

ORGANIZATION VIRTUALIZATION AND QUESTION OF JOBS SUSTAINABILITY: INSIGHT FROM SHELL NIGERIA.

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Abstract

The changing nature of the work place occasioned by communication technologies has brought into question their relevance in job sustainability. The general belief is that computers have the ability to do jobs meant for more people. This paper examines the influence of virtual communication in Shell Nigeria. Based on the qualitative research method and anchored on the contingency theory, the paper used indepth interview to solicit data from the top management of Shell Nigeria. Findings from the study show that the organisation does not set out to develop policies that will cause people to lose their jobs. The study concludes Virtual Communication Technologies are in strong ways helping to create jobs in the global effort at curbing employment.

Keywords: Virtualization, Job loss, Organization.

Introduction

The purpose of this study is to examine the role of virtual communication in job sustainability or loss in Shell Petroleum Development Company, Port Harcourt. The strategy employed by Shell in attempting to have a seamless virtual organisation and how these in turn increase their chance of being people friendly. The focus is on Shell Petroleum Development Company of Nigeria and the relationship between Virtualisation and job creation and loss in the organisation

While it is clear that increased productivity is the main drive of virtual organisations, there are other reasons for organisations to strive to operate virtually and according to

Cascio (2000), they include:

- **Sharing of core competencies:** new employees can learn faster, reduce staff turn rate and take care of retirement issues.
- **Globalisation:** provides avenues to tap into human resource from part of the globe.
- **Cost of logistics and safety:** the cost of travel and its associated risk is reduced.
- **Quick decision making:** Important decision can be taken on time on any matter that relate to the organizations business.

In the years ahead, more and more organisations are likely to transit into virtual organisations and the reason for this movement is simple. Virtualisation if properly applied can guarantee increased productivity and maximization of set goals and objectives through reductions in HSE incidents, loss time, travel time, approval time, etc and make comparisons with other players in the industry a lot easier and cheaper.

No doubt, there are clearly enormous benefits in going virtual especially in the operational expenses. There are also a lot of problems with virtualization. Apart from the technological challenges associated with virtualisation such as hacking, vulnerability of interconnected systems, information overloads, E-waste, terrorism, cultural problems, environmental problems, social responsibility problems, management of the virtual teams just to mention a few, there is the more worrisome challenge of the fear and claim of citizens that the use of information and communication technology creates a lot of redundancy which leads to loss of jobs. Yet Shell Petroleum Development Company (SPDC) like many other organisations insists that the use of virtual communication is the way to go if they must operate effectively. This organization has been on the transiting process to virtualization for over ten years now. One therefore wonders whether the use of virtual communication in the process of this virtualisation by Shell Petroleum Development Company has resulted in job creation or continuous laying off of workers. It is therefore the main focus of this study to ascertain if going virtual simply amounts to workers losing their jobs or if it has a job creation advantage. In other words, how has virtual communication influenced job creation or loss in Shell Petroleum Development Company, Port Harcourt?

The reality of virtualization has been captured by Grainier and Metes;

Virtual reality, virtual classrooms, virtual surgery, virtual offices, virtual cooperation, virtual car lots, virtual everything have crept into the vocabulary of contemporary digital world. Every day another family activity or place suddenly “goes virtual.” This incredibly fast moving decade of the twentieth century is bringing us to virtual realms that will forever change the way we

work, learn, govern, shop, and entertain
ourselves(Grainier& Metes 1995 p. 2).

Virtualization or the use of virtual communication technologies in organisations involves the ability to employ such technologies in making the transaction of businesses easy in organisations. It makes communication between employees easier than it used to be. However, if this same phenomenon that is supposed to make life easier for employees is also responsible for loss of jobs, then there is need to look at what the challenges are. This is what the study sought to analyse and investigate.

Objectives of the study

This study therefore looked at the challenges of going virtual in terms of job creation and job loss in shell Nigeria. The place of information technology and communication in a virtual organization, the place of virtualization in creating organization's culture and the strategies require for such transition.

Information technology and the virtual organisation

Information technology is changing the way organisations operate. It is affecting the entire process by which companies create their products. When we talk about information technology, we simply are talking about those systems and technologies that are employed to make easier, the business of information gathering and dissemination. Business organisations use these information technologies for different reasons and purposes. Most importantly, information technologies have become major tools in achieving competitive advantage over other competitors in the market. Some of the technologies employed by organisations for gathering or dissemination of information include; computer, Internet, pagers, cell phones, palmtops, etc. It is important to also note that information technologies are not just for gathering or dissemination of information, but also for improvement of products and reduction of overheads. Initially, companies used information mainly for accounting and record-keeping functions. Today, information technology is spreading throughout organisations and is performing optimization and control functions as well as more judgmental executive functions. Information technology according to Porter (1998) is generating more data as a company performs its activities and is permitting it to collect or capture information that was not available before. Such technology also makes room for a more comprehensive analysis and use of the expanded data. Information technology not only affects how individual activities are performed but through new information flows it is also greatly enhancing a company's ability to exploit linkages between activities, both within and outside the company. The technology is creating new connections amongst users and between activities and companies can now coordinate their actions more closely with those they interface with.

Information technology is sweeping through economies and has been treated by many writers who agree that it is changing the way companies do business. Wireless technology or office automation as some choose to refer to it has acquired strategic significance and is affecting all businesses. Tiamiyu in Soola (2000) in justifying his reference to the phenomenon as office automation stated that it is the process of acquiring and integrating appropriate information technologies with existing manual tools and procedures to facilitate and improve office work. This is exactly what information technology does to organisations. However, it is important to note that while it can be said that no organization can go virtual without first being automated, there is a difference between mere automation and virtualization. While office automation could be defined as a situation where machines and other forms of technology are employed to make office work much easier, virtualization is the use of those technologies as a vehicle for carrying out the activities of an organization just the same way it would have been done physically.

Organisations seek for ways to use information technology to their competitive advantage. Getting rich information was prohibitively expensive, and the tools for analyzing and disseminating it were not available in the 1980s and even early 1990s. Nevertheless, on the edge of the twenty-first century, the tools and the connectivity of the digital age now gives us a way to easily obtain, share and act on information in new and remarkable ways. (Gates 1999, p xv). In the digital age, “connectivity” takes on a broader meaning than simply putting two or more people in touch. The internet for instance, creates a new universal space for information sharing, collaboration and commerce. It provides a new medium that takes the immediacy and spontaneity of technologies such as television and the phone and combines them with the depth and breadth inherent in the paper communication. In addition, the ability to find information and match people with common interests is completely new. However, organisations are becoming more dependent on people than ever before. According to Hope and Hope (1997, p65): Even today most computers cannot match the intelligence of a worm. Their increasing structured information into useful knowledge is a wonder of the age. As Drucker (1995, p12) noted, knowing how the typewriter works does not make you a writer. Now that knowledge is taking the place of capital as the driving force in organisations worldwide, it is also too easy to confuse data with knowledge and information technology with information.

Every organisation depends on communication to meet its goals. Advances in information technologies have dealt organisational communication a deck of new cards and this can only do one of two things – help the organisations reach new heights or kill the organisations. No doubts, information technology helps in decentralized decision making, improves customer support, wins important orders and reduces mistakes and missed opportunities. This cannot be possible if the technologies are not properly applied to enhance organisational communication.

Only organisations that realise that information technology is one of the keys to power and influence can survive in today's business world. In the past, power resided in material resources such as land, gold, or ore. Money then became the means of amassing great power. Although power still resides in material goods such as land, gold and money, the true key to power in information age is knowledge. The individuals with expertise for putting data on silicon chips or designing the best automobiles are the ones with the power.

In order to gain this knowledge. Galle Jr. (1996: p72) observe that:

Business appetite for information has grown tremendously. Companies of all types collect, manipulate, store and share information on every kind of data conceivable, from demographics to the latest predictions of future trends. The organisations best able to retrieve, store, manipulate and share information among organisational members will be the strongest competitors in this fast – paced information age.

For organisations to acquire, store, process, manipulate and share information in the shortest possible time so as to compete with other players in the market, information technology must be employed.

Information technology is changing the way organisations operate. It is affecting the entire process by which companies create their products. When we talk of information technology, we refer to those systems and technologies that are employed to make easier the business an organization does. There are information technologies for different reasons and purposes. Most importantly, information technologies have become major tool in achieving competitive advantage over other competitors in the market. Some of the technologies employed by organisations for gathering and dissemination of information include, computer, internet, pagers, cell phone, communicators, PDA and other software installed in the computer systems etc. It is important to also note that information technologies are not just for gathering or dissemination of information, but also for improvement of products and reduction of turnover time, just to mention but a few. Information technology according to Porter (1998:81) is generating more data as a company performs its activities and is permitting it to collect or capture information that was not available before. Such technology also makes room for more comprehensive analysis and use of the expanded data. Information technology not only affects how individual activities are performed but, through new information flows it is also greatly enhancing company's ability to exploit linkages between activities both within and outside the company. The technology is creating new linkages between activities, and companies can now coordinate their actions more closely with those of their buyers and suppliers. Information technology is sweeping through economies and has been

treated by many writers who agree that it is changing the way companies do business. Wireless technology or office automation as some choose to refer to it has acquired strategic significance and is affecting all business. Soola (2000:116) states that office automation refers to the process of acquiring and integrating appropriate information technologies with existing manual tools and procedures to facilitate and improve office work. This is exactly what information technology does to business organisations. However information technology affects organisational communication severally. Basically though, organisations seek for ways to use information technology to their competitive advantage against other competitor organisation. Information technologies affects the way companies' pool skill and knowledge of their work forces. Thus they offer new opportunities for knowledge management and ways to build on the learning within companies. The development of sophisticated database and Internet enable companies to build a core of knowledge upon which they can draw globally in unprecedented ways (Cairncross 2002, p13). It is common today for organisations to expect managers to be reachable in the evenings, weekends, at lunch and on vacations. There may be nothing wrong with that in itself but in the past, cost of communicating information was high enough to make the sender pause and ask whether the message was worth sending. That constraint has vanished. The cost of sending an additional e-mail is now a few moments of sender's time.

Communication in a Successful Transitioning Process

Miller (2006) asserts that the world has become a global market economy requiring the participation of all. He contends that improvement in transportation and telecommunication help connect individuals and organizations together. Communication is a key factor in a transitioning organisation. It is important for the organisation to develop a communication strategy for managing the process. This would include how the transition would be communicated to members of staff and all other publics, ensuring that the transitioning is not misunderstood by members of the publics, another basic consideration is how the communication will be sustained throughout the transitioning period and beyond. Communication is the backbone of every organisation, it is central to the existence of every organisation. When we talk about structures in the organisation, it is communication that holds all organisational structures together because from the development of the structure, to the implementation of the structure, effective communication is required to make it work. Goldhaber (1993, p.128) in an attempt to explain how difficult it is to define communication told this story.

A friend was once seated in an airplane next to an elderly man. Shortly after takeoff, the man asked my friend what he did for a living “I teach communication at the university, answered my friend. The other passenger asked, “are you into radio television? “No,”

replied my friend. “Do you help children with speech problems?” “No I'm teaching students how to be better communicators when they meet people”, my friend answered, the elderly passenger was silent for the rest of the trip. Just before the plane landed, the elderly passenger said to my friend, “hmmm, I'd better watch what I say.

(Goldhaber 1993, p.128).simplistic definition that it is the creation and exchange of messages become very useful. In other words, rather than talk about the scope of communication, this situation simply concerns itself with the use of messages by human beings. Communication will therefore be considered to take place when one human being attaches meaning to a symbol(s) regardless of whether that human being originated the symbol(s). It is better to consider the notion of intentionality and presume that all messages intentionally or unintentionally communicated by human beings, represent communication. The only other limit that can be placed on the process is the locus within a complex organisation.

Strategizing with Information Technology

Hope and Hope. (1997) review the changing nature of society and concludes that we are an age of societal transformation. They dispel the earlier view that heralded the industrial revolution and reasoned the modern age is a knowledge economy driven by information. Job security seems but a memory as one large organisation after another downsizes and re-engineers. They assert that prospect for prospect for growth, jobs, education and social stability are less predicted today than at any time since the 1930s. “In the information age, a company's survival depends on its ability to capture intelligence, transform such intelligence into usable knowledge, embed it as organisational learning, and diffuse it rapidly throughout the company. In short, information can no longer be abstracted and stored at the corporate level” (p65); it must be distributed and exploited as a source of competitive advantage. The rapid pace of technology change is creating a wide array of new business opportunities. The development of the internet, for example, with its global reach and tens of millions of users, is opening up possibility for electronic banking, education on demand, digital photography, virtual shopping and virtual factories; ultimately, virtual corporations, it has the potential to change almost every aspect of business life. Global telephone and satellite communication are leading us towards personal telephone numbers and video links no matter where we happen to be on the planet. As information technology becomes more widespread, the opportunities to take advantage of a new competitive scope will only increase.

Virtualisation and Culture

Slowly but steadily members of every organisation develop a culture and over time they hold deeply to that culture and become resistant to change. Nevertheless, as

deeply as cultures may be held, they still do and can be changed. When as Africans we do a mental check of our culture twenty years ago and then compare it to ten years ago and then today, you will find that some of the strongly held cultural values have over the years changed. Some of these changes came gradually some radically. This is the same with organisational culture. During transitioning, organisations must take into consideration the culture of the organisation. As Deetz, Tracy and Simpson (2000 p29) put it, like any change in business strategy, cultural change can and should only be attempted with clear objectives. Before initiating a change process the organisational leader should be clear as to what the character of the existing culture is and what functions the existing culture performs. This requires careful assessment.

Understanding cultural change is essential to guiding a transition and assessing cultural compatibility in transitioning organisations. At every point in time there is an organisation going through a transitioning process and most times when organisations go through transitioning, their major considerations are usually on strategic, financial and operational issues. Organisations always ignore the human aspects of the organisation forgetting that this ignorance can lead the organisation to financial failure even with the best financial plans. When organisations ignore the human aspects of the organisation they have invariably ignored the organisational culture. In condemning this method of organisational transitioning, Deetz et al (2000, p.162) noted that increasing evidence suggests that cultural incompatibility is the single largest cause of failed projected performance in restructuring and mergers.

Theoretical framework

This study is anchored on the Contingency Theory propounded by Fiedler' in 1967. The theory emanated from system designs, the theory stresses the idea that there is no one best way of effectively organizing. The basic assumption of the theory is that the nature of an organization and its environment influence its approach to organizing. In other words, organizations will structure their internal features to match the demands of its environment. Lawrence and Lorsch in 1969 had earlier contend that the amount of uncertainty and rate of change in an environment impacts the development of internal features in organisations.

Wiio and Goldhaberwhile expanding on the thesis of the theory instructed that persons interested in organisational communication should consider such questions as the following: What are the contingencies under which organisations communicate best when confronting their environment? Specifically, do different types of organisations have different communication needs? Do organisational internal contingencies (demographics such as age, sex, education, seniority, management level, and amount of communication training) affect communication needs? Are different demographics better predictors of communication need in types of organisations? Etc. In relation to this study, the adoption of technologies is a

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deliberate strategy to bring Shell in line with current development in technologies which can help the organization run effectively.

Methodology

This study is anchored on two methods, the literary analysis method and survey method with a focus on indepth interview. The interview was directed at top Management of Shell Petroleum Development Company of Nigeria. The interviewees were two Senior Managers. The interview was intended to find answers to questions bothering on how Virtual communication technology helped the organisation meet their set goal as well as how virtualisation influenced employment and lay-offs in the organisation. There were 13 structured interview questions in all.

Analysis of data from interviews

The criteria for the interview were as follows:

1. Adoption of Virtualisation and attainment of set goals in SPDC
2. Virtualisation and organisational effective.
3. Virtualisation in SPDC and employee commitment.
4. Virtualisation, job creation and job loss.

Interview with IT Manager Soda Project SPDC Port Harcourt

Adoption of virtualisation and Attainment of Set Goals in SPDC.

Mr. Sylvester Okoye identified cost reduction as the most important thing for most organization. He said that SPDC believes in the lean method which according to him simply means that if you reduce movement you save time and if you save time, you save cost. The IT manager stated that producing at the lowest possible rate is a goal in SPDC and that ICT has helped the organization do that. He stated that ICT has helped the organisation save cost in the areas of land and air transport, accommodation etc. He concluded that one of the core goals of SPDC is to explore and produce at a cost effective yet safe manner and that ICT has helped Shell Petroleum Development Company achieve that.

Virtualisation and organisational effective.

The IT manager confirmed that the adoption of virtualisation in SPDC has made the organization more effective, that it will be difficult for members of staff to meet up with their performance indicators without the use of ICT because every job they do today is ICT based, Mr. Okoye stated that it is only through virtualisation that management in Nigeria and even their parent company can seat wherever they are and monitor what is going on in the field. This was impossible without the new media and this way a lot of cost and HSE issues were eliminated thereby making operation more effective that when it was just the old media. He further said that what SPDC has today is an online real time system where an elaborate meetings take place in several locations at once and it feels like everyone is in the same room. He concluded

that there is little to be compared between when SPDC used just the old media and now with the new media.

Virtualisation in SPDC and employee commitment.

From the interview with Mr. Okoye it is clear that the adoption of virtual communication technologies encourages members of staff in SPDC to be more committed to the organization. He imagined that if a member of staff who must get the job done had to go under the rain to deliver a surface mail just because there is no virtual communication technology to send the same mail as an email, such staff cannot be as committed as a staff who has it available and can deal with all his/her task and target from the comfort of the office. Mr. Okoye confirmed that the members of staff on their platform are about six thousand if you add up both SPDC and SNEPCO but that SPDC has more people and he said they should be about four thousand to four thousand five hundred people. The interview further showed that the benefits of virtualisation are enormous and that it is these benefits that lead to the commitment drawn from members of staff. Clearly with the adoption of virtualisation, members of staff are able to work from anywhere, not necessarily from their offices, and this creates life/work balance which was almost impossible before the adoption of virtualisation.

Commitment to HSE by the organisation also leads to staff commitment to the organisation. People would naturally want to work in a safe environment and that is what virtualisation provides for SPDC workers.

Virtualisation, job creation and job loss in the organisation.

Adapting to change is usually a major issue in every organisation. Going virtual comes with its own challenges. Though these challenges exist, they cannot be compared to the benefits of adopting virtual communication. The organisation has to break even, the organisation has to meet her set goals and objectives going virtual strongly supports meeting those set goals and objectives. Based on the interview with Mr. Okoye of IT department of SPDC, it is clear that the organisation does not set out to develop policies that will cause people to lose their jobs. Rather, the organisation constantly send people on training to ensure that they catch up with the ever changing communication technologies. No doubt, because virtualisation reduces the number of persons required to do specific tasks, virtualisation also creates new kind of jobs. A very simple example can be deduced from this illustration. Before now, after an officer finishes his report, the report will be printed packed and handed to another person who will take the package to the mailing room from where it will be distributed to all those expected to receive the report. Today however, all the officer needs is to prepare the report and at the click of a button, everyone who should get the report would receive it. From this illustration, about four to five persons would have lost their job because nobody is needed to take the mail to mail room and nobody is

needed to do the mailing round. Nevertheless, the organisation would need to employ someone who understand Information Technology to ensure that the IT system works perfectly, someone also needs to ensure that the IT security is not compromised, someone needs to train staff on how to use the software etc.

Obviously, while certain jobs in an organisation are becoming obsolete, new IT based and IT support services jobs are being created. It is advisable therefore that job seekers must follow the trend and develop themselves in line with requirement of modern transiting organisations.

Discussion of findings

The adoption of virtual communication by Shell Petroleum Development Company, Port Harcourt suggest that there is a movement from office centred work to space centred. In other words, workers are no longer restricted to a certain space before they can deliver on their key performance indicators. This is in line with the submission of Grenier and Metes (1995, p.3) who stated that:

We have all seen the human subjects encased in gloves, helmets, recliners and other sorts of technological wombs, participating in activities they electronically constructed, feeling as if they are physically involved in real, intense situations...today our virtual travellers fly jet aircrafts, crawl through human cells, walk on the moon, or stroll through Bangkok with full (or greater) sensory apprehension of time, place, and motion. The effects of reality are felt, although the usual physical causes have been replaced by electronic simulations and stimulations.

The reality today is that communication technologies now help organisations reduce their overhead cost and become more and more effective. It has led to the emergence of mobile personalities highly open to change. The vogue now is that workers travel with their systems and ipad so that they can respond to enquiries without necessarily been in the office. This is because the introduction of SkyDrive to the myriad of communication technologies, help one to access all the files in one's system from any system in the world provided the system has SkyDrive facility. The interview conducted show that the adoption of communication technologies in SPDC was desirable because according to them, it had positive effect on their jobs. This counter the usual fear that the adoption of technologies often lead to job loss, the organisation as Okoye noted constantly send people on training to ensure that they catch up with the ever changing communication technologies. No doubt, because virtualisation reduces the number of persons required to do specific tasks, virtualisation also

creates new kind of jobs.

This position tallies with the view of World Bank policy note published in the Washington post of September 10, 2013, information and communication technologies are creating new job opportunities and making labor markets more innovative, inclusive and global. It also tallies with the views of **Chris Vein, World Bank Chief Innovation Officer for Global ICT Development** who said that *“ICTs are influencing employment both as an industry that creates jobs and as a tool that empowers workers to access new forms of work, in new and more flexible ways,”* he further said that *“The emerging ICT-enabled employment opportunities matter because countries around the world are looking to create more good jobs, which have positive economic and social implications for workers and for society.”*

The argument that virtual communication technologies is taking away jobs unfortunately is strongest in Third World countries because most of us are not bracing up to the challenges. Some workers are stock in the old way while virtual communication technology is creating new kind of jobs.

Conclusion

Virtual Communication Technologies are providing new avenues for job creation that could help tackle global unemployment. For instance, the development of the mobile phone applications industry has created new opportunities for small- and medium-sized enterprises (SMEs). A firm that provides a digital application to the Apple app store, for example, gains access to over 500 million app store account holders. Virtual Communication Technologies create opportunities, but also pose new challenges for workers and employers. By enabling new forms of work, Virtual Communication Technologies also change the structure of jobs, the way people develop their career, and the way they work. No doubt, a lot of people lose their jobs when the organization adopts virtual communication technologies but it is important to note that most of the people who lose their jobs are people who have failed to change the way they do their jobs. Virtual communication technologies provide the worker with newer, better and most times safer ways of doing the same job. Cairncross (2002, p.19) states that the greatest benefits from the new technologies will come to only companies that change their structure to accommodate them. In the same vain, only individuals that change and understand the current structures of virtualization will be able to keep their jobs.

Recommendations

1. That Shell Petroleum Development Company, and indeed organisations that have adopted virtual communication technologies, should make deliberate efforts at ensuring that they promote interpersonal communication amongst employees.

2. That Shell Petroleum Development Company should make deliberate efforts to carry members of the public along in their virtualisation plan.
3. That Shell Petroleum Development Company and all organisations planning to adopt virtual communication, should take time and consider all the risks involved and make proper planning on protecting herself from hackers, viruses and all other dangers.

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