy artificial intelligence in its superhighways are most likely to be protected from cyber-attacks.

Artificial intelligence technology aid detection of fraudulent transactions: The capacity to process vast amount of data within nanoseconds enhances artificial intelligence potential to detect and identify patterns in transactions. Operational evidence shows that many banking and financial institutions uses artificial intelligence and machine learning-based fraud detection software to identify unscrupulous customers and cybercriminals with stolen identities. The adoption of artificial intelligence in banks financial management is reported to minimize potential losses.

Artificial intelligence applications facilitate data usage: Majority of the data that artificial intelligence tools use are collected from social media and other sources. These collected data firms process in real-time to extract meaningful and actionable insights. The truth is that artificial intelligence tools are used for predictive analytics and data visualization.

Artificial intelligence makes workplace safer for employees: Artificial intelligence can be deployed to monitor work environment. Present day reality shows that firms now use drones, surveillance cameras, to ascertain that employees are not at risk. The foregoing suggests that operationally, firms engage artificial intelligence to collect data and process it to identify any sign of risk. This implies that firms deploy artificial intelligence to assist management create a safer work environment.

Artificial intelligence optimizes the use of resources: Artificial intelligence is reputed for its capacity to help employees and enterprises to become more productive and efficient. In reality, when recurring tasks are automated, the process saves time and conserve employees' energy. The consequence of process automation ensures timely execution of projects even at a minimal cost. Similarly, the organisation expend little resources in the execution of a task. The foregoing implies resource optimization results in improved productivity.

IMPLICATIONS OF ARTIFICIAL INTELLIGENCE IN MARKETING

Literature is replete with numerous benefits accruable to firms that deploy artificial intelligence in its operations. Some of these benefits are examined below.

Artificial intelligence helps in managing customer relationship. It is a common fact that today's customers' life journey is complex. In particular, present day customers are constantly exposed to myriad of noise during product purchase. Indeed with artificial intelligence, customers purchase experience can be personalized resulting in predictive marketing. The truth is that artificial intelligence enables firms predict and recognize data pattern with high degree of

certainty. With customers' data and firms' usage of analytics, corporations can personalize services. Firms that deploy artificial intelligence in business operations are able to identify the ideal customer this ultimately enhances firms' competitiveness.

Artificial intelligence provides optimized customer engagement process: Artificial intelligence optimizes customer engagement processes. This optimization outcomes result in enabling businesses. Specifically, artificial intelligence help in providing not only the right offer but also the right product and the right content to the right prospect at the right time. Artificial intelligence leverage and control complex activities as well as the computations involved in optimizing of permutations. Simply put, artificial intelligence serves as a basis for understanding user behaviour as well as enable users' timely access to all relevant information.

Artificial intelligence reduces the gap between sales and marketing: Literature acknowledge that marketing and sales share a common goal of business growth. This notwithstanding, the strategy of accomplishing these goals differs. Ironically, these differences are products of conflicts and wasted efforts. In actual fact, artificial intelligence fosters collaboration between marketing and sales through the identification of actual buyer. With the right buyer persona in place, marketing can easily produce customized collateral which attract and engage customers. The consequence is that the deployment of artificial intelligence will help corporations focus more on business innovations and decision making.

Artificial intelligence enhances exploration of new opportunities: Process optimization is one essential features of business operations. The truth is that process optimization drives customers' responsiveness which in turn culminates in increase market demand. In actual fact, artificial intelligence solutions assist in automating manual activities. Consequent upon the odious artificial intelligence tasks, firms' marketing activities now focus on other more important responsibilities. It is pertinent to remark that not all corporations that adopt data analytics experience business growth. It is pertinent to remark that firms' deployment of data analytics result in customer satisfaction that arises from data accuracy and personalized services.

Artificial intelligence enhances customer experiences: A cursory review of modern market trend reveals that majority of firms are becoming more customer-oriented where services are personalized. In the present day market customers' interaction has become crucial. The adoption of artificial intelligence coupled with its real-time modification makes integrating customer experience effective.

METHOD

This study adopt a desk study methodology. This method allows the researchers to review related literature that serves as the source of the research objectives. Several articles sourced from Scopus indexed journals and web of Science were reviewed. Furthermore, Nigerian contributions to artificial intelligence researches in conjunction with government publications were also examined. Majority of these publication were from year 2010 to date.

ARTIFICIAL INTELLIGENCE IN MARKETING WHITHER NIGERIA

A review of extant literature on artificial intelligence shows a scanty volume of study originating from Nigeria. This lack of interest in artificial intelligence study among Nigerian scholars could be as a result of the deficiency in higher education curricula. It is rather disheartening to note very few universities offer artificial intelligence related courses in Nigeria. According to National Universities Commission (2022), out of 170 universities in Nigeria, only 63 offers artificial intelligence related courses. Sad enough, the commission further report that University of Ibadan the foremost institution in artificial intelligence

training, research and publication is rated 58 in the continent of Africa and 2071 in the global ranking. It is apparent with this dismal rating in artificial intelligence education, in Nigeria, shortage of artificial intelligence experts would be inevitable.

To the best of the researchers' knowledge the extent of firms' adoption of artificial intelligence is low in Nigeria. The most probable reasons could be associated with firms' insufficient computing power. In actual fact, artificial intelligence is meant to scan vast amounts of data and perform a plethora of calculations. Machine learning and deep learning as artificial intelligence components require robust hardware and a lot of processing power to perform calculations quickly. Such strong IT infrastructure are very expensive to acquire to most organisations and as well hinder smaller organizations from adopting artificial intelligence that desire to take advantage of the benefits inherent in the deployment of the technology.

The second probable reason for the poor adoption of artificial intelligence technologies could be associated with firms' limited talents. To most corporations in the developed economy, artificial intelligence is no more a novelty among technology savvy managers. In spite of this, literature reports that a handful of corporations and indeed managers are aware of the potential and capacity of artificial intelligence. In actual fact there is a huge skills gap with respect to the use and consequent deployment of artificial intelligence in firms. Ironically, these vents of skill gaps are widening instead of getting contracted. Though interest in artificial intelligence has swelled slightly, data science courses focusing on artificial intelligence development have become prevalent. But still, more talented people are required to enable every business to enter the artificial intelligence bubble. The truth is that now is the perfect time for people aspiring to move into the technology domain. In actual fact, keeping a close watch on the current trends in the industry can help potential candidates updated. In the same vein, such constant watch can also help companies assess the market and find the required talent for their job roles.

The apparent lack of government support and funding for artificial intelligence paint a sorry state of artificial intelligence in Nigeria. Of recent, the Minister of Digital economy through the National Agency of Artificial Intelligence scheme announced a grant of 5000US Dollars each to 46 artificial intelligence start -up firms in Nigeria. This amount pale in comparison with other technologically driven nations. To the disbelief of scholars, the annual budget for artificial intelligence related activities for Africa/Middle East is 3 billion Dollars which translates into 2% of the global artificial intelligence budget of 131.4 billion Dollars. This apparent government neglect of artificial intelligence has it attendant consequences. It will be unexpected for Nigeria to favourably compete with other nations in the deployment and development of artificial intelligence in the nearest future.

Another bottleneck confronting firms' embrace of artificial intelligence is the absence of government regulations on artificial intelligence practice in the country. Traditionally, government as a stakeholder in business is responsible for the enactment of regulatory frameworks. Government apparent neglect of their statutory responsibilities most probably could be responsible for the low adoption of artificial intelligence in marketing practice in Nigeria. In sum, despite the fact that the rate of artificial intelligence adoption is globally low, it is more worrisome to observe that the deployment and the intent of artificial intelligence engagement in Nigeria is non-existent.

Finally, artificial intelligence deployment in the corporations is largely hinged on trust. Artificial intelligence is still a novel technology to many people. This implies that the process of fostering trust for artificial intelligence experts is not an easy task. The truth is that

people are always reluctant to trust when denied the opportunity to explain how artificial intelligence models aid decision making. As a matter of fact, the complexity associated with comprehending how deep learning models aid decision making is just another obstacle in fostering trust. Arising from these, businesses exercise caution when employing artificial intelligence -driven software as such applications may be too complex to consumers.

INHIBITORS OF ARTIFICIAL INTELLIGENCE ADVANCEMENT IN NIGERIA

Extant literature is replete with several bottlenecks that limit the development and deployment of artificial intelligence in Nigeria. The foregoing among other factors are examined as follows.

Infrastructure and Access to Technology: One of the foremost challenges that inhibits widespread adoption of artificial intelligence in Nigeria is the country's inadequate technology infrastructure and limited access to the internet. It is disheartening to remark that it is only urban centres in Nigeria that relative access to internet technology unlike the rural areas that are bedevilled by unreliable electricity and poor internet connectivity.

Education and Skill Gap: The success of artificial intelligence initiatives depends on a skilled workforce capable of developing, implementing, and maintaining artificial intelligence systems. Nigeria faces a substantial skill gap in this regard. The country's education system must be revamped to include artificial intelligence -related courses and training programs that produce a new generation of artificial intelligence experts.

Data Quality and Privacy: Artificial intelligence relies heavily on data, and Nigeria faces challenges related to data quality and privacy. Many organizations lack structured, clean, and accessible data sets necessary for artificial intelligence projects. The truth is that, data privacy regulations are still evolving, raising concerns about the misuse of personal information and the potential for data breaches.

Funding and Investment: Artificial intelligence research and development require substantial financial investments, which can be a hurdle in a country with limited access to capital. Nigerian start-ups. As a matter of fact, Nigeria firms often struggle to secure funding for artificial intelligence projects thereby inhibiting investment in artificial intelligence business domain..

CONCLUSION AND RECOMMENDATIONS

Literature recognizes Artificial Intelligence (AI) and Internet of Things (IoT) as typical examples of disruptive technologies. Disruptive technologies are special technological devices that enable corporations acquire digital solutions that facilitate the attraction and maintenance of customers. Artificial intelligence simply refers to the conferment of human intelligence on machine. This intelligence enables machine to learn and discover. The venture of artificial intelligence into marketing has dramatically altered firms marketing activities. Artificial intelligence in marketing gained relevance as a result of its present and future potentials in business. With artificial intelligence, firms now leverage on the huge available data to gain insight into customers' desire. As a matter of fact, marketing firms' embrace of artificial intelligence is not just considered as a weapon for competition instead it also serves as a road map of consumers' journey. Arising from the wide scope of artificial intelligence applications, an adventure into seeking an understanding of artificial intelligence relevance in marketing has become timely.

This study examines the roles of artificial intelligence, sphere of artificial intelligence influence, rationale of firms' involvement and the place of Nigeria in artificial intelligence

global marketing space. The study found among other things that the global deployment of artificial intelligence in marketing is still at its nascent stage. This notwithstanding, a global search of literature on artificial intelligence studies shows a dismal performance of Nigeria in this regard. It was worrisome to notice that Kenya made more considerable imprint than Nigeria in artificial intelligence studies. It was also sad to notice the non-existence of Nigeria corporations investing in artificial intelligence studies and adoption. Finally, the usual nonchalance of Nigeria government was observed as there are no visible regulations on firms' adoption of artificial intelligence. These hiccups notwithstanding, this paper recognises that artificial intelligence like every technological products passes through a product diffusion process with each stage inherent benefits. It is therefore pertinent for corporations to take advantage of these benefits associated with the adopters and early majorities before competition becomes stiff. .

Contingent upon the findings of this study, the researchers proffer the following recommendations,

(1)Marketing scholars in Nigeria should devote sufficient attention to artificial intelligence related studies. This can be done through organised conferences and symposia that beam its light on the potential and relevance of artificial intelligence in marketing practice.

(2)Firms should be ready and willing to invest in artificial intelligence. As a matter of fact, investment in artificial intelligence requires a long term commitment. This demand that firm need to periodically invest in artificial intelligence driven technologies in order to remain competitive.

(3)Firms should fully adopt artificial intelligence in its basic operations. It is pertinent to remark that the extent of artificial intelligence adoption is largely dependent upon the nature and volume of firms' business.

(4) Operational managers should constantly monitor employees' reaction to the adoption of artificial intelligence. Managers of firms should be able to ascertain the permissibility of the work culture to artificial intelligence adoption. Concerted efforts should be made to ease the difficulty management faces to initiate technological changes. Rather than allow managers to be encumbered by these obstacles, businesses can rely on artificial intelligence consulting firms to help introduce as well as install artificial intelligence devices into the enterprise at various levels

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