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Introduction To Artificial Intelligence: Applications And Benefits To Human Life

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Abstract: ***Artificial intelligence (AI), also known as machine intelligence (MI) is an intelligence exhibited by machines, rather than humans or other animals. In computer science, the field of AI research defines itself as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance of success at some goal. Colloquially, the term "artificial intelligence" is applied when a machine mimics "cognitive" functions that humans associate with other human minds, such as "learning" and "problem solving". Artificial intelligence has been used in a wide range of fields, including medical diagnosis, remote sensing, computer sciences, scientific discovery and robot controls. A fascinating feature of AI is its ability to learn and take decisions on its own without any human instruction or control. It has algorithms that enables it to learn with the aid of natural language processing. Today artificial intelligence has become an essential part of the technology industry, providing the heavy lifting for many of the most challenging problems in computer science. However, many Artificial intelligence applications are not perceived as artificial intelligence with many thousands of its applications deeply embedded in the infrastructure of every industry. This study was intended to examine the historical development of artificial intelligence. This study was guided by the following objectives: To find out the application and benefits of artificial intelligence to mankind, to ascertain the prospects of artificial intelligence. The study employed the survey research method in which questionnaires were distributed to various respondents in addition to library research applied in order to collect data. Primary and secondary data sources were used and data was analyzed using the chi-square test statistical tool at 5% level of significance which was presented in frequency tables and percentage. The respondents under the study were 400 respondents from the entire population of Kano State residents. The study findings revealed that artificial intelligence benefits the human race and has made life easier for man. It has more merits than demerits. Artificial intelligence has helped to increase Nigeria's productivity and output. Lack of adequate artificial intelligence may adversely affect the nation's economy.***

The outcome of this research work will therefore be of great help to stakeholders in various sectors for example health, finance, education, security, engineering, manufacturing, research and technology in understanding the application and benefits of Artificial intelligence to enhance productivity and effectiveness of the sectors. Last but not the least for better understanding of Artificial Intelligence watch, "Enthiran: The Robot", an Indian movie by S. Shankar or attend the biggest tech conference in Nigeria at Techpoint Inspired On May 29, 2018, which will be hosting 5000+ people for clarifications.

Keywords: Behaviour, Artificial, Computer, Intelligence, Agent, Innovation, Applications and Benefits.

I. INTRODUCTION

A. BACKGROUND TO THE STUDY

According to (Wikipedia, 2015), artificial intelligence (AI) is the intelligence exhibited by machines or software. It is also the name of the academic field of study in computer science which studies how to create computers and computer software that are capable of intelligent behavior. Major artificial intelligence researchers and other sources define this field as the study and design of intelligent agents, in which an intelligent agent is a system that perceives its environment and takes actions that maximize its chances of success. John

McCarthy, who coined the term as far back as 1955, defines it as the science and engineering of making intelligent machines.

Artificial intelligence is a branch of Computer Science concerned with the study and creation of computer systems. Artificial intelligence exhibits some form of intelligence by way of introducing systems that learn new concepts and tasks and also have the ability to reason and draw useful conclusions about the world. Artificial intelligence systems also can understand a natural language or perceive and comprehend a visual scene, and perform other types of feats that require human types of intelligence (Freitas, 1999).

Artificial intelligence research is highly technical and specialized, and is deeply divided into subfields that often fail to communicate with each other. Some of the division is due to social and cultural factors: subfields have grown up around particular institutions and the work of individual researchers (Drexler, 1986). Artificial intelligence research is also divided by several technical issues. Some subfields focus on the solution of specific problems. Others focus on one of several possible approaches or on the use of a particular tool or towards the accomplishment of particular applications. The central problems (or goals) of artificial intelligence research include reasoning, knowledge, planning, learning, natural language processing (communication), perception and the ability to move and manipulate objects. General intelligence is still among the field's long-term goals (Bostrom, 2002). Currently popular approaches include statistical methods, computational intelligence and traditional symbolic artificial intelligence. There are a large number of tools used in artificial intelligence, including versions of search and mathematical optimization, logic, methods based on probability and economics, and many others. The artificial intelligence field is interdisciplinary, in which a number of sciences and professions converge, including computer science, mathematics, psychology, linguistics, philosophy and neuroscience, as well as other specialized fields such as artificial psychology (Hanson, 1998).

According to (Moravec, 1999)the field was founded on the claim that a central property of humans, intelligence can be so precisely described that a machine can be made to simulate it. This raises philosophical issues about the nature of the mind and the ethics of creating artificial beings endowed with human-like intelligence, issues which have been addressed by myth, fiction and philosophy since antiquity (Kurzweil, 1999). Artificial intelligence has been the subject of tremendous optimism but has also suffered stunning setbacks. Today it has become an essential part of the technology industry, providing the heavy lifting for many of the most challenging problems in computer science (Yudkowsky, 2003).

Artificial intelligence also deals with study of ideas to bring into being machines that respond to stimulation consistent with traditional responses from humans, given the human capacity for contemplation, judgment and intention (Vinge, 1993). Each such machine should engage in critical appraisal and selection of differing opinions within itself. Produced by human skill and labor, these machines should conduct themselves in agreement with life, spirit and sensitivity, though in reality, they are imitations. Other researcher has seen artificial intelligence as systems that combine sophisticated hardware and software with elaborate databases and knowledge-based processing models to demonstrate characteristics of effective human decision making. However, the researcher will provide an indebt study into the introduction to artificial intelligence and its application and benefit to human being.

B. STATEMENT OF PROBLEM

It is a known fact that the field of artificial intelligence is relatively young (Yudkowsky, 2003). The creation of Artificial Intelligence as an academic discipline can be traced to the 1950s, when scientists and researchers began to consider the possibility of machines processing intellectual capabilities similar to those of human beings. Alan Turing, a British mathematician, first proposed a test to determine whether or not a machine is intelligent. The test later became known as the Turing Test, in which a machine tries to disguise itself as a human being in an imitation game by giving human-like responses to a series of questions. Turing believed that if a machine could make a human being believe that he or she is communicating with another human being, then the machine can be considered (Bostrom, 2002). However, artificial intelligence has been used in a wide range of fields including medical diagnosis, stock trading, robot control, law, remote sensing, scientific discovery and toys. However, many Artificial intelligence applications are not perceived as artificial intelligence (Bostrom, 2002). A lot of cutting edge artificial intelligence has filtered into general applications, often without being called artificial intelligence because once something becomes useful enough and common enough it's not labeled artificial intelligence anymore," Nick Bostrom reports. "Many thousands of artificial intelligence applications are deeply embedded in the infrastructure of every industry. In the late 90s and early 21st century, Artificial intelligence technology became widely used as elements of larger systems, but the field is rarely credited for these successes. For example; finance, hospitals and medicines, heavy industries, online and telephone customer service, transportation, telecommunication, toys and games, music, aviation, news, publishing & writing. However, this study seeks to provide an overview of artificial intelligence, its application and use to human being in general (Bostrom, 2002).

C. OBJECTIVES OF THE STUDY

- ✓ To examine the historical development of artificial intelligence.
- ✓ To find out the application and benefits of artificial intelligence to mankind.
- ✓ To ascertain the prospects of artificial intelligence.

D. RESEARCH QUESTIONS

- ✓ How was artificial intelligence developed historically?
- ✓ What are the application and benefits of artificial intelligence to mankind?
- ✓ What are the prospects of artificial intelligence?

E. HYPOTHESIS

H0: Artificial intelligence does not benefit human life in any way

H1: Artificial intelligence does not benefit human life in any way

F. SIGNIFICANCE OF STUDY

This research will be of significance in the following area:

- ✓ It will be of help to stakeholders in various sectors for example health, finance, education, security, engineering, manufacturing, research and technology in understanding the application and benefits of Artificial intelligence to enhance productivity and effectiveness of the sectors.
- ✓ The findings of this research work will also serve as reference for academic endeavor to lecturers and students and also help the public who would want to know about some advantages and disadvantages (if any) of the use of the artificial intelligence.
- ✓ Findings and recommendations from this study will guide the stakeholders in various sector determine the type artificial intelligence to be adopted and also help them identify specific areas where artificial intelligence can be applied.

G. SCOPE OF STUDY

This study on application and benefits of artificial intelligence will cover the overview of the historical development of artificial intelligence as a branch of computer science that deals with creating computers and computer software that are capable of intelligent behavior. However, this study will examine the application and benefits of the Artificial intelligence to human life and this research will also consider the future and prospects of artificial intelligence

H. DEFINITION OF TERMS

In this research work, the terms defined reflect how the researcher wants them to be understood in the context of this work

Behaviour: the way in which one acts or conducts oneself, especially towards others

Artificial: made or produced by human beings rather than occurring naturally, especially as a copy of something natural.

Computer: an electronic device which is capable of receiving information (data) in a particular form and of performing a sequence of operations in accordance with a predetermined but variable set of procedural instructions (program) to produce a result in the form of information or signals.

Intelligence: the ability to acquire and apply knowledge and skills.

Innovation: The process of translating an idea or invention into a good or service that creates value

Agent: anything that can perceive its environment through sensors, and act upon the environment using its actuators.

II. LITERATURE REVIEW

A. INTRODUCTION

This chapter gives an insight into various studies conducted by outstanding researchers, as well as explained terminologies with regards to the importance of artificial intelligence, its applications and benefits to human life. The chapter also gives a resume of the history and present status of the problem delineated by a concise review of previous studies into closely related problems.

B. THEORETICAL FRAMEWORK

The theoretical foundations of e-commerce are arguably anchored on the Kurzweil, R. (1999) *model* for artificial intelligence, which suggests that a number of qualities must be met before it can be judged to be beneficial to man. Artificial intelligence has been on the radar of technology leaders for decades, and while we don't yet have autonomous machines helping us make complex decisions or tasks, most organizations have reaped some benefit from Artificial intelligence which to a good extent has been beneficial to mankind; Moravec, H. (1999): *Robot: Mere Machine to Transcendent Mind- posits that artificial intelligence can be used in diverse fields in the world today. The applications of artificial intelligence to human life was further buttressed by* Kurzweil, R. (1999): *The Age of Spiritual Machines: When Computers Exceed Human Intelligence. Artificial intelligence includes all those machines that perform diverse tasks to make man's world relatively easier. Artificial intelligence has come a long way seeing that more sophisticated "intelligent machines" are being produced on a daily basis (*Brookshear, J. G, 2010).

Kurzweil, R. (1999) opined that were it not for the advent of artificial intelligence, life would have been harder and less interesting.

C. APPLICATIONS AND BENEFITS OF ARTIFICIAL INTELLIGENCE TO HUMAN LIFE

Artificial intelligence has been used in a wide range of fields, including medical diagnosis, remote sensing, computer sciences, scientific discovery and robot controls. Surprisingly, many artificial intelligent applications are not seen as artificial intelligence. A lot of artificial intelligence products have filtered into general applications without been noticed. Brookshear, 2010 reports "that thousands of artificial applications are deeply embedded in the fabric of every industry." In the 21st century, artificial intelligence technology became widely used in diverse fields without being given adequate credit for this feat.

Below are the benefits of artificial intelligence to mankind

- ✓ *MEDICINE*

Artificial intelligence has been contributed immensely to the developed of medicine in the world. People are now being treated with less pains and side effects, thanks to artificial intelligence products like machines.

✓ *SECURITY*

Artificial intelligence has greatly improved our security system in Nigeria. Artificial intelligence has greatly helped in improving the security of lives and properties with little or negligible effort. More weapons are now being manufactured with the help of artificial intelligence and this has helped in maintaining relative peace in the world.

RESEARCH AND TECHNOLOGY

Research and technology has greatly improved thanks to artificial intelligence. The importance of artificial intelligence in research and technology cannot be over emphasized, with the help of artificial intelligence, more researches are being carried out and little e or no time is spent.

ENGINEERING

The world of engineering owes a whole lot to artificial intelligence. Latest engineering exhibitions wouldn't have been possible in the world today without artificial intelligence. Artificial intelligence has transformed the engineering sector immensely.

Generally to be able to increase innovations, productivity and output, artificial intelligence has to be employed in achieving this feat. Every economy that wants to expand must not do without artificial intelligence.

- ✓ *Act as aids* – they can act as 24/7 aids to children with disabilities or the elderly, they could even act as a source for learning and teaching. They could even be part of security alerting you to possible fires that you are in threat of, or fending off crime.
- ✓ *Jobs* – depending on the level and type of intelligence these machines receive in the future, it will obviously have an effect on the type of work they can do, and how well they can do it (they can become more efficient). As the level of AI increases so will their competency to deal with difficult, complex even dangerous tasks that are currently done by humans, a form of applied artificial intelligence.
- ✓ *Their function is almost limitless* – as the machines will be able to do everything (but just better) essentially their use, pretty much doesn't have any boundaries. They will make fewer mistakes, they are emotionless, they are more efficient, and they are basically giving us more free time to do as we please.

D. DISADVANTAGES OF ARTIFICIAL INTELLIGENCE

The growth of the effectiveness and ubiquity of Artificial Intelligence methods has also stimulated thinking about the potential risks associated with advances of Artificial Intelligence. Some comments raise the possibility of dystopian futures where Artificial Intelligence systems become "super intelligent" and threaten the survival of humanity. It's natural that new technologies may trigger exciting new capabilities and applications—and also generates new anxieties. In as much as artificial intelligence has improved humanity immensely, there are certain school of thoughts that opined that though it has a lot of advantages, if not properly harnessed can lead to more harm than good.

The main problem with Artificial Intelligence is an ethical and philosophical one. There is a general believe that intelligence was God's gift to humans to differentiate them from other creatures (McCarthy & Hayes, 1969). By creating an artificial intelligence, we are playing the role of God, which is the same argument as cloning.

Machines being emotionless were presented as being a good thing; however it can also be a bad thing. Social intelligence is the big question. Machines can't provide with the emotional understanding that humans can offer and it could act irrationally as a consequence (McCarthy & Hayes, 1969). The machines ability to perform all jobs that human can do means a loss of jobs on a huge scale leading to jobless people and financial hardship (Links999, 2005). People will feel a sense of uselessness which can have may mental problems. A machine that can make decisions thinks the same way as a human. This being said, it can make good or bad decisions. It might take over the world similar to what we see in movies, which is considered as impossible but we never know (Links999, 2005).

Vinge, V. (1993). In his book "The Coming Technological Singularity Opined that Apart from the risk of breakdown, there is also the imminent risk of loss of data. In some cases, due to malfunction of certain parts, a machine can fail to keep prompt memory of files that it should ordinarily have.

As they are machines they obviously can't provide you with that 'human touch and quality', the feeling of a togetherness and emotional understanding, that machines will lack the ability to sympathize and empathize with your situations, and may act irrationally as a consequence.

III. RESEARCH METHODOLOGY

A. INTRODUCTION

This chapter covers the description and discussion on the various techniques and procedures used in the study to collect and analyze the data as it is deemed appropriate.

It is organized under the following sub-headings:

- ✓ Research Design
- ✓ Area of the Study
- ✓ Population of the study
- ✓ Sample and sampling procedure
- ✓ Instrument of Data Collection
- ✓ Validation of the Instrument
- ✓ Reliability of the Instrument
- ✓ Method of Data Collection
- ✓ Method of Data Analysis

B. RESEARCH DESIGN

According to Asika (2009), research designs are often referred to as the structuring of investigation aimed at identifying variables and their relationships to one another.

The research method used for this study was the survey method. This method was considered most appropriate because it is a method involving the search for opinions.

C. AREA OF THE STUDY

The study will be conducted in Kano State, Nigeria. Created on May 27, 1967 from part of the Northern Region, Kano is the second most populous city in Nigeria which borders Katsina State to the North-west, Jigawa State to the north-east, Bauchi State to the south-east and Kaduna State to the south-west. The population of Kano urban area, according to the Kano State Government is 16 million, a number disputed by the Nigerian Government and judged reliable by the National Population Commission of Nigeria. Kano State is the second largest industrial center after Lagos State in Nigeria and the largest in Northern Nigeria with textile, tanning, footwear, cosmetics, plastics, enamelware, pharmaceuticals, ceramics, furniture and other industries.

D. POPULATION OF THE STUDY

The population of study consists of male and female residents of Kano State on whether artificial intelligence does or does not benefit human life in anyway.

E. RESEARCH SAMPLING TECHNIQUE AND SAMPLESIZE

In order to get the sample size for the study, the Taro Yamane formular was used because it is finite population Scenario. According to our research Kano has a population of sixteen million (16,000,000) residents. Taro Yamane is presented as follows:

$$n = \frac{N}{1 + N * e^2}$$

Where:
n= sample size
N= population size
e=Degree of error expected
1=unit [a constant figure]

Using the appropriate formular above to get a benefitting sample size to ensure that the population of the study is adequately presented. Based on this established data, [n] was computed thus:

$$n = \frac{N}{1 + N * e^2}$$

$$n = \frac{16000000}{1 + 16000000 * 0.05^2}$$

$$n = \frac{16000000}{1 + 16000000 * 0.0025}$$

$$n = \frac{16000000}{1 + 40000}$$

$$n = \frac{16000000}{40001}$$

$$n = 399.99 \approx 400$$

Therefore, the sample size to be used in the questionnaire is 400.

F. INSTRUMENT FOR DATA COLLECTION

These are the tools or methods used in getting data from respondents. Questionnaire is the main research instrument used for the study to gather necessary data from the sample respondents. The questionnaire is structured type and provides answers to the research questions and hypotheses therein.

This instrument is divided and limited into two sections; Section A and B. Section A deals with the personal data of the respondents while Section B contains research statement postulated in line with the research question and hypothesis in chapter one. Options or alternatives are provided for each respondent to pick or tick one of the options.

G. RELIABILITY AND VALIDITY OF INSTRUMENT

Reliability means the accuracy of precision of a measuring instrument while validity means the extent to which the research instrument measures what it is supposed to measure. In order to determine the reliability and validity of the study, the test-retest method was used. To have a valid instrument, the questions in the questionnaire will be free from ambiguity (i.e. the questions will not be too complex). To have reliable instrument, the questionnaire will be followed with interview of sample of respondents to know their view on the subject.

H. METHOD OF DATA COLLECTION

A total number of 400 questionnaires will be administered to the randomly selected respondents. The researcher shall use the direct contact approach i.e. meeting the respondents in their offices, houses etc. This will help to minimize the percentage of distraction, unnecessary delays, and it will finally help to ensure an error free study.

I. METHOD OF DATA ANALYSIS

Having gathered the data through the administration of questionnaire, the data collected will be coded, tabulated, and analyzed according to the research question and hypothesis.

The major techniques that will be used in data analysis shall be the chi- square (x^2) statistical analysis, which is aimed at establishing any significant difference that might exist among respondent's frequencies. Chi-square is a non-parametric statistical tool which can conveniently be used in testing hypotheses when dealing with contented data. Chi-square formular is presented as follows:

$$X^2 = \sum \frac{(O - e)^2}{e}$$

Where X^2= chi-square
$\sum$ = Summation
O= Observed frequency &
e= expected frequency

J. SCORING OF THE RESEARCH INSTRUMENT

Since the research instrument used was the questionnaire, it was designed using the likert scale method. The questionnaire was designed in the following ways:

- ✓ Strongly Agreed (SA) - 5
- ✓ Agreed (A) - 4
- ✓ Undecided (U) - 3
- ✓ Disagreed (D) - 2
- ✓ Strongly Disagreed (SD) - 1

K. DECISION RULE

Reject the null hypothesis if the p value is less than the level of significance, accept the null hypothesis if otherwise.

IV. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This chapter is devoted to the presentation, analysis and interpretation of the data gathered in the course of this study. The data are based on the number of copies of the questionnaire completed and returned by the respondents. The data are presented in tables and the analysis is done using the chi-square test.

A. DATA PRESENTATION AND ANALYSIS

For this study, Four hundred (400) copies of questionnaire were administered. Also in the process of data collection, all the 400 copies of the questionnaire were returned representing 100% response rate. This was possible because the copies of questionnaire were administered personally to the respondents in their various offices & houses. This method helped in avoiding unnecessary delays and mortality rate of questionnaire.

Data collected with questionnaire were presented and analyzed using simple percentage table, from which conclusions were drawn especially in the discussion in the distribution of data as provided by the respondents.

Bio Data Of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
male	160	40.0	40.0	40.0
female	240	60.0	60.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 1: gender of respondents

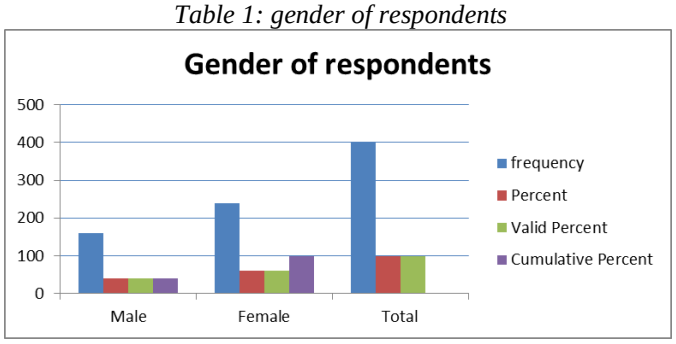

Figure 1: Gender of the respondents

Table1 and figure1 above shows the gender distribution of the respondents used for this study.

Out of the total number of 400 respondents, 160 respondents which represent 40.0 percent of the population are male.

240 which represent 60.0 percent of the population are female.

	Frequency	Percent	Valid Percent	Cumulative Percent
15-20years	60	15.0	15.0	15.0
21-30years	24	6.0	6.0	21.0
31-40years	60	15.0	15.0	36.0
41-50years	120	30.0	30.0	66.0
51-60years	88	22.0	22.0	88.0
above 60years	48	12.0	12.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 2: age range of respondents

Table 2 above shows the age distribution of the respondents used for this study.

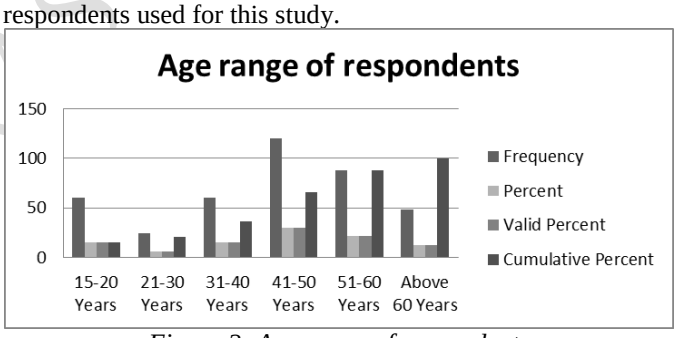

Figure 2: Age range of respondents

60 respondents which represent 15.0percent of the population are between 15-20years.

24 respondents which represent 6.0 percent of the population are between 21-30years.

60 respondents which represent 15.0percent of the population are between 31-40years

120 respondents which represent 30.0percent of the population are between 41-50years.

88 respondents which represent 22.0 percent of the population are between 51-60years.

48 respondents representing 12.0 percent are over 60years.

	Frequency	Percent	Valid Percent	Cumulative Percent
FSLC	80	20.0	20.0	20.0
WASSCE/ GCE/SSCE	140	35.0	35.0	55.0
OND/HND/ BSC	160	40.0	40.0	95.0

MSC/PGD/ PHD	20	5.0	5.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 3: Educational qualification of respondents

Table 3 above shows the educational qualification of the respondents used for this study.

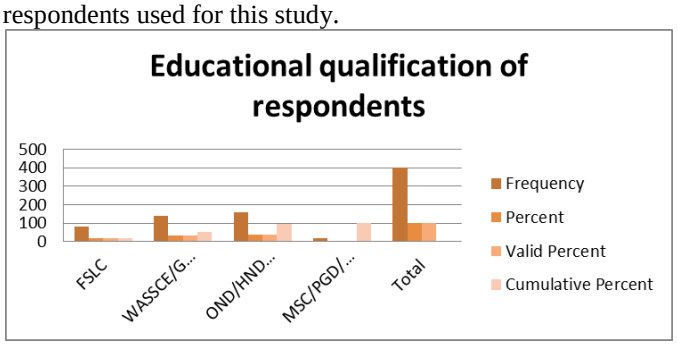

Figure 3: Educational Qualification of Respondents

80 respondents which represent 20.0percent of the population are first school leaving certificate holders.

140 respondents which represent 35.0percent of the population are WASSCE/GCE/SSCE holders.

160 respondents which represent 40.0percent of the population are OND/HND/BSC holders.

20 respondents which represent 5.0percent of the population are MSC/PGD/PHD holders.

	Frequency	Percent	Valid Percent	Cumulative Percent
single	180	45.0	45.0	45.0
married	152	38.0	38.0	83.0
divorced	40	10.0	10.0	93.0
widowed	28	7.0	7.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 4: Marital status of respondents

Table 4 above shows the marital status of the respondents used for this study.

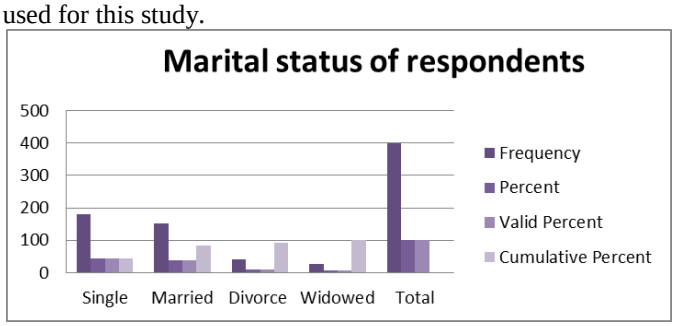

Figure 4: Bar Chart showing the marital status of the respondents used for this study

180 respondents which represent 45.0 percent of the population are single.

152 respondents which represent 38.0 percent of the population are married.

40 respondents which represent 10.0 percent of the population are divorced.

28 respondents which represent 7.0 percent of the population are widowed.

Analysis of Questions from the Questionnaire

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	248	62.0	62.0	62.0
agree	52	13.0	13.0	75.0
undecided	20	5.0	5.0	80.0
disagree	40	10.0	10.0	90.0
strongly disagree	40	10.0	10.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 5: Artificial intelligence has made life easier for man

Table 5 shows the responses of respondents that artificial intelligence has made life easier for man.

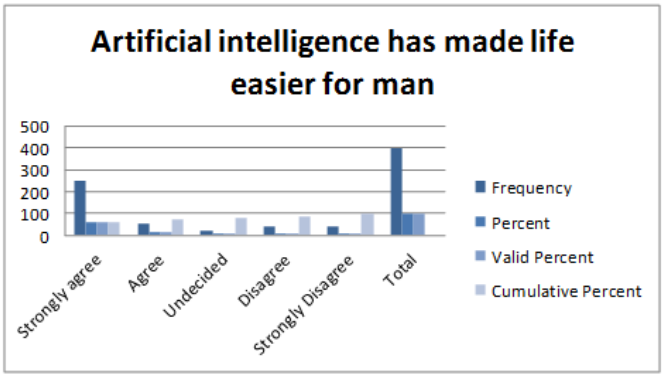

Figure 5: Bar Chart showing the responses of respondents that artificial intelligence has made life easier for man

248 of the respondents representing 62.0 percent strongly agree that artificial intelligence has made life easier for man.

52 of the respondents representing 5.0 percent agree that artificial intelligence has made life easier for man.

20 of the respondents representing 13.0 percent were undecided.

40 of the respondents representing 10.0 percent disagree that artificial intelligence has made life easier for man.

40 of the respondents representing 10.0 percent strongly disagree that artificial intelligence has made life easier for man.

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	200	50.0	50.0	50.0
agree	40	10.0	10.0	60.0
undecided	20	5.0	5.0	65.0
disagree	80	20.0	20.0	85.0
strongly disagree	60	15.0	15.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 6: Artificial intelligence has more merits than demerits

Table 6 shows the responses of respondents that artificial intelligence has more merits than demerits.

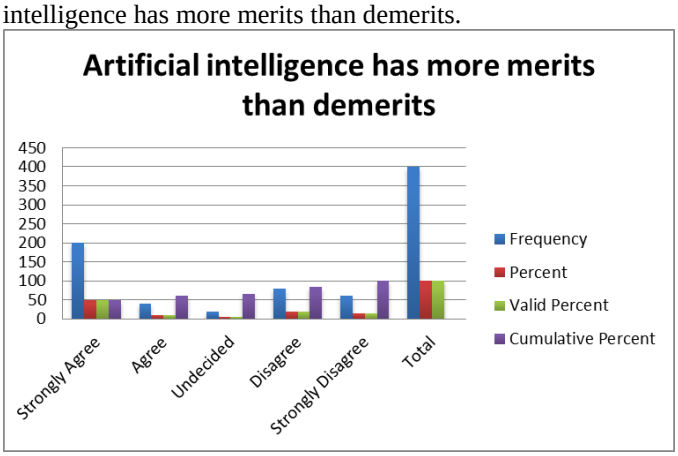

Figure 6: Bar Chart showing the responses of respondents that artificial intelligence has more merits than demerits

200 of the respondents representing 50.0 percent strongly agree that artificial intelligence has more merits than demerits.

40 of the respondents representing 10.0 percent agree that artificial intelligence has more merits than demerits.

20 of the respondents representing 5.0 percent were undecided.

80 of the respondents representing 20.0 percent disagree that artificial intelligence has more merits than demerits.

60 of the respondents representing 15.0 percent strongly disagree that artificial intelligence has more merits than demerits.

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	120	30.0	30.0	30.0
agree	152	38.0	38.0	68.0
undecided	40	10.0	10.0	78.0
disagree	88	22.0	22.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 7: Artificial intelligence has developed or evolved overtime

Table 7 shows the responses of respondents that artificial intelligence has developed or evolved overtime.

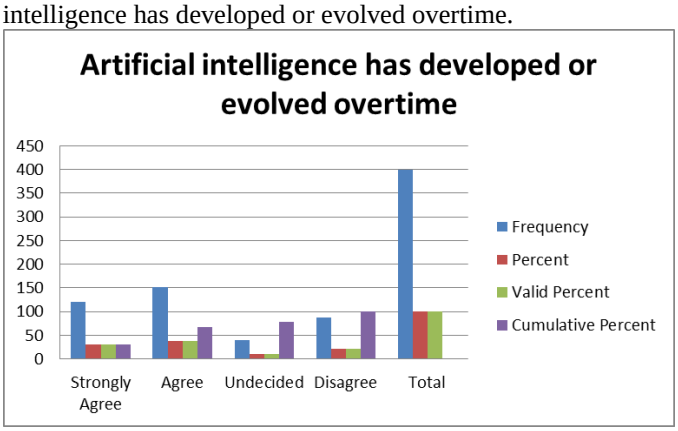

Figure 7: Bar Chart showing the responses of respondents that artificial intelligence has developed or evolved overtime

120 of the respondents representing 30.0 percent strongly agree that artificial intelligence has developed or evolved overtime.

152 of the respondents representing 38.0 percent agree that artificial intelligence has developed or evolved overtime.

40 of the respondents representing 10.0 percent were undecided.

88 of the respondents representing 22.0 percent disagree that artificial intelligence has developed or evolved overtime.

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	120	30.0	30.0	30.0
agree	200	50.0	50.0	80.0
disagree	60	15.0	15.0	95.0
strongly disagree	20	5.0	5.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 8: dev. in Nigeria is majorly as a result of artificial intelligence

Table 8 shows the responses of respondents that development in Nigeria is majorly as a result of artificial intelligence.

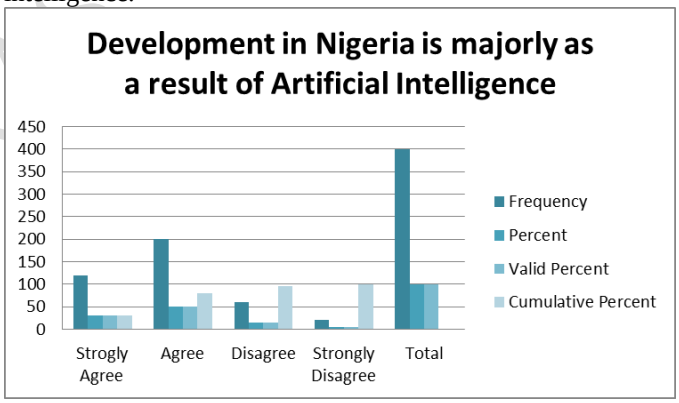

Figure 8: Bar Chart showing the responses of respondents that development in Nigeria is majorly as a result of artificial intelligence

120 of the respondents representing 30.0 percent strongly agree that development in Nigeria is majorly as a result of artificial intelligence.

200 of the respondents representing 50.0 percent agree that development in Nigeria is majorly as a result of artificial intelligence.

60 of the respondents representing 15.0 percent disagree that development in Nigeria is majorly as a result of artificial intelligence.

20 of the respondents representing 5.0 percent strongly disagree that development in Nigeria is majorly as a result of artificial intelligence.

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	168	42.0	42.0	42.0

agree	152	38.0	38.0	80.0
undecided	40	10.0	10.0	90.0
disagree	20	5.0	5.0	95.0
strongly disagree	20	5.0	5.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 9: Artificial intelligence has helped to increase Nigeria's productivity and output

Table 9 shows the responses of respondents that artificial intelligence has helped to increase Nigeria's productivity and output.

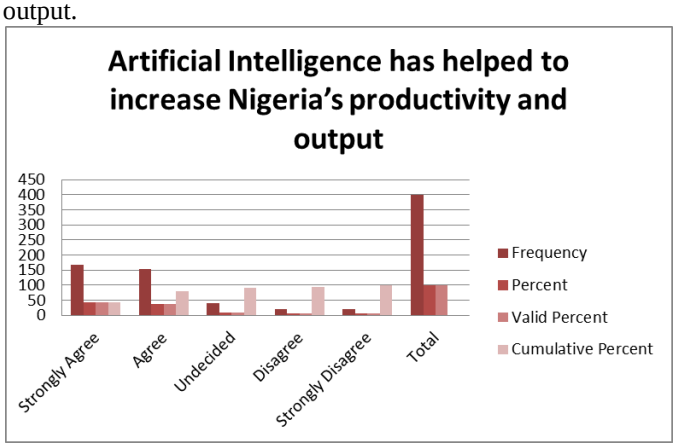

Figure 9: Bar Chart showing the responses of respondents that artificial intelligence has helped to increase Nigeria's productivity and output

168 of the respondents representing 42.0 percent strongly agree that artificial intelligence has helped to increase Nigeria's productivity and output.

152 of the respondents representing 38.0 percent agree that artificial intelligence has helped to increase Nigeria's productivity and output.

40 of the respondents representing 10.0 percent are undecided.

20 of the respondents representing 5.0 percent disagree that artificial intelligence has helped to increase Nigeria's productivity and output.

20 of the respondents representing 5.0 percent strongly disagree that artificial intelligence has helped to increase Nigeria's productivity and output.

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly agree	140	35.0	35.0	35.0
agree	140	35.0	35.0	70.0
undecided	40	10.0	10.0	80.0
disagree	40	10.0	10.0	90.0
strongly disagree	40	10.0	10.0	100.0
Total	400	100.0	100.0	

Source: field survey, January, 2018.

Table 10: lack of adequate artificial intelligence may adversely affect the nation's economy

Table 10 shows the responses of respondents that lack of adequate artificial intelligence may adversely affect the nation's economy.

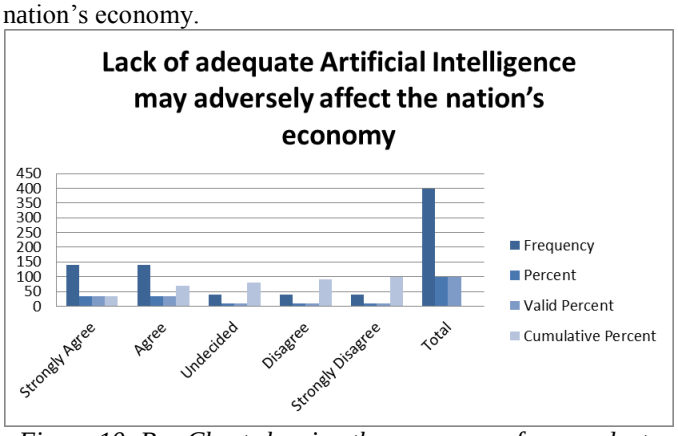

Figure 10: Bar Chart showing the responses of respondents that lack of adequate artificial intelligence may adversely affect the nation's economy

140 of the respondents representing 35.0 percent strongly agree that lack of adequate artificial intelligence may adversely affect the nation's economy.

140 of the respondents representing 35.0 percent agree that lack of adequate artificial intelligence may adversely affect the nation's economy.

40 of the respondents representing 10.0 percent were undecided.

40 of the respondents representing 10.0 percent disagree that lack of adequate artificial intelligence may adversely affect the nation's economy.

40 of the respondents representing 10.0 percent strongly disagree that lack of adequate artificial intelligence may adversely affect the nation's economy.

RESEARCH HYPOTHESES

H_0: Artificial intelligence does not benefit human life in any way

H_1: Artificial intelligence benefits human life.

Level of significance: 0.05

Decision Rule: reject H_0 if the p-value is less than the level of significance, accept H_0 if otherwise.

	Artificial intelligence benefits human life
Chi-Square	111.900[a]
Df	4
Asymp. Sig.	**.000**

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 20.0.

Table 11: Test Statistics

CONCLUSIONS BASED ON THE DECISION RULE

Since the p-value (0.000) is less than the level of significance (0.05), we reject the null hypothesis and conclude that artificial intelligence benefits human life.

V. FINDINGS, CONCLUSION AND RECOMMENDATIONS

A. FINDINGS

The objective of the study was to know if artificial intelligence benefits humans. Findings from the study revealed that artificial intelligence benefits the human race. Artificial intelligence has made life easier for man. Artificial intelligence has more merits than demerits. Artificial intelligence has developed or evolved overtime. Development in Nigeria is majorly as a result of artificial intelligence. Artificial intelligence has helped to increase Nigeria's productivity and output. Lack of adequate artificial intelligence may adversely affect the nation's economy

B. CONCLUSION

Artificial intelligence exhibits some form of intelligence by way of introducing systems that learn new concepts and tasks and also have the ability to reason and draw useful conclusions about the world. Artificial intelligence research is highly technical and specialized, and is deeply divided into subfields that often fail to communicate with each other. Some of the division is due to social and cultural factors: subfields have grown up around particular institutions and the work of individual researchers. The central problems (or goals) of artificial intelligence research include reasoning, knowledge, planning, learning, natural language processing (communication), perception and the ability to move and manipulate objects. General intelligence is still among the field's long-term goals (Bostrom, 2002). Today artificial intelligence has become an essential part of the technology industry, providing the heavy lifting for many of the most challenging problems in computer science.

C. RECOMMENDATIONS

This research work will therefore be of great help to stakeholders in various sectors for example health, finance, education, security, engineering, manufacturing, research and technology in understanding the application and benefits of Artificial intelligence to enhance productivity and effectiveness of the sectors.

The findings of this research work will also serve as reference for academic endeavor to lecturers and students and also help the public who would want to know about some advantages and disadvantages (if any) of the use of the artificial intelligence.

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