

**NEXUS OF CHANGE MANAGEMENT ON ORGANISATIONAL PERFORMANCE
AND SURVIVAL IN NIGERIAN UNIVERSITIES
(A CASE STUDY OF UNIVERSITY OF ILORIN)**

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ABSTRACT: *Most business managers have seen change becoming a regular aspect of organizational life and they must constantly monitor and respond to these changes appropriately. The overriding goal is to optimize the output of the people involved in this process and reduce the risk of failure in achieving the desired change. Change management is usually seen from an organizational context and refers to the process of developing a planned approach to change in an organization. Business environment has become much more turbulent, uncertain and demanding change is inevitable in an organisation. Business operates in a dynamic environment and organisation that fails to recognise the inevitability of change is doomed to fail. This paper is designed to examine the nexus of change management on organisational performance and survival in Nigerian universities using University of Ilorin as a case study. Both primary and secondary sources of data constitute the main source of data gathering. Random sampling technique was used in selecting the sample size. Regression analysis was used to analyse the data obtained and the testing of one hypothesis formulated. The results obtained reveal a strong negative relationship between changes introduced through Computer Based Test in the University. This research recommends that before embarking on any change, the university should attempt to maintain useful customs and informal relationship, build trust, encourage participation, provide information in advance, make only necessary changes, guarantee against loss, provide counselling, allow for negotiation between the University Management and the staff and students.*

KEYWORDS: *Change Management, Transformation, Computer Based Test, Counselling, Participation, Negotiation.*

INTRODUCTION

There is an age long maxim that change is the only thing that is permanent. Yet people are often resistant to change. Change can come in different forms. It can be witnessed in fortune, status, relationship, finances or even leadership. Change is a regular aspect of organisational life and they must constantly monitor and respond to these changes appropriately. Organisations are characterised by considerable inertia forces that impede organisational adaptation to new market realities. The failure of organisations to adapt rapidly to new markets realities is a major course of corporate decline. It is easy to say that change is an inevitable fact of life but when the change does come, most people resist. This apparent paradox has led to the emergence of change management as one of the very important management competencies. Unfortunately, the global business environment is growing more dynamic by the day making change inevitable. Planning, implementing and managing change in a fast-changing environment is increasingly the situation in which most organisations now have to work.

Change Defined

- Change is defined as the transformation in patterns of organisational activity.
 - Change has also been defined as modification of those forces keeping a system’s behaviour stable.
 - Change can be seen as an overhaul of both internal and external environments of an organisation.
 - Organisational change is any alteration of people, structure or technology.
- Change is any modification or alteration of the status quo, and which sometimes in resistance from those who are encountering the change (Inyang 2004).

From the foregoing, one finds that organisational change involves a shift from the usual mode of organisational activities towards another that is adjudged to be more suitable and efficient. This means that here exist a new set of attitudes, behaviour, technology and organisational arrangement. Entrepreneurs and managers should not the various elements in the organisation are immediately faced with new wave of change.

Forces for Change

As stated by Robbins and Cutler(2007), there are two forces for change namely: external and internal forces:

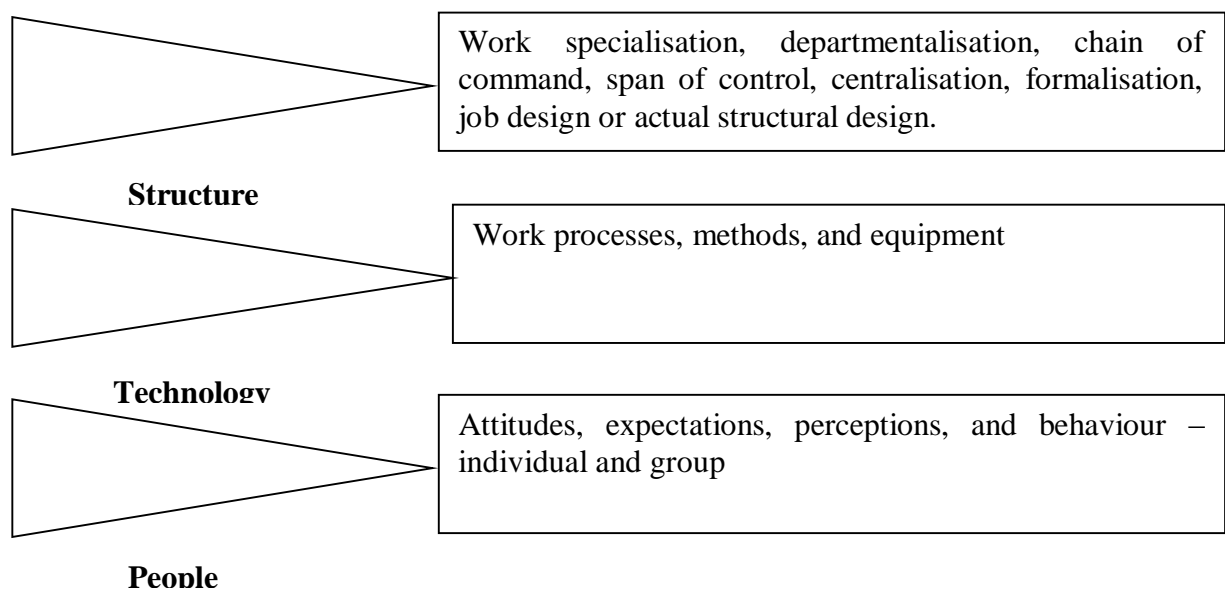
External Forces: The external forces that create the need for change come from various sources such as the marketplace, government laws and regulations, technology, fluctuation in labour markets and economic changes as global economic pressures force organisations to become more cost efficient.

Internal forces also create the need for change. They are a redefinition or modification of an organisation’s policy, strategy, dynamic organisation workforce in terms of age, education, ethnic background, sex etc; the introduction of new equipment and employee attitude such as job dissatisfaction may lead to increased absenteeism, more voluntary resignations, and even labour strikes.

Types of Change

There are three types of change: Structure, technology and people.

Figure 1: Three Categories of Change



Changing structure includes any change in structural variables such as reporting relationships, coordination mechanisms, employee empowerment, or job redesign. Work specialisation is the act of dividing work activities into separate job tasks.

Departmentalisation is the basis by which jobs are grouped together either on the basis of function, process, products, customers etc.

Chain of command is the line of authority extending from upper organisational levels to the lowest levels, which clarifies who reports to whom.

Span of control is the number of employees a manager can efficiently and effectively manage.

Centralisation is the degree to which decision making is concentrated at upper levels of the organisations.

Formalisation is how standardized an organisation's job are and the extent to which employee behaviour is guided by rules and procedures.

Job redesign is the way tasks are combined to form complete jobs.

Changing technology encompasses modifications in the way work is performed or the methods and equipment that are used. Managers can also change the technology used to convert inputs into outputs. Scientific management sought to implement changes that would increase production efficiency based on time-and-motion studies. Today, technological changes usually involve the introduction of new equipment, tools, or methods, automation or computerisation. Changing people refers to changes in attitudes, expectations, perceptions and behaviour of individuals or groups.

Why People Resist Change

Sources of Resistance to Change

Individual Sources

Habit: To cope with life's complexities, we rely on habits or programmed responses. But when confronted with change, this tendency to respond in our accustomed ways becomes a source of resistance.

Security: People with a high need for security are likely to resist change because it threatens their feelings of safety.

Economic factors: Changes in job tasks or established work routines can arouse economic fears if people are concerned that they won't be able to perform the new tasks or routines to their previous standards, especially when pay is closely tied to productivity.

Fear of the unknown: Change substitutes ambiguity and uncertainty for the unknown.

Selective information processing: Individuals are guilty of selectively processing information in order to keep their perceptions intact. They hear what they want to hear and they ignore information that challenges the world they've created.

Organisational Sources

Structural inertia: Organizations have built-in mechanism – like their selection processes and formalized regulations – to produce stability. When an organization is confronted with change, this structural inertia acts as a counter balance to sustain stability.

Limited focus of change: Organizations are made up of a number of interdependent subsystems. One can't be changed without affecting the others. So limited changes in subsystem tend to be nullified by the larger system.

Group Inertia: Even if individuals want to change their behaviour, group norms may act as a constraint.

Threat to expertise: Changes in organizational patterns may threaten the expertise of specialized groups.

Threat to established power relationships: Any redistribution of decision making authority can threaten long-established power relationships within the organization.

Threat to established resource allocations: Groups in the organization that control sizable resources often see change as a threat. They tend to be content with the way things are.

Managerial Actions to Reduce Resistance to Change

Education and Communication

- Communicate with employees to help them see the logic of change.
- Educate employees through one-on-one discussions, memos, group meeting, or reports.
- Appropriate if source of resistance is either poor communication or misinformation.
- Must be mutual trust and credibility between managers and employees.

Participation

- Allows those who oppose a change to participate in the decision.
- Assumes that they have expertise to make meaningful contributions.
- Involvement can reduce resistance, obtain commitment to seeing change succeed, and increase quality of change decision.

Negotiation

- Exchange something of value to reduce resistance.
- May be necessary when resistance comes from a powerful source.
- Potentially high costs and likelihood of having to negotiate with other resisters.

Manipulation and Co-optation

- Manipulation is concert attempts to influence such as twisting or distorting facts, withholding damaging information, or creating false rumours.
- Co-optation is a form of manipulation and participation.
- Inexpensive and easy ways to gain support of resisters.
- Can fail miserably if targets feel they've been tricked.

Selecting People Who Accept Change

- Ability to easily accept and adapt to change is related to personality.
- Select people, who are open to experience, take a positive attitude toward change, are willing to take risks, and are flexible in their behaviour.

Coercion

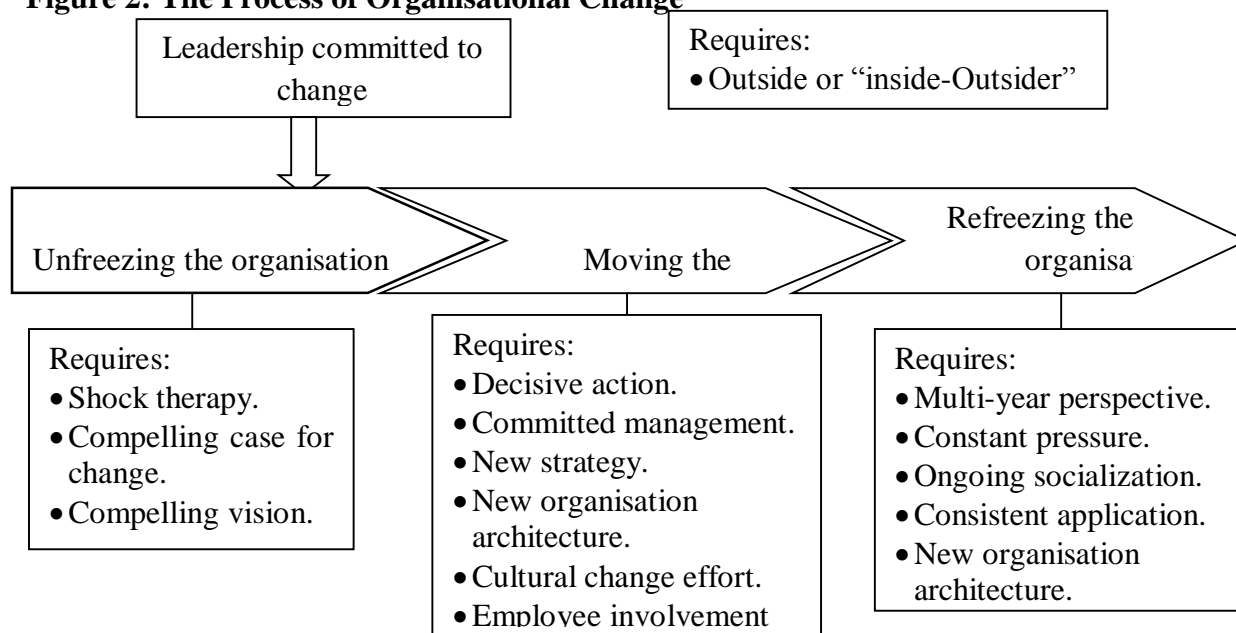
- Using direct threats or force.
- Inexpensive and easy way to get support.
- May be illegal. Even legal coercion can be perceived as bullying.

Organisation Change Process

There are four steps in a successful organisational change process: leadership committed to change, unfreezing the organisation, moving the organisation toward a new strategic and organisational configuration and refreezing the organisation in its new configuration.

Leadership Committed to Change

Organisations cannot change unless their leaders recognise the need for change and are committed to pushing it through. The shared cognitive schemata of a leadership group might be a source of inertia, causing failure to recognize the need for change. In many cases change is reactive instead of proactive because leaders are unable to recognise quickly enough that change is necessary and are pushed to accept reality by declining financial performance.

Figure 2: The Process of Organisational Change

Source: Hill-Mcshane (2009) Principles of Management Great Britain: McGraw Hill.

When managers decide to institute radical change, they often turn to an outsider who does not share their ideas and cultural values. A leader who is committed to organisational change not only recognizes the need for change and can communicate this eloquently to employees, motivating them to support the change effort but also “walk the talk”. They are personally committed that they were serious about the change. They led by example.

Unfreezing the Organisation

Unfreezing an organisation involves confronting all employees with the need for change and getting them to believe that change is necessary. Because organisations are by nature static, attempt at incremental or gradual change will usually be successfully resisted by those within the organisation who stand to lose from the change effort. Thus many experts recommend bold, dramatic action to signal to employees that change is coming. What is needed is something akin to shock therapy. For instance, poor standard of education provides the necessary shock and that decline is inevitable unless institution changes its ways. The awful result as a result of educational survey may be used to push for change.

To convince all stakeholders in the educational sector of the need for change, leaders may have to draw on all their communication abilities. They need a compelling message that tells stakeholders why change is necessary, along with a credible strategic vision for the firm, and they must deliver that message and vision in an eloquent manner so that it resonates among employees. Sometimes bold symbolic action may also help awaken employees to the need for change.

Moving the Organisation

Moving an organisation entails changing management, strategy, resource allocation, asset disposals, significant reengineering of the organisation architecture, and employee behaviour. Movement requires action often the idea is to clarify who is responsible for what within an

organisation and to push down responsibility and accountability, stripping away unnecessary layers of management. Changes in organisation architecture also disturb the distribution of power and influence within a firm, breaking the hold of those who are trying to protect the status quo.

At the heart of many organisational change efforts is an attempt to shift the culture of the enterprise by rewarding people who manage according to the new values, letting go those who do not, and hiring people who support the new values rather than the failed culture. In addition, leaders often introduce systematic employee development programs aimed at socializing employees into the new culture. A critical component of many change efforts is involving employees in the change process, thereby giving them a sense of ownership.

Refreezing the Organisation

Refreezing an organisation involves trying to solidify the new strategy and architecture of an organisation so that the desired employee behaviour becomes second nature. Trying to alter an organisation's culture is difficult because culture includes deeply held and persistent shared values. Refreezing an enterprise in a new strategic and organisational configuration requires years of effort, constant attention and pressure. Leaders within the organisation must stay on message have to foster the desired behaviour and reward managers and employees who perform well while acting in a manner that is consistent with the values and norms of the new culture. Ongoing attention is required for hiring and employee development policies.

Failed Change Efforts and Secrets of Success

According to Kotter (1995) there are eight errors that leaders often make when implementing a change effort.

1. Failure to establish a great enough sense of urgency. In other words, they do not create a sense of crisis that startles employees out of their comfort zone.
2. Many leaders do not create a powerful enough guiding coalition to push through the change as they do not understand the importance of power and the fact that many incumbent managers can be a source of inertia.
3. Many change efforts fail because the leader lacks a compelling vision that tells employees what the organisation is trying to achieve by its change effort.
4. The leader may have a vision, but the vision may be poorly communicated. According to Kotter, many managers do not understand the need to communicate the vision consistently, often over a period of years, and to make sure it is heard by employees at all levels in the organisation.
5. Leader's failure to remove obstacles to the change effort. The obstacles may include managers who are unable or unwilling to buy into the new culture or an organisation architecture that continues to foster old habits. Change efforts that fail to remove obstacles are cosmetic because the leaders have failed to change either the balance of power within the organisation (shifting it away from managers who have avested interest in maintaining the status quo) or an organisation structure that reinforces the status quo.
6. Transformation efforts can fail due to a loss of momentum. Kotter sees the biggest error here as not planning for and creating short term wins. People need to see evidence that the change effort is working or they will fail to believe that change is possible and revert to the old ways of doing things. They need feedback to convince them that the change effort is making progress.

7. Declaring victory too soon. Successful change efforts can take years, to materialise, and persistence is required. If leaders declare victory too soon, the pressure for improved performance is released, and employees might slide back to the old way of doing things.

8. Change fails when it is not anchored in the organisation's culture without cultural change (change in the values that guide behaviour in the organisation) managers and employees revert to the old culture, and the change effort will not take.

Another important reason for failed change efforts is failure to empower employees and lower-level managers to implement the change (Labianca and Gray 2000) A critical element of driving change efforts is to give employees a sense of ownership to give them power to push through changes. Change is not something you drive just from the top but it must also be from the bottom as employees far down in the organisation can be greatest allies of senior managers.

So what is required to make a change effort work? In summary, change demands leaders who are committed to the change effort, who can create a sense of urgency, who conform a powerful guiding coalition to push through the change, who can craft a compelling vision for the organisation to strive toward, and who can successfully and persistently communicate that vision to all within the organisation. Also required are quick and decisive changes in management and organisation architecture to remove obstacles to change (to neutralize inertia forces). Managers should also arrange short-term wins to keep the momentum going managers should also develop and implement processes that empower employees by enlisting them in the change effort. Finally, they must not only push the culture of the organisation in a new direction but also institutionalize that culture by creating supporting reward and incentive systems, hiring the right people, and socialising employees into the culture through training and development programs. Moreover, they must do this consistently and persistently for years to stabilize the change. (Hill-Mcshane 2009).

Change Management Principles

1. At all times involves and agree support from people within system (System = environment, process; culture, relationships, behaviour, etc., whether personal or organisational).
2. Understand where you/the organisation is at the moment.
3. Understand where you want to be, when, why, and what the measures will be for having got there.
4. Plan development towards above No. 3 in appropriate achievable measurable stages.
5. Communicate, involve, enable and facilitate involvement from people, as early and openly and as fully as is possible.

Kotter's Eight Steps of Successful Change

Kotter's Eight Step Change can be summarised as:

1. **Increase urgency:** Inspire people to move, make objectives real and relevant.
2. **Build the guiding team:** Get the right people in place with the right emotional commitment, and the right mix of skills and levels.
3. **Get the vision right:** Get the team to establish a simple vision and strategy focus on emotional and creative aspects necessary to drive service and efficiency.
4. **Communicate for buy in:** Involve as many people as possible. Communicate the simply, and to appeal and respond to people's needs decilitre communications make technology work for you rather than against.

5. **Empower action:** Remove obstacles, enable constructive feedback and lots of support from leaders – reward and recognise progress and achievements.
6. **Create short-term wins:** Set aims that are easy to achieve – in bite-size chunks. Manageable numbers of initiatives. Finish current stages before starting new ones.
7. **Don't let up:** Faster and encourage determination and persistence ongoing change – encourage ongoing progress reporting – highlight achieved and future milestones.
8. **Make change stick:** Reinforce the value of successful change via recruitment, promotion, and new change leaders. Weave change in to culture.

Common Change Management Pitfalls

Respondents cite the following indicators as demonstrating inadequate change management or potential pitfalls to be avoided. Some of these suggest the need for further study, such as how to measure capacity for change, how to evaluate appropriateness of risk-taking, and how to model compatibility or difference in corporate culture.

1. Poor communications (e.g., of goals, methods, motives, commitment), Unclear rationale for change
2. Lack of understanding of the urgency of change
3. Inadequate employee mobilization and engagement
4. Lack of courage and risk-taking (may cause change to fail by default)
5. Complacency (resistance to change because of prior success)
6. Too many initiatives at one time, overloading change management capacity.
7. Mixed messages from top and middle management.
8. Short-term thinking and lack of follow-through, especially in long-term initiatives
9. Changed or diminished priorities; lack of focus
10. Cultural mismatch in mergers and acquisitions that seek to blend two contrasting cultures
11. Lack of leadership support, commitment, or modelling behaviour
12. Poor market analysis; poor planning
13. Underestimation of barriers; lack of due diligence

Prospects and Challenges of Computer Based Test in the Conduct of Examination in University of Ilorin

The entire computer based test process has its strengths and weaknesses. However, this section is divided into three categories, namely prospects, challenges of CBT in the conduct of examination in Nigeria and strategies for policy makers:

Prospects of CBT in the Conduct of Examination in Nigeria

CBT have advantages over PPT testing, both for states that run the assessment programs and for the students who participate in them. These advantages are recognized by the U.S. Department of Education, which is one of its major initiatives (Race to the Top Assessment Program), encouraged the development of CBT (Thurlow et al., 2010). However, advocates of CBT have identified many positive prospects of this approach to assessment as follows:

- i. More efficient than paper-based tests
- ii. Year-round testing
- iii. Flexible scheduling
- iv. Individualized testing environment
- v. Faster score reporting, within approximately two weeks of testing
- vi. Immediate viewing of scores on screen
- vii. Convenient to undergraduates, graduates, and the larger university community
- viii. Ability to access all tests that are demanded by students and the community at large
- ix. Worldwide testing opportunities for distance and travelling students
- x. Local and centralized registration and billing systems
- xi. Enhanced consistency and security

Challenges of CBT in Nigeria

Computer Based Test is still a new phenomenon in Nigeria. However, CBT in the conduct of examination in Nigeriaposes a lot of challenges. These challenges have been categorised into ten factors for clarity and proper presentationbelow:

Economic factor: ICTs remain a low financial priority in most educational systems in Africa. Most countries in theregion lack resources for a sustainable integration of ICTs in education (Evoh, 2007; cited by Adomi and Kpangban,2010). This has made it difficult for Nigerian educational system to acquire and install ICT facilities for the use of teachersand students. Nigeria has over 6,000 public secondary schools. Majority are short of books, paper and pencils. Many ofthe schools lack adequate infrastructure such as classrooms and only few are equipped with television or radio. Apartfrom the basic computers themselves, other costs associated with peripherals such as printers, monitors, paper, modem,and extra disk drives are beyond the reach of most schools in Nigeria. The schools cannot also afford the exorbitant internetconnection fees (Aduwa-Ogiegbaen and Iyamu, 2005). Therefore, public budgets do not permit significant provision forthese initiatives.

Security factor: Existing biometric and non-biometric e-examination system involved sending examinationquestions to the e-exam centre from the examination bodies, where operator will then enter the questions into thesystem. The biometric system consists of picture box and fingerprint scanner that collect the biometric data of thecandidates (Olawale and Shafi'i, 2010). But due to the transferring of the question involved, the security of the system isat risk. There may be a higher risk of (e-) cheating, e.g. by hacking the database of the question items, a risk of total lossof examination data or a lower security of sensitive personal data (Olumorin et al., 2013) is inevitable.

Poor ICT culture, policy & implementation: The ICT revolution is yet to attain that critical mass required for it toregister the necessary impact in the teaching, student and civilian population nationwide. Whilst Obafemi AwolowoUniversity (OAU), University of Jos (UNIJOS), and the Federal College of Education in Omoku could be said to be in thevanguard, the majority of Nigeria's universities, polytechnics, nursing and midwifery schools, and colleges of educationlack computers (Osei, 2007).

The absence of policy has not helped co-ordinate ICT projects and programmes being carried out separately byvarious agencies operating in the education sector, and will lead to resource wastage and duplication (Osei, 2007). TheNigerian Federal Government's 1988 policy introduced computer education to the high schools (Okebukola, 1997; citedby Adomi and Kpangban, 2010). The only way this policy was implemented was the distribution of computers to federalgovernment high schools, which were never used for computer education of the students. No effort was made todistribute computer to state government or private schools.

Poor ICT funding: E-learning and ICT application to education in general may come of age in Nigerian schools.Schools in Nigeria are not given adequate funds to provide furniture, requisite books, laboratories and adequateclassrooms let alone being given adequate funds for high-tech equipment (computers) and Internet connectivity (Aduwa-Ogiegbaen&Iyamu, 2005). Many of the lecturers in these public institutions have to go to commercial cyber cafés beforethey can have access to a computer. The private universities are better off since majority of them, such as the ABTIAmericanUniversity of Nigeria (AAUN) has 24-hours Internet connectivity on campus, and each student is provided alaptop with the cost factored into the fee structure (Osei, 2007).

Poor information infrastructure: The lack of requisite telecommunications infrastructure capable of transporting multimedia messaging (Osei, 2007) is another major challenge. Research confirms that one among the impediment to the use of ICT in Nigerian school is poor information infrastructure. It has been reported by South-wood (2004) cited by (Adomi and Kpangban, 2010) that more than 40% of the population of Africa is in areas not covered by telecom services. Schools located in such areas will experience ICT connectivity problems.

Power failure: The lack of electric power and telecommunications infrastructure in a considerable part of the country is a problem. Mobile telecommunication currently covers 60% of the national territory, but mobile telephone companies generally power their base stations using private electric power generators since the Power Holding Company of Nigeria (PHCN) is unable to guarantee supply of power. This phenomenon is prevalent nationwide and constitutes the bottleneck to effective countrywide deployment of ICT in education (Osei, 2007).

Computer equipment was made to function with other infrastructure such as electricity under “controlled conditions”. For the past fifteen years, Nigeria has been having difficulty providing stable and reliable electricity supply to every nook and cranny of the country without success. Currently, there is no part of the country, which can boast of electricity supply for 24 hours a day except probably Government Reserves Areas. In rural Nigeria, most inhabitants do not have access to electricity, thereby denying rural schools opportunity to benefit from the use of electronic equipments such as radio, television, video recorders and computers. The few Internet access available in Nigeria is found in urban centres. These environmental realities are difficult to manage because stable electricity are lacking in many urban homes and rural areas (Aduwa-Ogiegbaen and Iyamu, 2005).

Inadequate ICT manpower/skills: Nigeria does not only lack information infrastructure, it also lacks the human skills and knowledge to fully integrate ICT into secondary school education. There is acute shortage of trained personnel in application software, operating systems, network administration and local technicians to service and repair computer facilities. Those who are designated to use computers in Nigeria do not receive adequate training, and at worst, do not receive any training at all (Okebukola, 1997; Anao, 2003; cited by Aduwa-Ogiegbaen and Iyamu, 2005). Most of the school teachers lack the skills to fully utilize ICT in curriculum implementation hence, the traditional chalk and duster approach still dominates in secondary school pedagogy. Information transfer using ICT is minimal or non-existent in secondary schools in Nigeria.

Software factors: There is no doubt that the ultimate power of technology is the content and the communication. Software developers and publishers in the developed countries have been trying for long to develop software and multimedia that have universal application, due to the differences in education standards and requirements. However, these products do not integrate into curriculum across countries. Salomon (1989) cited by Aduwa-Ogiegbaen & Iyamu (2005) stated that there are clear indications from many countries that the supply of relevant and appropriate software is a major bottleneck obstructing wider application of the computer. Even if Nigeria tries to approach this software famine by producing software that would suit its educational philosophies, there are two major problems to be encountered. First, the cost of producing relevant software for the country’s educational system is enormous. Second, there is dearth of qualified computer software designers in the country.

Gender equity: Nigeria is confronted with a persistent problem in girls’ education, principally in the northern and rural areas, because of traditional beliefs and roles reserved for girls in the family and religious set-ups. This has prompted government to embrace gender equity

programmes in education. However, school enrolment disparities stillexist in the rural and northern areas (Osei, 2007). Students with insufficient computer literacy or differences in computerperformance may be disadvantaged despite their expertise/understanding in the course content (Charles et al., 2013).

Accessibility to the internet: In Nigeria there are few Internet providers that provide Internet gateway services toNigerians. Many of these internet providers (i.e. companies) provide poor services to customers who are often exploitedand defrauded. The few reputable companies which render reliable services charged soaring fees thus limiting access tothe use of the Internet. The greatest technological challenge in Nigeria is how to establish reliable cost effective Internetconnectivity. In a country where only about 0.6% of the populace has home personal computers, the few reliable Internetproviders who have invested huge sum of money in the business have a very small clientele. They have to charge highfees in order to regain their investment in reasonable time. Also, secondary schools in rural areas lack access to internetfacilities due to adequate electricity supply. Nigeria is lagging behind other African countries such as Senegal, Ugandaand South Africa who are already helping secondary school students to become better information users. Worst still, allInternet service providers in Nigeria are based in the urban areas (Aduwa-Ogiegbaen and Iyamu, 2005).

METHOD OF DATA ANALYSIS

Primary data through the use of questionnaire was distributed to 250 made up of 200 students and 50 staff of the University.The questions in the questionnaire cover the following areas: (1) Funding (2) Awareness (3) Participation. (4) Leadership Style (Autocratic)/Sustainability(5) Training (Staff/Students)(6) Motivation(Staff/Students)/Sitting Arrangement(7) Internet Connectivity (8) Building/Furniture and(9) Acquisition of Computer Peripherals. The sample size of 250 was selected through the use of random sampling technique from various faculties (Arts, Social Sciences, Sciences, Engineering, and Agriculture) in the University. The data collected was analysed using the parametric statistical technique, such as Spearman Rank order correlation and Pearson's product-moment correlation to test the formulated hypothesis. Using the coefficient of correlation to test the relationship that exists between the variables e.g

- i. Spearman's Rank order correlation
- ii. Pearson's product-moment correlation

Data Presentation and Analysis

This section tries to analyse and interprets the data based on the responses of the respondents that were served with the questionnaires.

It is imperative to re-emphasize that the adopted statistical method is well amenable to the evaluation of the data. This assures the correct reconciliation of the findings of the research with the stated hypothesis which the research aimed at achieving.

Using Spearman's Rank Order Correlation, denoted as ρ (rho) and defined by the formula:

$$P = 1 - \frac{6\sum d^2}{n(n^2-1)}$$

ρ = rho rank correlation

d = difference between corresponding ranks

n = number of observations

Hypothesis Testing

The null hypothesis put forward for testing states as thus:

H_0 : Lack of awareness, involvement and engagement of staff and students in introducing change contributed significantly to the negative attitude to Computer Based Test in the University.

In testing this hypothesis, both the Spearman Rank Order Correlation and the Pearson's Product-Moment Correlation were adopted as presented below:

Summary of Spearman Rank Order Correlation

Responses Yes	Responses No	Rank of Yes	Rank of No	Dif (d)	D ²
230	20	3	7	-4	16
45	205	8	2	6	36
130	120	6	4	2	4
180	70	5	5	0	0
50	200	7	3	4	16
30	220	9	1	8	64
210	40	4	6	-2	4
235	15	1	8	-7	49
235	15	1	8	-7	49
Total					238

Source: Field Work (2013)

By the application of the hither to stated, Spearman Rank Correlation we have:

$$\begin{aligned}
 P &= 1 - \frac{(6\sum d^2)}{n(n^2-1)} \\
 &= 1 - \frac{6(238)}{720} \\
 &= \frac{1428}{720} \\
 P &= 1 - 1.98 \\
 &= -0.98
 \end{aligned}$$

Therefore, there is a strong negative correlation between students and staff attitude in the introduction of Computer Based Test as a catalyst of change in University of Ilorin which means that students and staff attitudes are negatively inclined towards the introduction of Computer Based Test.

For the test of hypothesis

However, with $n = 9$, $df = (n - 1) = 8$ and at $(\alpha) = 0.05$ the critical value (as given on the Spearman Rank Order Correlation table) is 0.74.

Since $0.74 > -0.98$ (i.e the table value is greater than the calculated value), the hypothesis stands accepted. It was therefore concluded that lack of awareness, involvement and engagement of staff and students at the planning stage in introducing change contributed significantly to the negative attitude towards Computer Based Test in the University.

Using Pearson's Product Moment Correlation

Formular donated by:

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{[n\sum x^2 - (\sum x)^2] [n\sum y^2 - (\sum y)^2]}}$$

This when applied it gave the computations shown below:

Summary of Pearson's Product Moment Correlation

No (x)	Yes (y)	X ²	Y ²	xy
20	230	400	52900	4600
205	45	42025	2025	9225
120	130	14400	16900	15600
70	180	4900	32400	12600
200	50	40000	2500	10000
220	30	48400	900	6600
40	210	1600	44100	8400
15	235	225	55225	3525
15	235	225	55225	3525
$\Sigma x = 905$	$\Sigma y = 1345$	$\Sigma x^2 = 152175$	$\Sigma y^2 = 262175$	$\Sigma xy = 74075$

Source: Field Work (2013)

$$r = \frac{n\Sigma xy - \Sigma x \Sigma y}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2] [(n\Sigma y^2 - (\Sigma y)^2)]}}$$

$$r = \frac{9(74075) - 1217225}{\sqrt{9(152175 - (905)^2)(262175 - 1345^2)}}$$

$$r = \frac{666675 - 1217225}{\sqrt{1369575 - 819025 \cdot 2359575 - 1809025}}$$

$$r = \frac{-550500}{\sqrt{550550 \cdot 550550}}$$

$$r = \frac{-550500}{550550} = -0.999$$

$$r = -0.999$$

This result further confirmed that a very strong negative relationship exists between changes introduced through Computer Based Test in the University.

CONCLUSION AND RECOMMENDATIONS

Computer-based testing (CBT) is an efficient way for test sponsors to provide a secure, consistent environment for certification and licensure while significantly enhancing the candidate experience. It is common for testing volumes to increase after a full conversion from PBT to CBT, often as a result of the availability of a greater number of testing locations and more flexible scheduling and testing opportunities. Migration from PBT to CBT does affect candidate behaviour and it is possible for some testing programs to experience brief reductions in demand triggered by candidate apprehension regarding CBT. CBT stifles self-expression on behalf of the students while it is time-consuming and energy-sapping on behalf of the staff to set sufficient questions that can go round not unlike the PBT that only requires a maximum of six essay questions or 30 to 100 multiple-choice questions or short-answer questions. This sometimes results in either a last-minute increase in testing during final PBT administrations or candidate procrastination to the last available computerized testing date. Therefore, the question facing licensing organizations is how to keep test volumes up and candidate uncertainty down when migrating from a PBT to CBT. The key to mitigating test volume risk and ultimately driving an increase in demand is ongoing marketing, candidate education and outreach. In terms of promoting the new computerized testing program, marketing and effective communication can have a significant impact on stakeholder acceptance of CBT and comfort with its use. In order to allay candidate fears and minimize questions, it is prudent to launch a communications campaign early in the conversion process that directly addresses constituent concerns and promotes sustainable program interest.

Some of the more commonly utilized and effective candidate communications outreach initiatives include:

Adequate Educational Presentations on CBT: Educational presentations should focus on information regarding the benefits of CBT for testing candidates. They may present information on new content areas, changes in test structure or format, system navigation, and other program changes (e.g. test duration, question review, break policies). They may also give candidates a glimpse of the new "look and feel" of the test. Presentations or demonstrations may be given at conferences, user group meetings or other relevant forums, as well as via other mediums such as via a web conference.

Public Relations Campaign: A targeted public relations program will strive to promote the value of computer-based delivery and benefits to candidates, such as same-day exam scoring or on-demand scheduling. The campaign may include media relations, speaking opportunities and special events components.

Website Campaign: A website campaign may include a webcast explaining and demonstrating any differences between paper-based and computer-based testing. It could explain to candidates a sample of CBT showing them where and how to navigate through the exam and familiarizing them with the layout and content. The campaign may also include a tutorial on new operational procedures associated with the CBT program, including registration and scheduling processes and site administration policies.

A "Test Drive" Tutorial: Test drive provides candidates with a real world, end-to-end practice run before the date of their scheduled test. In 30 minutes, the candidate will experience a complete run of the testing experience they will encounter on their actual testing day. During the test drive, the candidate will experience the scheduling and registration process, walk-through the site check-in procedures, meet the test center staff, familiarize himself or herself

with the physical location and environment at the test center, and sit for a live 15-minute sample test with generic content. The goal of this program is to familiarize candidates of certain types of testing programs with the end-to-end CBT testing process prior to the day of administration, allowing the candidate to focus all of his or her attention on demonstrating mastery of the subject matter of the test.

Testimonials: Testimonials and "lessons learned" from other candidates who've already had the experience can be passed along to promote the benefits of the new test from candidate, partner or administrator perspectives.

Post-test Feedback: A post-launch survey of test takers can be used to improve future versions of the test and associated test administration processes. The survey can be executed via the Internet immediately following the test, via telephone or mail or via test candidate focus groups. Candidates may provide feedback on any of the following: registration, scheduling, site administration, security, content, navigation, functionality, score reporting, fees and overall satisfaction.

Regular power supply: Government should work towards stabilizing electricity supply in Nigeria by encouraging more private partnership in the power business.

Implementation of ICT Policy: The government should ensure that the national ICT policy objectives are translated into reality and also set up a committee that will be headed by the Minister of Communication Technology to monitor the implementation. The policy should ensure that effort has been made to distribute computer to state government and selected private schools.

Adequate ICT Training: Adequate ICT training and awareness should be given to the students and staff prior to the period of e-testing. Secondary school teachers in Nigeria need to be trained on educational technologies as well as trained workers that will install, maintain and support these systems. People need to be trained in instructional design to overcome the challenges in the area of dearth of qualified computer software designers in the country.

Taking any or all of these steps to reach out to candidates in advance of a newly computerized test is critical to easing the transition. The main goal of each of the initiatives above is to keep candidates informed.

Change provides us with potential opportunities, but to capitalise on these opportunities we need stability which entails:

- **A Sense of Direction:** A common understanding of why we are in business and what we are trying to accomplish.
- **Core Values:** Basic beliefs about what is important enough to sacrifice for.
- **Ways to Work Together:** Ground rules and processes for how we will cooperate to achieve results.
- **Continuous Growth and Learning:** A commitment to learning from experience.

These sources of stability provide us with a "home base" from which we can explore new worlds and find alternative ways to succeed, while retaining and building upon core strengths from the past. (Atkinson 1995). Change managers should realise that effective change management has an individual and organisational perspectives. It is also important understand the emotion and psychological implication of the change of the organisation's people. It is this empathy that will eventually elicit the people's buy-in.

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