Web 2.0 and Business Enhancement in 21st Century

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Abstract

This paper focuses on the imperative of Web 2.0 in bringing about business enhancement in 21st century. It discusses the technological tools of Web 2.0 that could be helpful in promoting business in our generation. Our society has become a global village and information driven. Businesses ranging from small scale, medium scale and large scale businesses must have to adopt the state of the art technologies in order to break bounds and advance into a realm that would help them reduce cost, limit some unfavourable policies and create more business opportunities for themselves and the society at large. There is a very crucial need to transit from the traditional approach to information driven approach to businesses in order to bring about more effectiveness, efficiency and enhanced service delivery in this 21st century. Web 2.0 with its associated tools provides enabling environment for both business life and social life to meet up with the challenges of our time. This study used descriptive approach. It adopted a simple analytical technique that examines the situation on ground. SME Businesses were considered. Google form was used to administer questionnaires and link was created in different social media platforms for people to respond. A total of 130 respondents were obtained. Result from the research shows that Web 2.0 has revolutionized our society and lives by changing the way we do things and adding value to businesses. It was discovered that the positive impact of web 2.0 is being felt in promoting information and knowledge sharing in most organizations that have decided to leverage on the technology. Leveraging business on web 2.0 technology will not only reduce cost, limit some unfavourable policies but will also bring about noticeable business enhancement and crate more business opportunities in 21st century.

Keywords: Web 2.0, Business Enhancement, Leverage, Efficiency, Advancement and Revolutionise

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I. INTRODUCTION

According to [1], fast emerging new technologies is taking everyone in its stride and no one is untouched with its influence. As technology is impacting on our lives that we can no longer do without technology, so also web technology which is an essential part of internet technology is influencing our lives and society. Having access to technology and ability to use technology easily has become one of the important factors to outperform competitors in our society today. Presently, Web technology can be regarded as a unique reformer by bridging the gap between localization and urbanization by making the world a global village. Web technology therefore is the Technology that is constantly changing the business phase from traditional to modern technology by promoting businesses and changing lives in the society. It is a modern technology which is grouped into web 1.0, Web 2.0 and Web 3.0. Today, Cooperate Institutions have embraced this technology; the Web 2.0 Technology due to its innovative strength and its ability to meet customers, shareholders and stakeholder' needs as well as break boundaries within their business environment.

It is very obvious that Web 2.0 as a modern technology has cut across every sector of human lives thereby facilitating business transformation and give room for more business expansion and growth. It is very obvious that Web 2.0 provides the linkage for businesses, ideas, information and knowledge to be linked and shared for organization proficiency and as well help business to have good return on investment. Web 2.0 technologies are a basic technology for every field but its influence in the busines sector is much compared to other sectors of live. It is therefore believed that Web 2.0 technology has provided potentials options for business owners to easily recognise the desire and peculiarities of various customers and stakeholder at the right time and also provide the right solution to their needs. The rate of Information flows in our businesses have be improved due to the deployment of Web 2.0 technology and this has contributed a lot in ensuring service delivery in businesses that have adopted Web 2.0. In the same vein, Human mutual action and act of bringing content to existence is added by web 2.0 as an anticipated outcome that is to guide planned actions by joining information for a common purpose from different authors. Hence, processes of enterprise area made more

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attractive by making communication better, working jointly and handing over in order to receive knowledge in equivalence between assorted individuals that took part in activity. With the advancement of internet, web technology has become rapidly increasing day by day. The web is an increasingly significant source in many phases of life such as: education, commerce, business, employment, government, health, recreation, and so on. This was emphasized by [2] that Web 2.0 means a set of technologies applicable in different fields, mainly in education, but its application for business purposes is becoming significantly stronger since companies achieve and maintain success through a number of positive aspects of their application.

[3] coined the term "Web 2.0," which refers to the web-based interaction that allows creating and sharing content through social web. [4], published that ever since the invention of Web by Tim-Berners Lee in the year 1989, it has rapidly expanded and evolved indifferent phases, namely, Web 1.0, Web 2.0 and Web 3.0. This technology (Web 2.0) is therefore defined as a co-ordination that interconnects, interlinked, hypertext and hyperlinks documents using the internet. It can also be seen as the second phase of web-based groups. Web 2.0 examples consist of Web applications (Google Docs), Social Networking (Facebook, Instagram), Video Allocating Sites (You Tube), Blogs (WordPress), Wikis (Wikipedia), Hosted Services (Google Maps), Podcasting (Podcast Alley), Microblogging (Twitter), Folksonomy (Delicious) etc and so on. There are many technologies used to display and deliver web services. These technologies include JavaScript, Adobe Flash, Ajax, DOM (Document Object Model) etc. Web 2.0 business is generally known as online business or e-business. Hence by and large, web 2.0 commercial enterprise is apprehended with certainty as an online e-business or enterprise. Basically, web 2.0 is a business activity that is conducted online using internet discipline that deals with the science of applying knowledge to practical problems. Beside advertisement that is exhibited on the websites, it consists of other process of existence online viz social networking, email and etc. all considerable characteristic part of internet enterprise numerically can be displayed signifying it's ability to be channelled as an information electronically to computer or similar device invented for a particular purpose.

Web 2.0 offers a lot of advantages to users through the internet while core users of web 2.0 are served through intranet. Practical application of web 2.0 is seen in the use of Google Alerts. This alert help business owners to have up-to-date and make appropriate information available as well. Many companies have acknowledged the potential of Web 2.0 as a new communications channel. But the reality is that its impact will be felt along the entire length of the value chain. Companies will be forced to re-examine outdated business practices and create opportunities to leverage these new capabilities in powerful ways.

II.   METHODS

Due to the nature of this search, descriptive research methodology was adopted. To maintain balance, 40 research papers were downloaded from Google Scholar and Research gate relating to Web 2.0 and were reviewed as well. From the reviewed research works, questionnaire was developed and uploaded using Google form. Link was sent to some SMEs and others shared via social media platforms WhatsApp, Facebook etc.

2.1   Data Collection:

In this research, a survey technique was adopted to collect responses on the level of impact of Web 2.0 on Businesses in 21st Century. The primary data used, was created using Google forms and the survey link was shared via several social media platforms.

2.1.1   Study Population:

The population in this study was made up of 150. Also, staffs of Institutions of higher learning were also encouraged to fill and submit. A total of 130 respondents responded. The questionnaires were analysed using statistical tools and conclusions were drawn from the analysis.

2.2   Web 2.0 Tools

These tools are used to ensure service delivery in the operation of web 2.0. such tools are follows:

1.   Blogs: This is a new form of communication online. A blog is a web page that is often improved. It has continued to improve from time to time due to its innovative nature and its ability to collaborate and promote knowledge distribution. Blogs can be Education, Political, writing blogs etc. it is popularly known as Blogger

2.   Wiki (Wikipedia): Wiki is obtained from the Hawaiian word 'wikiwiki', which means fast. A Wiki is a website pages or set of pages that can be effectively altered by any individual who is permitted. Wiki is a popular site and it is one of the most visited web page(s) of our time. It is highly used by students and researcher. Wiki is one of the tools that made Web 2.0 popular.

3.   Facebook: This is one of the most popular and most used social networking sites of our time. Its user friendliness and captative features made most youths users of Facebook. Its room for people to connect and

interact with one another. Facebook has provided the platform for people to share, interact and connect with friends, families and loved once.

4.   RSS: This stands for Really Simple Syndication RSS is an XML (Extensible Markup Language) folder that summarize information and links to the information sources. It is a family of web format which is used for syndicating contents from the web pages such as blogs, headlines, audio, video etc. With the help of RSS, users can get update information in a current time.

5.   Web Mashups- Web Mashup resembles a Web Site or Web page that consolidates data and administrations from different sources on the Web. Similarly, music mashup is like a one song with the music from another. It is a combination of information from different websites on the web. Web Mashup divided into seven categories like messaging, search, mobile, shopping, mapping, movies and sports.

6.   Instant Messaging: This is a steady communication between at least two or more persons. It has given real time communication using the internet facility.it is structured in such a way that it is easy to transfer file from one medium to another and at the same time have instantaneous discussions and it is widely used in business, education, health etc

7.   Twitter: Twitter is a very popular and micro blogging websites, mostly celebrities and business leaders tweet on these websites. It gives a short update and allows users to write short messages that are noticeable to other users.

8.   Social Media Marketing- Nowadays social marketing is one of the major and most considerable results of Web 2.0. The important websites are: Twitter, Facebook, Instagram, LinkedIn Amazon, Flipkart, LinkedIn, You Tube and many more are top visited websites. In today's world networking is one of the most crucial needs to every user. Therefore, two-third of the internet users visited social media websites daily.

III.   RESULTS

The motivation for this research was to seek and recommend the most available means of enhancing businesses by the use of ICT tools. This was actually on the basis that the manner in which things are done in our get age has changed greatly. The research therefore kicked off seeking answers to the under listed questions:

(i)   How would businesses improve her ability to reach out to new customers?
(ii)   Does the use of Web 2.0 improve our ability to reach out to customers?
(iii)   Does the usage of web 2.0 enhance customer's relationship?
(iv)   Does the use of web 2.0 Facilitate direct customer communications?
(v)   Does the use of web 2.0 reduce operational costs?
(vi)   Does the usage of web 2.0 enhance stakeholder' satisfaction?
(vii)   Can Business owners use web 2.0 in predicting customers' performance?

The following results were obtained at the end of the study:

1. Usage of Web 2.0 to improve ability to reach new customers. Total numbers of 130 respondents were gotten. Out of this number, 6.2% claimed to have No Idea, 23.8% responded yes but with satisfaction, 7.7% said yes but not effective while 69.2% said yes and effective. From this statistic, it is a clear indication that most users of Web 2.0 believe strongly that the use of web 2.0 improves ability to reach new customers. This can be achieved with the use of web 2.0 tools such Facebook, Blogs, Social Media Marketing and Twitter which exist on internet platform. It is therefore imperative to introduce web 2.0 in our 21st Century Businesses.. Figure illustrates this result

1. On a scale of 1 to 5, Does the use of Web 2.0 improve our ability to reach new customer
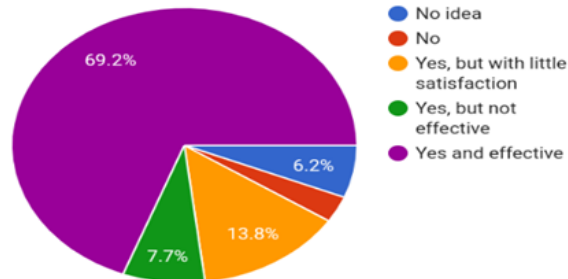
130 responses

Figure 1: Does the use of web 2.0 improve our ability to reach new customers?

2. Does the use of web 2.0 Improve knowledge sharing. From the analysis shows that 5.4% have No Idea on weather web 2.0 would improve knowledge sharing, 8.5% agreed yes but effective, 11.5% said yes but with little effect whereas 74.6% said yes and effective. The survey highlights that majority of the respondents agreed that the use of web 2.0 improves knowledge sharing in businesses. Knowledge is said to be power, the use of web 2.0 will therefore promote knowledge sharing and enhances modern businesses. [5], Web 2.0 technologies are pivotal to share ideas, improved access to knowledge experts and reduced costs of communications, travel, as well as operations. Figure 2 captures the analysis chart:

2. On a scale of 1 to 5, Does the use of Web 2.0 improves knowledge sharing
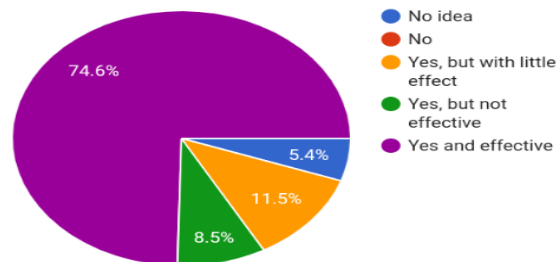
130 responses

Figure 2: Does the use of web 2.0 Improve knowledge sharing?

3   Does the usage of web 2.0 enhance customer's relationship?: Trying to establish the level of web 2.0 in enhancing customer' relationship, the chart shows that 6.9% responded No idea, 13.1% said yes but with slight effect, 8.5% acknowledged yes but with not effective while the large proportion of the percentage 69.2% said yes and effective.   This survey implies that 69.2% have either used or they are leveraging on web 2.0 in the businesses and they have noticed the positive impact of web 2.0 in enhancing 21ˢᵗ Century business as well as helping the organization to meet to the needs of customers and once customers' needs are met, dying business tend to rejuvenate. Figure 3 illustrates the analysis chart:

3. On a scale of 1 to 5, Does the usage of Web 2.0 enhances customer' relationship

130 responses

- No idea
- No
- Yes, but with slight effect
- Yes, but not effective
- Yes and effective
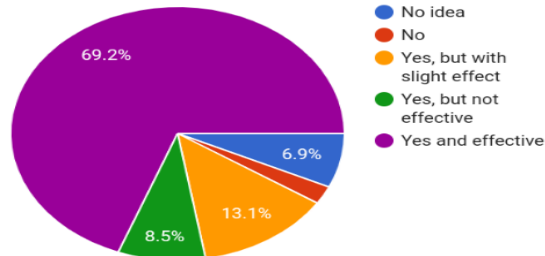
69.2%

6.9%

13.1%

8.5%

Figure 3: Does the usage of web 2.0 enhance customer's relationship?

4. Does the use of web 2.0 Facilitate direct customer communications? The impact of Web 2.0 on facilitating direct customer communication was evaluated. From the conducted survey, 7% yielded No idea, 16.4% said yes but with slight effect, 7% acknowledged yes but not effective while 67.2% said yes and effective. This shows that most respondents totally agreed that Web 2.0 do facilitate direct customer communication and effect of this is seen in businesses getting responds from their customers and paying attention to it thereby reducing customers dissatisfaction. Figure 4 illustrates the analysis chart.

4. On a scale of 1 to 5, Does the use of Web 2.0 facilities direct customer' communication

128 responses

- No idea
- No
- Yes, but with slight effect
- Yes, but not effective
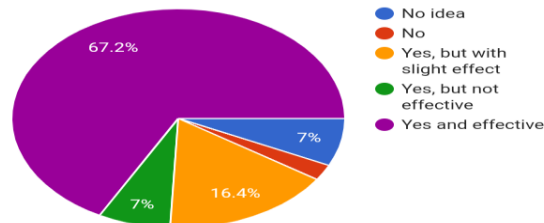- Yes and effective

67.2%

7%

7%

16.4%

Figure 4: Does the use of web 2.0 Facilitate direct customer communications?

5. Does the use of web 2.0 reduce operational costs? Figure 5 shows the analysis chart

5. On a scale of 1 to 5, Does the use of Web 2.0 reduces operational cost

130 responses

- No idea
- No
- Yes, but with slight effect
- Yes, but not effective
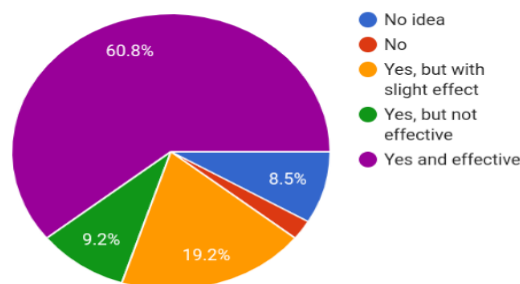- Yes and effective

60.8%

8.5%

9.2%

19.2%

Figure 5: Does the use of web 2.0 Reduce operational costs?

The survey explains customers' perception about the use web 2.0 to reduce operational cost that most businesses face today. Operational cost as we know has hindered most businesses from maximizing profits and achieving the vision of the business. From the chart, 8.5%have no idea about the impact of web 2.0 in reducing operational cost, 19.2% said yes but with slight effect, 9.2% said yes but not effective while the remaining proportion said yes and effective. It therefore shows that majority of the respondents believed that with the use of web 2.0 operational cost will be reduced. [5], point that Web 2.0 technologies can be a powerful tool for an organization; their interactivity promises to bring employees into daily contact at lower cost.

6 Does the usage of web 2.0 enhances stakeholder' satisfaction? Figure 6 shows the analysis chart
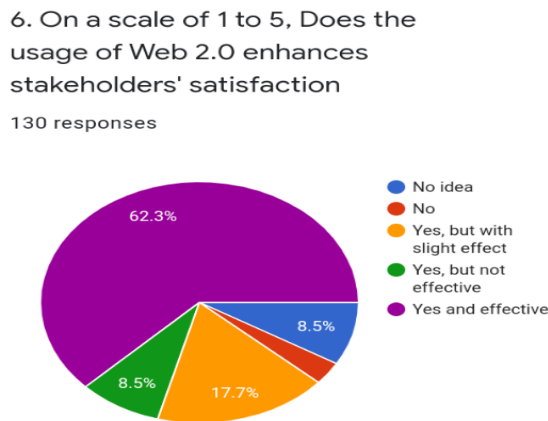

Figure 6: Does the usage of web 2.0 enhances stakeholder' satisfaction?

The conducted survey reads that 8.5% said No idea, 17.7% responded yes but with slight effect, 8.5% agreed on yes but not effective while 62.3% boldly said yes and effective. This survey attests that large percentage of the responds is in consonance that web 2.0 enhances stakeholder' satisfaction. Satisfying stakeholder' in business is a key to the success of every business and also help to sustain the business.

7, Which of the following is the most challenging to web 2.0? Figure 7shows the analysis chart
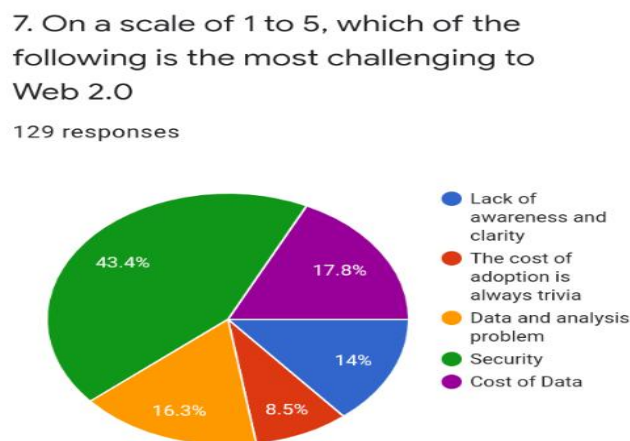

Figure 7: Which of the following is the most challenging to web 2.0?

Web 2.0 like any other technology has challenges peculiar to it, these limiting factor tends to discourage most businesses from adopting web 2.0 as a platform to drive their business. The survey indicates that 14% agreed that lack of awareness and clarity is the most, 8.5% have the strong believe that the costs of adoption are not always trivia, 16.3% agreed that Data analysis Problems, 43.4% supports the idea that Security is the most limiting factor while 17.8% feels that Cost of Data is the most challenging to web 2.0.

IV. DISCUSSION

21st Century is the Century of doing more with less. It is the Century of innovation and breakthrough and Web 2.0 is one the success story of the 21st Century. [6], for the operations of the 21st Century, the professionals of intelligence must develop a system that is practical but innovative, fast but providing information at a considerable quality to make an impact on the decisions.

The language of 21st Century is technology. Technology provides linkages for 21st Century businesses via email, Facebook, blogger, Twitter etc. 21st Century businesses are key towards meeting customers' needs and as well guarantee that staff enjoys job satisfaction at work place. For workers to enjoy satisfaction and ensure service delivery, Web 2.0 has to be introduced because web 2.0 is the technology that will always ensure work load balance with ease. It is therefore, the technology of the 21st Century.

We are so attached to technology that today we now have a technology community, a community that relies on Internet for daily living. The Internet is so popular due to its user friendliness of Web 2.0, most youths hardly spend a day without Internet visitation. [7], the easiness of Web 2.0 technologies allow users to express their ideas and knowledge with others in online community without knowing technical expertise. [8], today, life without technology is equivalent to life without air. Web 2.0 is a technology that has touched our lives in various ways. In the education sector, Web 2.0 has provided an enabling environment for research and learning. Students are more interested to participate in online classes and their performances have improved possibly due to academic videos that are made available to them.

This was highlighted by [9], that there are many benefits of using these resources for educational and research purposes, like Web 2.0 will enable researchers to create, annotate, review, reuse and repurpose information/data. One can therefore say that Web 2.0 is the modern innovative driving force in 21st Century businesses thereby promoting efficiency and Service delivery as well. The speedy acceptance of Web 2.0 by the people is an indication that businesses and lives are been transformed to good. This transformation is depicted in the e-commerce sector; which today it is the primary hub of modern business. Businesses like Jumia, Konga and Amazon are leveraging on the power of Web 2.0 technology. [10] therefore point that Web 2.0 is a collection of technologies, business strategies, and social trends.

[11], Web 2.0 is a term that describes the changing developments in the use of World Wide Web technology and Web design that aims to enhance creativity, procure information sharing, increase collaboration, and improve the functionality of the Web as we know it. According to [12], Web 2.0 has boosted our business using Internet as a platform.

Today, people spend more time online and are using Internet for enhanced services, suitability and profitability. For example, the society has incorporated Internet banking than physical banking. E-commerce is the order of the day presently (people even buy cooked food online), receive weather updates and alerts, collaborate and make friends online thereby breaking boundary limits and other possible innovation of the Web 2.0 technology. [13], the companies which are already tied to one another with the help of current technologies are able to enjoy competitive advantages and outperform their competitors by the use of the latest social media platforms. In Nigeria, the transport sector has been transformed in states like Abuja and Rivers. This is as a result of the introduction of Ubber into our transport system. Ubber drivers and passengers relies on Web 2.0 technology thereby reducing risk, cost and wastage of Time that is associated with public transport system.

Web 2.0 Technology will make companies to have access to much broader range of trading partners to interact and collaborate with and not only to buy and sell more efficiently. By doing business electronically, companies can maximize supply chain efficiency, improve service to customers, open themselves to the global market and global opportunities, and in the end maximize their profit margins. Aspects of Web 2.0 that applies knowledge to scientifically solve practical problems makes user to communicate, bring content to existence and portion it amongst user's through social networks and group of people very easy in an area and to have a non-illusory content of direct observation in virtual world. Also, to have content structured on Internet with persons that collects contents.

Web 2.0 as a rapidly moving practical application of technology has captured without exception the interest of all in its significant progress and its induction into action has been felt by everyone. The easy use of web 2.0 technology has become a crucial reason to surpass contestants that are expected to be defeated. Web 2.0 technology therefore has become the greatest merit that has been recognized with gratitude by all and has made life easier at the speed of light. According to [14], Web 2.0 facilitates major properties like participatory, collaborative, and distributed practices which enable formal and in formal spheres of daily activities going on Web. Rich peer to peer mutual action among user's can be passed down by Web 2.0 ability of having the inherent capacity for coming into being, rendering capable the act of bringing and working jointly across enterprise associates. Hence, creating work done by person(s) to benefit others as characterised by action and patterns of enterprise. The manager at which user's activity is directed towards getting things done are affected strongly by Web 2.0 and act together on the information by changing the attention of the user(s) concentration

on the available information. Hence peer-to-peer mutual action among user's can be passed down by Web 2.0 ability of having inherent capacity for coming into being so as to promote the growth of working jointly.

Introduce Web 2.0 into our today's business, three trends are bound to have an impact on business performance: Internet of Things (IoT), the evolution of the cloud, and disruptive business models. You may not have thought much about the impact of the IoT on the workplace. But its significance goes well beyond imaginary pictures of home appliances "talking" with one another. In our increasingly connected world, this trend can help you to capture data that gives you fresh insights on operating efficiencies, customer, vendor, employee needs and behaviors. IoT is at the fore front of making the world a global village and it is likely that IoT will transform our existence on earth and the main force that pushed us into 21ˢᵗ Century. IoT is therefore defined as a network of physical objects or devices that communicate and interact with each other via an internet connection.

According to the [15], IoT can revolutionise the business and consumer landscape by bridging digital and material worlds. People can now buy and sell from any point and at any time just because of the power of IoT. IoT has transformed businesses into its simplest form that real time sales, customer' behaviours are monitored and at the same time reduces cost through the use of IoT sensors. By leveraging on the strength of IoT, Businesses can be changed from traditional business to world class business. This is made by having access, monitoring and sharing relevant information from different sources. This was expanded in [16] publication where IoT is seen as a network of physical objects, consumer devices and enterprise assets containing technology to communicate and sense or interact with the external environment. In all, the driving strength of IoT lies on its ability to monitor, collect, connect, monetize and optimise. It is IoT that made Web 2.0 to be regarded as a smart system. This is because of data and these data are gathered, analysed and saved in the Cloud for future use. The Cloud is the repository where all the business information is stored for future reference. [17], Cloud computing technology (CCT) is a revolutionary new way of leveraging the power of the Internet to provide software and infrastructure solutions to businesses around the world.

[18], defined cloud computing as the concept of using the Internet to allow access to technology enabled services that can be rapidly provisioned and released with minimal management effort and without control over the technology infrastructure which supports them. A good functionality that the cloud will provide to businesses in the 21ˢᵗ Century is security. Information that are uploaded to the Cloud are protected from unauthorized user(s) using authentication functionality, Cloud information are saved. This Cloud functionality will ensure data integrity, confidentiality and availability are guaranteed using 2-factor authentication technique.

Cloud technology is therefore a platform for numerous advantages. [19], portrayed that Cloud-based technology can spur numerous benefits for organizations such as capital investment savings, simplified operations, scalability, improved information visibility, sustainability, and faster deployment. As the cloud and the IoT continue to grow, we'll see further opportunities to implement disruptive business models. These technological advances promote innovation and make it more affordable than ever to bring game-changing ideas to business. In effect, these technologies are rewriting the business playbook and making the old rules of competition obsolete. By tapping into the full extent of their power and positioning businesses for optimal performance and sustainable success.

We all are mindful that Uber is the largest taxi company in the world and it has no transport or taxi firm, history has recorded that Facebook is the most popular social media of our time and Alibaba is the most respected business seller but it has no stock. All these and many more are as a result of disruptive technology. Disruptive technology can be seen as a technology that suddenly uproar technological proceedings and movement. This technology has strength from both the Cloud and IoT together and it has gone a long way to enhance our business outfits. This recent technology has been able to move businesses across different borders of the world. Due to its impact on business, it is therefore referred to as disruptive business model.

[20] argue, for example, that managers can use the innovation of business models not only as a source of value proposition to the market but also as a way to gain competitive advantage, causing improvements in the financial performance of the company. This is an indication that some managers are leveraging on disruptive business model to enhance their businesses making it a 21ˢᵗ Century business model. Disruptive business model therefore has overtaken other business models by its ability to restructure and create new models and add value to businesses. Despite all these advantages of Web 2.0, some people still feel and believe in the old way of doing business. They feel that introduction of Web 2.0 will reduce the output level of some staff because some staff will spend more time online browsing and charting with friends and relatives which is highly against work values. Also, Security is another challenge that Web 2.0 is facing. Most SME's in developing countries are not certain that their customers information is saved and some Customers at the same time are having fear of the unknow because of ugly experiences associated to internet fraud. These have made some to remain in their comfort zone not minding the success stories of Web 2.0 Technology. From all these, it is very clear that Web 2.0 is the modern force that is driving our 21ˢᵗ Century business and ensuring service satisfaction within stakeholders, shareholders and customers. It is therefore very obvious that starting an internet business has

become the centerpiece of strategies to achieve inclusive growth. In conclusion, notwithstanding the increasing consciousness, many more businesses are yet to adopt Web 2.0 Technology.

V. CONCLUSION

Due to help of web2.0, different application and benefit of technology is possible because web2.0 has become a central cohesive source of support for technology. Hence particularly, formal and informal specific behaviour of aspects of life. The term enterprise 2.0 came to be by the application of web2.0 idea derived from enterprise environment due to how colleagues coexist in organization towards doing work with the obligation to powerfully act effectively and collectively towards psychological results of learning and reasoning by ensuring that information and people are interwovened inside-out. Hence, ensuring that relevant knowledge of information is encouraged and as well ensure service delivery in businesses.

Web2.0 technology and its tools are used by many enterprises and organizations, yet some are still not using it because of the deficiency of skills, cost of data, Data and analysis problem and security in web2.0 technology. Therefore, the uniformity into a whole of latest resources of web2.0 in the act of enterprise deserved an absolute concentration. It is of great significance and value for businesses to change in order to suit instructions so as to fill with quality and instil web 2.0 technology current reality of skills due to increase in the world rising workforce capabilities, competition and improved change in technology. Therefore, it is of extreme importance to master web 2.0 skills and not to take them for granted because business intend to be a success beyond reality.

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