

ISSN : 2229-4104

# **Asia Pacific Journal Of Research In Business Management**

**VOLUME NO. 15**

**ISSUE NO. 1**

**JAN- APR 2024**



**ENRICHED PUBLICATIONS PVT. LTD**

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(Volume No. 15, Issue No. 1, January - April 2024)

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# Role Of Teacher's Words For Examples In Class Room

**Dr. Paras Jain**

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## **ABSTRACT**

*Teacher is an ideal person for students in Indian society. His knowledge, candidature, expressions, words have remarkable influence on students. Teacher's words, examples create an image in student's mind and students see the world according to view given by teacher. Present study is focused on finding of impact of teacher's word on different grade students.*

**Keywords: Teacher's, Words, Examples, Class Room**

### **1. Introduction**

Teachers hold a very special place in the lives of students. They play a very important role in shaping a student's future by guiding them in becoming ideal citizens of nation. Teacher's words have a huge influence on their students. This goes much deeper than the lessons they teach. A teacher's words can really stick with students for their entire lives. A teacher is role model who inspires and encourages students to strive for greatness, live to fullest potential and see the best in him. A great teacher makes learning fun, stimulating using inspiring examples. Use of improper words or examples may deviate direction of student's life.

Students are not only intellectual but also social and emotional beings, and all these dimensions interact to impact learning and performance. Teacher's words inspire their students and they can accomplish amazing things, and that motivation almost always stays with them. Inspiration can also take many forms, from helping a pupil through the academic year and their short-term goals, to guiding them towards their future career. It is the influence of teacher's words that students look to their teachers as mentors with experience and knowledge, and, as an educator asked for advice at some point during their career, difficult time and time to take important decision.

### **Objective Of Study**

- Finding of impact of teacher's words on middle school students
- Finding of impact of teacher's words on high school students
- Finding of impact of teacher's words on higher secondary school students

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## Hypothesis

1. There is no significant impact of teacher's words on middle school students
2. There is no significant impact of teacher's words on high school students
3. There is no significant impact of teacher's words on higher secondary school students

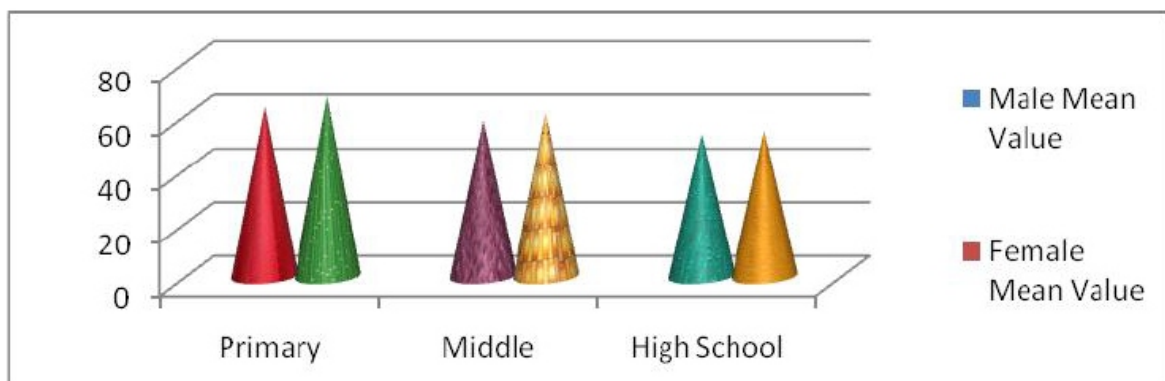
## Methodology

Descriptive survey method was adopted for present study. 100 middle, 100 high schools and 100 higher secondary school students were selected as sample. Gender wise ratio was 50% male and 50% female in each category. They were interviewed for finding impact of teacher's words as examples in class room using a self-prepared questionnaire. Collected data was tabulated and analyzed using mean, standard deviation and t value as statistical tools.

## Finding And Analysis

**Table: Impact of Teacher's words on Students**

Category	Male		Female		t Value
	Mean Value	Std. Deviation	Mean Value	Std. Deviation	
Primary	63	1.06	67	0.93	0.81
Middle	58	0.93	61	1.24	0.96
High School	53	0.71	54	1.08	0.84



**Chart: Impact of Teacher's words on Students**

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Data table shows that impact of teacher's words on primary male students is 63 while for female is 67 and calculated t value is 0.81 significant at 0.05 level. Thus hypothesis 1, there is no significant impact of teacher's words on middle school students is rejected.

Middle class male students show mean value 58 with standard deviation 0.93 and female show mean value 61 with std. deviation 1.24. Calculated t value is 0.96. Hence hypothesis 2, there is no significant impact of teacher's words on high school students is rejected.

Mean value for high school male students is 53 while for female students is 54. Calculated t value is 0.84. Therefore hypothesis 3, there is no significant impact of teacher's words on higher secondary school students is rejected.

### **Conclusion**

Teacher's impact on primary students is greater than middle students. Teacher's influence on girls is greater than boys. Use of inappropriate words is the sensitive issue hence; teachers should use restrained, balanced and academic words. Educators need to remember that they hold great power over students in their hands.

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# Effects Of Continuous Learning On Competence Development In Handling Change A Study Of Tonimas Nigeria Limited

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## **ABSTRACT**

*This study examined the effects of continuous learning on competence development in handling change in Tonimas Nigeria Limited. Primary data were obtained through distribution of copies of questionnaire 195 staff of fifteen (15) branches of Tonimas Nigeria Limited, while secondary data were obtained from textbooks, internet printout and journals. Chisquare test was used as statistical tool with the aid of spearman's rank correlation coefficient statistical tool (SPSS.20.0) on three null hypotheses. The three were rejected which indicated positive significant effect of independent variables on the dependent variable. The result revealed that a positive significant of continuous learning on competence development in handling change. The study concludes that dimensions of continuous learning at individual level, group level, and organizational level enhances competence development in handling change in Tonimas Nigeria Limited. One of the recommendations is that, managers in Tonimas Nigeria Limited should adopt continuous learning for skill acquisition.*

## **1. Introduction**

The issue of competence development in handling change demands continuous learning is a sine qua non because for competence in handling change is assured, learning must drive the development. Learning is the act of acquiring new or modifying and reinforcing existing knowledge, behaviours, skills, values, or preferences which may lead to a potential change in synthesizing information depth of knowledge, attitude or behaviour relative to the type and range of experience. The ability to learn is possessed by humans, animals, plants and some machines. Learning does not happen all at once, but it builds upon and is shaped by previous knowledge. To that end, learning may be viewed as a process, rather than a collection of factual and procedural knowledge. Learning produces changes in the organism and the changes produced are relatively permanent (Learning wikipedia). For Northedge (2007), Learning is gaining knowledge and the ability to express it is the way that is expected. Furthermore, human learning may occur as part of education, personal development, schooling, or training. It may be goal-oriented and may be aided by motivation. Among the factors affecting learning



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are divided into two internal and external. Within the external are heredity, status of students, and physical environment while within internal factors we have goals or purpose, motivational behaviour, interest, attention, drill or practice, fatigue, aptitude, attitude, emotional conditions, speed, accuracy and retention, learning activities, testing, and guidance.

However, the process of learning is a continuous process. We constantly learn, unlearn and relearn through our experiences. To express ideas, to inform people, to communicate, to create and so on, we need to learn. It is said that there are four levels of learning: The first level is unconscious incompetence. This is a stage where we do not know what we do not know. This means that we are not even aware of certain things in this universe. We have no awareness of the existence of certain kind of knowledge. The individual does not understand or know how to do something and does not necessarily recognize this. The second level is conscious incompetence. This means we know what we don't know. There are certain things which exist and which we are aware of, however, we consciously know for a fact that we don't know it. Though the individual does not understand or know how to do something, he or she does recognize this. The making of mistakes can be integral to the learning. The third level of learning is conscious competence. Here individuals were aware of the learning that has taken place. We know what we know. The individual understands or knows how to do something. Execution of the skill plays an important part in this learning process. It requires a lot of concentration. The fourth level of the learning process is unconscious competence. This means that we don't know what we know. Sometimes, we as individuals have had so much practice with a particular skill that it almost becomes our second nature. And this we can perform with utmost ease. As a result, the skill can be performed while doing other things as well. These skills may be taught to other individuals as well, depending upon how and when it was learned (personality development level of human learning by SUSHANT [www.personality-development.org](http://www.personality-development.org) retrieved on 28/05/2017). Continuous learning is the ability to apply strategies which support learning and the ability to adapt to change. We use this skill when we learn as part of regular work or from co-workers and when we access training in the workplace or off-site. On a personal level, continuous learning is about the content expansion of skills and skill-sets through learning and increasing knowledge. As life changes the need to adapt both professionally and personally is as real as the changes themselves on a professional level, continuous learning is about further expanding our skill – set in response to a changing environment and new developments. This is very important because we are called to respond to changes daily; for example, the introduction of computers in the workplace created a need for people to train on computers to complete task more efficiently. Continuous learning should be an important part of career development goals; on an individual level, on a group level and on the organizational level. Specific knowledge and skills become obsolete with time but learning is a permanent skill that will carry you throughout your career and beyond.

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Competence development in handling change in the other hand is having sufficient ability or skills acquired through the process of development in handling change. This competence is drawn from the learning process of becoming aware of lack of competence through the stage of skill building which will finally lead to developing mastery through long practice. At this stage of mastery, excellence in handling change is achieved through the process of continuous learning. According to Creasey (2017) an organization that faces constant demands to change and uses effective change management over and over with each new initiative may experience a fundamental shift in its operations. Sponsors begin to repeat activities that made the last change successful. Managers develop skills to support employees through the change. Employees see part of their job as navigating change. Each level in the organization will have internalized its role in change and developed the skills and knowledge necessary react to constant change. The organization has become ready and able to embrace change; it has developed change competency. Notwithstanding the numerous importance of continuous learning in handling change, it is obvious that workers do not deem it necessary that continuous learning in your area of specialization proffer competency. This incessant desire for competence has made it necessary to examine what is continuous learning and its effects on competence development in handling change.

### **Objective Of The Study**

The aim of this study is to examine the effects of continuous learning on competence development in handling change in Tonimas Nigeria Limited.

### **Research Questions**

Certain research questions formulated to get this work are:

- i) Does individual continuous learning have effect on competence development in handling change?
- ii) Does group continuous learning have effect on competence development in handling change?
- iii) Does organizations continuous learning have effect on competence development in handling change?

### **Hypotheses**

**H<sub>01</sub>:** There is no significant effect between continuous learning and competence development in handling change.

**H<sub>02</sub>:** There is no significant effect between continuous learning and competence development in handling change.

**H<sub>03</sub>:** There is no significant effect between continuous learning and competence development in handling change.

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## Review Of Relevant Literature

### Continuous Learning

In today's fast – paced business world no one's going to give you permission to engage in continuous learning, you must take the initiative yourself. To grow in our jobs requires that we keep on growing and learning, long after our formal schooling is done. The more we are able to know and the more skills we acquire, the more value we can offer to our employers. And that places us in an upward spiral of growing income. Well-known business author and change agent Tom Peter, called it cultivating "towering competence" – becoming the very best at what you do, by continuing to bear and have your skills and capabilities to the point where they become highly regarded and sought after by your co-workers and professional peers. Continuous learning means we are keeping the 'raw materials pile of our brain freshly stocked, which enables us to come up with more and better ideas and innovations which every business needs today. New ideas and solutions are a primary way you can add value to your job, and therefore increase your success. (By innovation tools. com continuous learning: An Essential Strategy for your personal success, [www.innovationmanagement.se](http://www.innovationmanagement.se)).

According to Anderson (2013), it is crucial for senior information security professional to build new competencies and maintain existing ones. The rate of technological innovation continues to accelerate. According to Kurzweil's the law of accelerating returns, the 21st century will see almost one thousand times greater technological change than in the prior century. This means information security challenges in managing their associated risk. These new challenges will also generate exciting opportunities and career specifications. Many technologies we manage risk for today did not exist a decade ago, for example, cloud computing, smart phones, virtualization. Fortunately, the options for refreshing and extending knowledge and skills have expanded to allow the members of the information security community to maintain both proficiency and flexibility in their specific domains of expertise. Nowadays, formal training is only a beginning. Knowledge is accumulating at such a fast rate that one must continue to learn to be effective. Indeed, most professions mandate that their members continue learning in order to maintain their license to practice (Merriam, et al 2007).

Continuous learning refers to the ability to continually develop and improve one's skills and knowledge in order to perform effectively and adapt to change in the workplace. With a goal towards effective performance in the workplace, this ability involves taking responsibility for keeping up-to-date on current research and technology in one's work, identifying and pursuing areas for development and training that will enhance job performance, being able aware of, reflecting on learning from on-going organization changes (Mherzog 2012). According to Deloitte (2015), continuous learning refers to the

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on-going development of skills, abilities and knowledge through different means (including work on the job, training, experiences, communications etc.) and is part of an individual's on-going professional life at work and outside of work. It is an approach to learning in which corporate resources, expectations and culture encourage employees to learn continuously throughout their tenure with the organization. When we say continuous we mean that traditional courses are no longer seen as the basic building block of learning. Rather, coursework is combined with several other elements that enable and encourage employees to learn in many ways. Continuous learning increases the organization's collective knowledge through enablement and empowerment. Once employees are enabled and empowered, they will find ways to increase their knowledge and share it within the organization. The Bersin by Deloitte continuous learning model classifies these learning needs into the following three main categories – immediate (performance support and other tools for point-of-need learning. Question: what do I need to support my success in the moment?), intermediate (current job development and competency expansion. Question: what do you need to do grow in my current role?), and transitional (development of skill and relationship that will meet long term business goal. Question what do I need to grow in my career?). It also divides learning methods into the following four contexts (known as the four Es) – Education, Experience, Exposure, and Environment.

### **Levels Of Continuous Learning**

Continuous learning occurs at three different levels namely; Individual, group and organization.

❖ **Individual level:** continuous learning means a constant pursuit of knowledge. This information helps individuals do their jobs better and solve problems more creatively, so a lot of companies invest in training online tutorials, or discretionary time for employees to spend learning something new. Sometimes, employees encourage people to do things like learn a new software program or process improvement approach. Other times, they promote out-of-the box employee engagement activities like learning a new language or instrument. This type of learning regardless of the subject stimulates the mind and encourages employees to approach their work with a broader perspective. Some of the practices of continuous learning at the individual level include:

- Asking questions when you do not understand something
- Asking for feedback or advice from more experienced co-workers
- Identifying learning or training programs that are available to you at work and in your community
- Learning by observing more experienced colleagues or practitioners
- Finding and using learning materials or resources for example, searching the internet, reading articles
- Seeking out and participating in training courses
- Identifying and understating your skill strengths and the areas where you need improvement

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- Developing your own learning goals at work and in your personal life
  - Applying the lessons you have learned from past experiences to new situations
  - Trying new ways of doing things
  - Recognizing your preferred learning style for example, learning by seeing, hearing or doing
  - Taking responsibility for your own learning
  - Maintaining your skill levels by practicing what you have learned.

Continuous learning at the individual level can be done through seminars and workshops, trainings, coaching and mentoring, and also through actual application, on their own, individual can learn by taking up a new course or buying self-help books to guide them as they learn a new knowledge or skill. In this level, learning requires time and effort, as well as the decision to want to learn. It would not be wise to manipulate or force any person to learn something he dislikes, because it would fail miserably. The only thing to do is to make individuals understand the value of continuous learning, and how it will not only help the organization, but most importantly, it will be a great benefit to the banner as well.

❖ **Group level:** when one person learns something in a continuous learning organization, their information is added to the existing knowledge bank, so that everyone else can benefit from that information. Continuous learning on the group level increases organizational efficiency as new best practices are disseminated and everyone is not constantly reinventing the wheel. Both types of continuous learning – both individual and group – are important for maintaining a culture of continuous improvement. The widened perspective that comes from learning new things solo and from the experience of a group promotes the identification of opportunities for improvement, as well as creative problem solving the more people that are engaged in continuous learning the better, as each addition to the culture brings a fresh perspective to communal knowledge bank. For Kai (2017) once teams produce enough learning content they will need to reflect on and discuss it. There are two good places to do this. For technical matters, the best place is a programmer's study group and for team, people or process matters, the best place is in an iteration retrospective. Both types of continuous learning in individual and group are important for maintaining a culture of continuous improvement. The widened perspective that comes from learning new things solo and from the experience of a group promotes the identification of opportunities for improvement, as well as creative problem solving. The more people are engaged in continuous learning the better, as each addition to the culture brings a fresh perspective to the communal knowledge bank. Continuous learning for teams is collective individual learning which means that if the members of the team acquire and share new knowledge and information, then team learning takes place. In addition, continuous learning at this level also involves a set of learning processes that support and aid team

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performance in the form of reflections, feedback, experimentation, group discussions, and Q & A sessions. New knowledge can be in the form of a theory, tool, idea, or concept whereas new skill can be in the form of practices.

❖ **Organizational level:** continuous learning is increasingly important to success of the organization because of changing economic conditions. Given the current business environment, organizations must be able to learn continuously in order to deal with these changes and, in the end, to survive and thrive. (<http://www.kainexus.com>) retrieved on 30/05/2017. For Exforsys (2010) in any organization, continuous learning means growth through learning events and experiences. It can be applied to individuals, team and organizations – a process that will help them to achieve their overall objectives. Organizational continuous learning comprises change of interaction patterns, change of policies and procedures, new culture, and new innovations and systems that have been institutionalized, which means that these are now embedded in the systems and structures of the organization, as a means to achieve overall objectives. Such changes are more felt in individuals and teams, as they are fundamentally what comprise an organization. Continuous learning at organizational level can be achieved through feedback from the employees themselves, from clients, and from customers. Getting comments and ideas from these groups of people will enable an organization to figure out if changes or developments are necessary in order to move forward. At this level, there are several types of continuous learning that can take place. These are:

**i. Single-loop Learning:** This would refer to an adaptive type of learning wherein adjustment needs to be made within the organization if it is deemed necessary. These can take in the form of detecting errors and loopholes in policies, structures and procedures.

**ii. Double-loop Learning:** This type of learning refers to not only detecting and correcting errors and loopholes, but also finding out why it occurred. Once answers have been found, the organization then proceeds to change policies, structures, and procedures.

**iii. Generative Learning:** This type of learning entails intentionally adding new information, knowledge, and skills in order to make changes in the organization. Individuals and teams may collaboratively work together to understand the current issues the organization faces, and from there identify what needs to be done to address these issues. Such solutions take the form of learning new knowledge and skills. ([www.exforsys.com](http://www.exforsys.com)) retrieved on 20/06/2017.

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## **Objectives Of Continuous Learning**

- 1) To update skills and learn new ones, and grows your values
- 2) To build self-confidence and competencies
- 3) Strong continuous learning skills are required to successfully adapt to changing work and life demands
- 4) Organizations must be able to learn continuously in order to deal with these changes and in the end to thrive and survive.

## **Types Of Continual Learning**

Continuous learning involves series of methods but we clearly select these ones that are common to all workers and organizations:

**Seminars and Workshops:** Attending a workshop can improve skills in a specific area. It could be related to your field or completely unrelated.

**Read:** Books, magazines and websites about your industry can keep you abreast of any changes, listening to educational programs on your ipod while running or in your car, for example, can enhance learning.

**Conventions:** Attending conventions in your field can broaden knowledge and provide important contacts and networking opportunities.

**Coaching and Mentoring:** If your company does not have a formal mentoring program, find someone who you admire and someone who is successful and learn from them.

**Travel:** Travel helps broaden our experience.

**Socially:** Spend time with friends, we can learn about ourselves through our friends and close relationships.

**Weekly meeting:** Each Monday, after hours most organizations meet to discuss current projects and share technologies that are being used on these projects.

**Technical presentations:** Team members may present recent advancement on technologies they are involved closely with.

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Internships: An internship is an opportunity offered by an employer to potential employees, called interns, to work at a firm for a fixed, limited period of time. Interns are usually undergraduates or students and most internships last for any length of time between one week and 12 months. It aims at acquiring knowledge and skills in the organization.

### **Competence Development In Handling Change**

Here the emphasis is on the model widely used in the training literature which looks at the stages of competence development. According to Carnall (2003), in any change setting we move from unconscious incompetence to unconscious competence through conscious incompetence and then conscious competence. The process of moving from unconscious incompetence (in which we are not aware of lack of competence), to a state of conscious incompetence, (in a state of heightened awareness we become immediately aware of lack of competence). This initial process is one of awareness rising. In a change setting, this may come through communication processes, visits and so on, but will often come from facing new demands from customers or sources of competition which cannot really be met. The matters are generally brought out through diagnostic studies, internal reviews, etc. Undertaken by consultants (external or internal), task forces etc. The next process is that of skill building as we move from conscious incompetence to conscious competence. Here we have the first stage of implementation. Skills in new systems, procedures, etc. are developed and practiced. The learning includes change workshop, staff training, surveys etc. Here awareness of the process is high and the level of personal risk taking at its highest. Management support for risk taking is vital as is an understanding that the most important process here may well be experimentation. In competence development, early attempts to use a new approach enable us to identify the modifications usually needed to make it work effectively. This is the process within which individual learning is at its highest and is therefore the time during which organizational learning should be maximized. It is always necessary to capture the lessons from early change trials and change workshops in order to transfer systematically the emerging best practice. The trial process is that of developing excellence through long practice. Here the emphasis is on the performance management system and includes attention to personal development and organizational learning. Now the competence becomes so practiced that we no longer think about it. It becomes embedded in the organization, part of the background.

### **Methodology**

This study adopted survey method to take a snapshot at the situation in the organization and analyse same. Furthermore purposive/convenient sampling technique was adapted to select fifteen (15) branches whose staff strength are more than ten (10). Based on these criteria, , we studied the entire population of the respondents in these fifteen (15) branches conveniently selected in Tonimas Nigeria



Limited. Here are the fifteen (15) branches in Tonimas Nigeria Limited. Data were collected from both primary and secondary sources. Chi-square was used to analyse the hypotheses with the aid of statistics package for social sciences (SPSS, 20.0) to establish the effects among the dimensions of independent variable on the dependent variables because the data were collected at the ordinal level. To ensure reliability, the Cronbach Alpha coefficients were used to measure the strength and reliability of the questions of the measuring instrument, using the statistical package for social science (SPSS) 20.0. Hence, only the item that returns alpha value of 0.7 was considered.

**Branches of Tonimas Service Station (TSS)**

S/N	Name of Branches/Address	Staff Population
1.	TSS 24 Aba-Owerri Road Aba	20
2.	TSS 23 Okigwe Road Aba	18
3.	TSS 12 Okigwe Town	19
4.	TSS 8 PH Road Aba	16
5.	TSS 31 High Level Road Makurdi	15
6.	TSS 15 Yenegoa Road, Yenegoa	20
7.	TSS 17 Umuahia	19
8.	TSS 4 Owerri	18
9.	TSS 18 Calabar	14
10.	TSS 36 Igbo-Ukwu, Anambra State	20
11.	Head Office Margaret Avenue Aba	15
12.	Transport Division Aba-Ph-Express Road	12
13.	TSS 19 Trikania 5 Kaduna	18
14.	Tonimas Lagos Office Apapa Lagos	16
15.	TSS 13 Ikom Cross River State	14
	<b>Total</b>	<b>478</b>

Source: Field Survey, 2017

Taro Yamane's formula was used to determine the sample size as follows;

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

Where: n= Sample size sought, e<sup>2</sup>= level of significant and N= population size

$$n = \frac{478}{1 + 478(0.05)^2}$$

2.2 n = 217 (sample size)

## Presentation Of Data

### Response rate on research instrument distributed to Tonimas Nigeria Limited.

S/N	Respondent School	No. of question distributed	No. of questionnaire returned and percentage	No. of unreturned questionnaire and percentage
1.	TSS 24 Aba Owerri Aba	15	15 (100%)	0 (0%)
2.	TSS 23 Okigwe Road Aba	15	15 (100%)	0 (0%)
3.	TSS 12 Okigwe Town	15	15 (100%)	0 (0%)
4.	TSS 8 Ph Road Aba	15	13 (86.7%)	2 (13.3%)
5.	TSS 31 High Level Road	15	12 (80.0%)	3 (20.0%)
6.	TSS 15 Yenegoa Road	15	7 (46.7%)	8 (53.3%)
7.	TSS 17 Umuahia	15	15 (100%)	0 (0%)
8.	TSS 4 Owerri	15	15 (100%)	0 (0%)
9.	TSS 18 Calabar	15	14 (93.3%)	1 (6.7%)
10.	TSS 36 Igbo Ukwu Anambra	15	15 (100%)	0 (0%)
11.	Head Office Margaret Av Aba	15	12 (80.0%)	3 (20.0%)
12.	Transport Division Aba/Ph Ex	15	12 (92.3%)	1 (7.7%)
13.	TSS 19 Trikania 5 Kaduna	13	10 (76.9%)	3 (23.1%)
14.	Lagos Office Apapa Lagos	13	13 (100%)	0 (0%)
15.	TSS 13 Ikom Cross River	13	12 (92.3%)	1 (7.7%)
	Total	217	195 (89.9%)	22 (10.1%)

Source: Field Survey, 2017

Out of the 217 copies of questionnaire distributed to the respondents of Tonimas Company, 195 copies were returned by the respondents which represented 89.9% of the total copies of questionnaire distributed.

## Analysis Of Research Question

The different questions formulated in this study were analysed in this section

## Analyses Of Response Rates

Response rate on individual continuous learning and competence development in handling change

	Frequency	Percent	Valid percent	Cumulative percent
To a great extent	72	36.9	36.9	36.9
To a considerable extent	63	32.3	32.3	69.2
To a moderate extent	40	20.5	20.5	89.7
To a slight extent	13	6.7	6.7	96.4
Not at all	7	3.6	3.6	100
Total	195	100	100	

Source: Field Survey, 2017

From the table above, response rate on to a great extent was 72 (36.9%), to considerable extent was 63 (32.3%), to a moderate extent 40 (20.5%), to a slight extent was 13 (6.7%), and not at all was 7 (3.6%).

Research Question Two: to what extent does group continuous learning affect competence development in handling change?

**Response rate on group continuous learning and competence development in handling change**

	Frequency	Percent	Valid percent	Cumulative percent
To a great extent	84	43.1	43.1	43.1
To a considerable extent	51	26.2	26.2	69.3
To a moderate extent	33	16.9	16.9	86.2
To a slight extent	17	8.7	8.7	94.9
Not at all	10	5.1	5.1	100
<b>TOTAL</b>	<b>195</b>	<b>100</b>	<b>100</b>	

Source: Field Survey, 2017.

From the table above, response rate on to a great extent was 84 (43.1%), to a considerable extent were 51 (26.2%), to a moderate extent 33 (16.9%), and to a slight extent was 17 (8.7%), and not at all was 10 (5.1%).

**Response rate on organization's continuous learning and competence development in handling change**

	Frequency	Percent	Valid percent	Cumulative percent
To a great extent	68	34.9	34.9	34.9
To a considerable extent	60	30.8	30.8	65.7
To a moderate extent	54	27.7	27.7	93.4
To a slight extent	13	6.6	6.6	100
Not at all	0	0	0	100
<b>TOTAL</b>	<b>195</b>	<b>100</b>	<b>100</b>	

Source: Field Survey, 2017

From the table above, response rate on to a great extent was 68 (34.9%), to considerable extent were 60 (30.8%), to a moderate extent were 54 (27.7%), to a slight extent were 13 (6.6%), and not at all was 0 (0%).

**Test Of Hypotheses**

**H<sub>01</sub>:** There is no significant effect between individual continuous learning and competence development in handling change.

**Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.977 <sup>a</sup>	9	.001
Likelihood Ratio	13.066	9	.003
Linear-by-Linear Association	1.213	1	.060
N of Valid Cases	195		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .62.

**Decision:** Since the p-value or sig. (0.001) < the alpha level (0.05), we reject the null hypothesis and accept alternate hypothesis. The study therefore state that individual continuous learning has significant effect on competence development.

**H<sub>02</sub>:** There is no significant effect between group continuous learning and competence development in handling change.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.496 <sup>a</sup>	9	.000
Likelihood Ratio	11.967	9	.002
Linear-by-Linear Association	.411	1	.076
N of Valid Cases	195		

a. 9 cells (56.2%) have expected count less than 5. The minimum expected count is .41.

Decision: Since the p-value or sig. (0.000) < (0.05), we reject the null hypothesis and accept alternate hypothesis. The study therefore state that group continuous learning has significant effect on competence development.

**H<sub>03</sub>:** There is no significant effect between organization's continuous learning and competence development in handling change.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.109 <sup>a</sup>	9	.000
Likelihood Ratio	15.403	9	.010
Linear-by-Linear Association	.252	1	.086
N of Valid Cases	195		

a. 8 cells (50.0%) have expected count less than 5. The minimum expected count is .51.

**Decision:** Since the p-value or sig. (0.000) < (0.05), we reject the null hypothesis and accept alternate hypothesis. The study therefore state that organization's continuous learning has significant effect on competence development.

### **Finding And Conclusion**

Based on the results above, the study found that continuous learning has a positive significant effect on competence development in handling change. The study concluded that continuous learning that is based on individual level, group level and organizational level enhances competence development in handling change in Tonimas Nigeria Limited.

### **Recommendations**

From the conclusion, the following recommendations were made;

- 1). Continuous learning helps to update skill, learn new ones, and grow in your values.
- 2). It helps employees to build self-confidence and competence required to successfully adapt to changing work and life demands.

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3). organizations must be able to learn continuously in order to handle changes effectively and efficiently.

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# Ergonomics And The Performance Of Micro-Finance Bank Workers In Enugu State, Nigeria

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## **ABSTRACT**

*The focus of this paper was on understanding the place of ergonomics in workers performance. The study adopted the survey research approach and covered a population of 109 employees from five selected micro-finance banks in Imo State, Nigeria. The data used in the study were generated from both primary and secondary sources. However, the major instrument for data collection was a five point likert scale questionnaire titled Ergonomics and Workers Performance questionnaire (EandWPQ). The data gathered were analysed using Pearson Product Moment Correlation Coefficient (PPMCC) and simple regression analysis with the aid of the 20.0 version of statistical package for social sciences (SPSS). It was therefore concluded by this paper that ergonomics has enormous effects on the performance of workers. In line with the findings and conclusion above, this paper recommends that Ergonomics should be leveraged as a policy and strategic drive towards enhanced workers performance. Moreover, achieving job-man-equipment-fit should be a prime guide in developing task performance process.*

**Keywords: efficiency, ergonomics, creativity, job design, productivity, safety, office design**

## **1. Introduction**

In an effort to curb employees' disengagement from the workplace, it has become a new challenge for top management to develop work environment that attracts, retain and motivate its workforce. Organizations are stepping outside their time-tested policies and comfort zones to develop new work environment that satisfy both the psychological and the physical needs of the employees at its core. They are creating work environments where people enjoy what they do, feel like they have a purpose, have pride in what they do and are allowed to reach their full potential. This paradigm may not be unconnected with the new thinking that the work environment affects employee morale, productivity and engagement- both positively and negatively. Furthermore, it is not just a twist of fate that new programs addressing lifestyle changes, work life balance, health and fitness that were previously not considered key benefits are now primary considerations of potential employees, and common practices among the most admired companies. Today's work environment is different, diverse and constantly changing. The typical employer/employee relationship of old has been modified significantly. Workers are living in a growing ICT driven economy, hence, information and access to job opportunity information are easier

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and closer. This combination of factors has created an environment where the business needs its employees more. The Nigerian telecommunication industry is witnessing a "close race" competition, making it expedient for telecommunication companies in Nigeria to strive to retain their talented workforce. Beyond competitive remuneration, telecommunication companies are leveraging workplace design (ergonomics) to attract and keep highly skilled personnel in the industry. How well this work environment design contributes to employees' performance is the task of this study to resolve. Moreover, the question of industrial safety is fast changing the way workplaces and jobs are designed. While workplaces are designed to suit employees deficiencies like concern for the physically challenged employees, jobs are designed not just to reduce and/ eliminate industrial hazards but ensure that the health of the employees like avoiding sitting all day long is factored in. All this are aimed at achieving one thing; work environment-employee-job-fit. Roeloelofsen, (2002), posits that ergonomics is a science concerned with the 'fit' between people and their work. It puts people first, taking account of their capabilities and limitations. Ergonomics aims to make sure that tasks, equipment, information and the environment fit each worker. By assessing people's abilities and limitations, their jobs, equipment and working environment and the interaction between them, it is possible to design safe, effective and productive work systems.

Another significant definition of ergonomics is given by the Cambridge dictionary as the scientific study of people and their working conditions, especially done to improve effectiveness (dictionary.cambridge.org). Commenting on the relevance of ergonomics to employees' performance, Taiwo (2010), states that work systems do not only affect commitment, competence and cost effectiveness but also have long term effects on physical health, mental health and longevity of employees. One major benefit derived from pursuing office ergonomics is that it reduces the risk of injury by adapting the work to fit the person instead of forcing the person to adapt to the work. In addition to injury prevention, ergonomics is also concerned with enhancing work performance, by removing the barriers that exist in many work places that prevent employees from performing to the best of their abilities. This ultimately helps people work more effectively, efficiently, and productively at their jobs (Washington State Department of Labor and Industries, 2002). According to the Washington State Department of Labor and Industries, ergonomics improvements to the work environment are primarily used to create a safer and healthier work environment, and that a company may experience other benefits including increased productivity, increased work quality, reduced employee turnover, reduced absenteeism, and increased morale.

Employees' performance is a very significant factor affecting profitability of an organization (Bevan, 2012). Inefficient job performance will create problem for the organization with respect to lower productivity, profitability and impairment of overall organizational effectiveness (Okoyo & Ezejiofor,



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2013). As pointed out by Viswesvaran and Ones (2000), job Performance is the core construct of today's work place. Job performance is defined as behaviors or activities that are performed towards achieving the organization's goals and objectives. Performance is important for organizations as employee performance leads to business success and performance is important for individual as accomplishing tasks can be a source of satisfaction (Muchhal, 2014).

### **Statement Of Problem**

Due to increasing flux of investment in Nigeria, organizations are experiencing incredible pressures to become more efficient, while simultaneously maintaining a high level of responsiveness to environmental changes. These pressures are translated into intense demand on employees and their collective performance. However, the right processes and facilities required to meet these demands are in most cases lacking. This puts a snag on the effectiveness and efficiency of the employees. Employees' creative capacity cannot be maximized if the management fails to provide the right behavioural environment for innovativeness to strive. To be efficient both at individual and organizational level is to reduce waste in the organization to its barest minimum. Organizations today need to reduce waste in the areas of industrial accident compensation which creates loop holes for both lost man hour and finance. Organizations need to achieve certain level of environment-employee-job-fitness if the employees must be at their best always which impacts on their abilities to deliver on the job for which they are hired and the satisfaction which they seek from their job. Hence, where ergonomics is not considered as a continuous organizational policy and strategic attempt to enhance employee's performance, the organization will be faced with both employees' productivity problem and market competition challenges. Therefore, the research problem is to examine how organizations attain improved employees performance through ergonomic practices.

### **Objectives Of The Study**

The broad objective of this study is to assess the influence of ergonomics on employee performance. The specific objectives are;

- i) Determine the influence of the job design on employees' efficiency
- ii) Examine the influence of workplace safety on employees' creativity
- iii) Ascertain the influence of office design on employees' productivity

### **Hypotheses**

The researcher made the following null hypotheses for this study

**H<sub>01</sub>**: Job design does not have significant influence on employees' efficiency

**H<sub>02</sub>**: Workplace safety does not have significant influence on employees' creativity

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**H<sub>03</sub>:** Office design does not have significant influence on employees' productivity

### **Review Of Related Literature**

Ergonomics is the scientific discipline that is concerned with understanding of the interactions among humans and other elements of a system. It applies theory, principles, data and methods to design, so as to improve human well-being and overall system performance (International Ergonomics Association (IEA, 2000). Ergonomics aims at designing the workplace so that it will fit the needs and physical capabilities of employees, instead of physically forcing the worker's body to fit the job, (Ghosh et al, 2011). Ergonomic factors that can elicit job satisfaction could be derived from a wide range of issues that emanate from the workplace. For instance, if work environment is poorly designed, it could hinder or slow down the employee's performance in the workspace, and this could eventually lead to frustration which, in turn, affects job satisfaction. According to IEA (2012) Ergonomics (or human factors) is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance. The United Kingdom based Health and Safety Executive (HSE), in 2003 defined Ergonomics as the scientific study of human work. It considers the physical and mental capabilities and limits of the worker as he or she interacts with tools, equipment, work methods, tasks and the working environment. The publication further postulates that the application of Ergonomics to workplace improves health and safety by: reducing the potential for accidents, reducing the potential for injury and ill health and improves performance and productivity.

Many business executives are under the mistaken impression that the level of employee performance on the job is proportional to the size of the employee's compensation package. Although compensation package is one of the extrinsic motivation tools, it has a limited short term effect on employees' performance. A widely accepted assumption is that better workplace environment motivates employees and produces better results (Leblebici, 2012). Essentially, an elegant and functional workplace environment often culminates into improved employee efficiency and productivity. In recognition of this fact, most offices are now designed and furnished with the employee in mind to ensure that his workplace environment including furniture and equipment adequately support and induce high performance. The quest to situate employees in a most suitable workplace environment, furniture, equipment, tools and techniques to discharge their duties efficiently and effectively is the fundamental philosophy behind the development and growth of ergonomics. The performance of an employee is measured actually by the output that the individual produces and it is related to productivity. At corporate level, productivity is affected by many factors such as employees, technology and objectives of the organization. It is also dependent on the physical environment and its effect on health and employees'

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performance (Al-Anzi, 2009).

### **Ergonomic Risk Factors**

Ergonomic risk factors include extreme forces, awkward postures, repetitive motions, mechanical stresses and vibration.

**i. Force:** Force refers to the physical effort that is required to complete a task. Force is used in almost any application involving lifting, reaching, pinching, pushing and pulling. In some cases the application of a high force is needed by placing a mechanical load on muscles, tendons, ligaments and joints. As muscles effort increases to the response of higher task loads, the circulation to the muscles decreases causing the muscles to fatigue more rapidly (Putz-Anderson, 1988). When force requirements are high or demanding on an individual and a suitable amount of recovery time is not available during the task, then soft tissue injuries will occur. Armstrong's (1986) stated that acceptable limits of force on different parts of the body are conditioned by variables of age, sex, body build and general health, all of which determine the tolerable amount of force available.

**ii. Mechanical Stresses:** Mechanical stresses are injuries that are caused from hard, sharp edges, equipment and or instruments. The injuries generally occur while grasping, leaning, balancing, pushing or pulling. The muscles or tendons of the worker are impaired due to being pressed against the hard or sharp edges of the object. It is the considered opinion of Warren and Sanders (2004) that force, pressure and compression of tissues against structures increases internal pressure which results in swelling of tissues and increases in the development of musculoskeletal diseases. When employees are using tools, the grip forces are transmitted to the soft tissues that underlie the tool. If the tool grip has a hard surface or is equipped with sharp edges, then the forces used to operate the tool will concentrate to a smaller area, thereby increasing the pain and tissue damage to that area.

**iii. Vibration:** Exposure to vibration generally comes from machines, vehicles and equipment throughout the workplace. Warren and Sanders also stated that when vibration is applied to the body, it causes oscillations in tissues and a bodily response will follow. The response will generally depend on frequency, direction, intensity, acceleration, point of application and the posture of the body at the point of vibration contact. The most prevalent types of musculoskeletal illnesses that employees could potentially encounter are cumulative trauma disorders of: tendon disorders, nerve disorders and neurovascular disorders.

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## Ergonomic Controls

According to the British Standards Institution, (2007), the development of ergonomic controls must be carefully planned before implementing in the workplace. Management will justify the reasoning and cost of controls by prioritizing their implementation. The typologies of ergonomic controls according to the British Standards Occupational Health and Safety Management Systems are;

- ❖ **Elimination:** According to Merriam-Webster's Dictionary (2008), elimination is defined as the act, process, or an instance of eliminating or discharging. When the risk of injury is apparent, the company must try and eliminate the risk if possible. Eliminating hazards throughout the workplace, work processes and entering the workplace, is the most effective method of control. It is easier and more efficient to eliminate hazards in the design stage because the exposure is not yet present
- ❖ **Substitution:** In the case that elimination is not practical or sufficient, appropriate steps must then be taken in order to reduce the risk through the control method of substitution. Substitution can be used with workplace hazardous materials and work processes. The substitution of work processes can include changing process procedures to provide workers with a safer workplace and a reduced exposure to hazards. An example of this could include using pneumatic tools rather than using manual tools in a manufacturing process to reduce the demanding manual work involved.
- ❖ **Engineering Controls:** Engineering controls are physical changes to jobs that control employee exposure to risk without depending on the employee to protect themselves against potential risks. Successful ergonomic projects are achieved primarily through implementing engineering controls which consist of changing tools, controls, piece presentation, workstations, and workflow to reduce or eliminate risk factors (Wynn, 2004). According to Putz-Anderson (1998), engineering controls try to achieve control over the job risk factors that are associated with the development of Cumulative Trauma Disorders (CTD's). Clark (2004), states that the goal of engineering controls is to "design out" ergonomic hazards. This is done by adjusting the demands of the job with an engineered improvement instead of expecting the worker to adjust their human capacity to the job demands. Implementing engineering controls will not only limit the apparent hazards to workers in the workstation, but optimize comfort, efficiency and total job satisfaction.
- ❖ **Administrative Controls:** This control refers to actions taken by management or medical staff to limit the potential health effects on workers (Putz-Anderson, 1988). This is done by modifying personnel functions. Manuele (2008) signifies that administrative controls include: selecting personnel, applying or changing work methods and procedures, training, supervising, motivating

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workers, modifying behaviors, scheduling, rotating jobs and breaks, maintaining equipment, managing change and investigating, and inspecting. Stromme (2004), believes that administrative controls can be affected by human error and should not be relied upon to reduce risk exposure every time.

- ❖ **Personal protective equipment:** In the event that engineering and or administrative control fails to make significant effect on reducing or eliminating hazards, then PPE should be used to ultimately protect the worker from potential hazards and risks. PPE is a last resort mechanism in the hierarchy of hazard controls. PPE may include but is not limited to safety glasses, hearing protection, breathing apparatuses, face shields, safety shoes or boots, gloves, and helmets. PPE may be utilized when engineering controls are not feasible or are in the process of being developed, when safe work practices do not provide sufficient protection, and in the case of an emergency (Stromme, 2004).

### **Concept Of Employee Performance**

Every organization requires highly performing individuals in order to ensure competitive advantage and attainment of corporate goals. High employee performance is therefore one of the critical determinants of the level of organizational productivity and accomplishments. Accomplishing tasks and performing at a high level can be a source of satisfaction, with feelings of mastery and pride. In defining the concept of employee performance, Campbell et al., (1993) as cited in Sonnentag (2002) differentiates between an action (i.e. behavioural) aspect and an outcome aspect of performance. The behavioral aspect refers to what an individual does in the work situation. It encompasses behaviors such as assembling parts of a car engine, selling personal computers, teaching basic reading skills to elementary school children, or performing heart surgery. The outcome aspect refers to the consequence or result of the individual's behavior. The above described behaviors may result in outcomes such as numbers of engines assembled, pupils' reading proficiency, sales figures, or number of successful heart operations. In simple terms, employee performance can be defined as the extent to which an organizational member contributes to achieving the goals of the organization.

### **Factors Affecting Employee Performance**

Al-Anzi (2009) suggests that the key factors that affect employee productivity and performance fall into two categories: Management driven factors and Factors that arise from premises, offices or factory design.

A. Management Driven Factors: Al-Anzi also identifies the following as some of the management driven factors that tend to affect employee's productivity and performance:

- Organization plans such as the allocation of responsibilities at all levels of the organization,

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definition of job descriptions and the degree of access to the management and administrative support needed to complete their tasks

- Working patterns, shift-working, break times, absence or holiday cover; and
- Health and safety policies, including the provision of training, development of safe working practices and the adequate supply of protective clothing and equipment

**B. Factors that arise from premises, offices or factory design:** Al-Anzi proceeded to further identify the following as the key premises or office factors that tends to affect employee productivity and performance:

- Furniture
- Workspace availability
- Light intensity
- Weather/temperature
- Ventilation/humidity
- Noise/vibration
- Premises hygiene/welfare facilities

### **Methodology**

The design for this study is the survey research and it covered a population of 109 employees from five selected micro-finance banks in Imo State, Nigeria. The data used in this study were generated from both primary sources and secondary sources. However, the major instrument for data collection was a five point likert scale questionnaire titled Ergonomics and Workers Performance questionnaire (EandWPQ). The statistical tools used for data analysis are Pearson Product Moment Correlation Coefficient (PPMCC) and simple regression analysis using the 20.0 version of statistical package for social sciences (SPSS). The formula for PPMCC is as shown below;

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

Where, r = Pearson correlation coefficient, x = Values in first set of data, y = Values in second set of data and n = Total number of value

### **Results And Discussions**

In this section, we used Pearson Product Moment Coefficient (PPMC) techniques to test the three hypotheses stated in this study with the aid of statistical software known as the SPSS Software version

20.00.

$H_{01}$ : Job design does not have significant influence on employees' efficiency

ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1901.796	1	1901.796	66.091	.000 <sup>b</sup>
	Residual	230.204	8	28.775		
	Total	2132.000	9			

a. **Dependent Variable:** Job design

b. **Predictors:** (Constant), employees' efficiency

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.949	2.422		1.218	.258
	Employees' efficiency	.827	.102	.944	8.130	.000

a. **Dependent Variable:** Job design

Since the p-value or sig. (0.000) < the alpha level (0.05), we reject the null hypothesis and conclude that job design has significant effect on employee's efficiency

$H_{02}$ : Workplace safety and health does not have significant influence on workplace employees' creativity

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.679 <sup>a</sup>	.460	.393	15.20293	.460	6.827	1	8	.031

a. **Predictors: (Constant), Health and Safety**

ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1577.868	1	1577.868	6.827	.031 <sup>b</sup>
	Residual	1849.032	8	231.129		
	Total	3426.900	9			

a. **Dependent Variable:** Employee's creativity

b. **Predictors: (Constant), Health and Safety**

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.770	7.293		1.888	.096
	Health and Safety	.838	.321	.679	2.613	.031

**a. Dependent Variable:** Employee's Creativity

Since the p-value or sig. (0.031) < the alpha level (0.05), we reject the null hypothesis and conclude that employee's health and safety programmes makes positive influence on employee's creativity

**H<sub>03</sub>:** Office design does not have significant influence on employees' productivity

### Descriptive Statistics

	Mean	Std. Deviation	N
Office Design	21.5000	17.74041	10
Employee's Productivity	22.4000	17.63960	10

### Correlations

		Objective Feedback	Organizational Productivity
Objective Feedback	Pearson Correlation	1	.831
	Sig. (2-tailed) N		.020
Employee's Productivity	Pearson Correlation	.831	1
	Sig. (2-tailed) N	.020	
		10	10

Since the p-value or sig. (0.02) < the alpha level (0.05), we reject the null hypothesis and conclude that office design has significant effect on employee's productivity

### Discussion Of Findings

In this study, the major findings revealed that ergonomics is a strategic tool that can be leveraged to enhance the performance of employees in Nigerian micro-finance banks. The result of the various hypotheses tested in this study lends credence to the assertion above. The result of hypothesis one showed that the p-value is 0.000 which is less than the level of significance (0.05), therefore we reject the null hypothesis and conclude that micro-finance bank employees' efficiency can be enhanced significantly through appropriate job designs that are consistent with employees job characteristics (person-job-fit). In hypothesis two, the null hypothesis was rejected in place of the alternative hypothesis since the p-value was lesser than the level of significance (i.e. 0.041 < 0.05), therefore we conclude that



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securing the safety and health of the workers can significantly influence creativity. At 0.020 outputs, hypothesis three proved that office layout and design has significant impact on ban workers' productivity. These findings are in consonance with the view of Pech and Slade (2006) who posits that there are many organizations in which employees encounter working condition problems related to environmental and physical factors. They argued that employee disengagement is increasing and it becomes more important to make workplaces to positively influence workforce. According to Pech and Slade, the focus is on symptoms of disengagement such as distraction, lack of interest, poor decisions and high absence, rather than the root causes. The working environment is perhaps a key root causing employee's engagement or disengagement.

### **Conclusion And Recommendations**

The performance of employees does not only depend on their competencies but on the suitability of the job to his personal characteristics, physical and psychological environment where the job is expected to be performed. It was therefore concluded by this paper that ergonomics has enormous effects on the performance of workers. In line with the findings and conclusion above, this paper recommends that Ergonomics should be leveraged as a policy and strategic drive towards enhanced workers performance. Moreover, achieving job-man-equipment-fit should be a prime guide in developing task performance process

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# Material Management And The Effectiveness Of Selected Manufacturing Small And Medium Size Firms In Enugu State

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## **ABSTRACT**

*this study focused on the effect Material Management has on the Effectiveness of Selected Manufacturing Small and Medium Size Firms in Enugu State. The paper adopted survey design, and analysis was based on primary data generated through a structured five point likert scale questionnaire administered on the respondents. The population of the study comprised of 307 members of staff and 33 selected SMEs in Enugu state. Using Taro Yamane method, a sample size of 174 was drawn from the population. The statistical tool used for data analysis was the Mann-Whitney (U) test using the 17.0 versions of statistical package for social sciences (SPSS). From the SPSS outputs above, the U values for hypothesis one and two were 0.002 and 0.015 respectively. These outputs were less than the 0.05 level of significance, hence, it was discovered from the study that material management has significant positive effect on the effectiveness of SMEs. In specifics however, the findings shows that the effect of material management is more on resource efficiency than it is on competitiveness. The study therefore concludes that there is every need for SMEs to embrace and develop strategic material management capabilities if they must exit from existential threat by making sufficient profit for sustainability. The study recommended that SMEs must ensure the use of experts in their supply chain management in order to promote efficient procurement practices, there is need for SMEs to practice integrated material management system,; this will ensure best practices at each stage of the material flow and that Developing employees capabilities through training on recent relevant material management techniques is key to obtaining results that will promote overall organizational effectiveness*

**Keywords: Competitiveness, Material Management, Effectiveness, Resource Efficiency**

## **1. Introduction**

Small and medium scale enterprises across the globe are today seen as key to rapid and sustainable economic growth and development. This is manifest in their role as manufacturers of both primary and secondary products, employers of skilled and unskilled labour and significant contribution to the common purse of the nations through taxation. However, due to competition from big manufacturers from the domestic market and manufacturers at the international window, the effectiveness of most SMEs that are into manufacturing especially those in the Nigerian market has existential threat. It is

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therefore incumbent on SME managers to devise management models that could confer cost efficiency on it while maintaining product quality, one of these functions is proper handling or management of materials. Banjoko (2004) describes materials management as a set of integrated functions whose focus is the effective coordination of activities relating to the planning, requisitioning, storage of input, materials and work-in-progress, their conversion until they are delivered to the consumers. Also Fearon (2001) opined that material management is an integrated organizational arrangement establishing a single manager with authority and responsibility for policies and actions related determining the amount of material requirements, acquiring needed materials, verifying, storing and issuing materials, maintaining inventory records, scheduling materials and disposing of materials which are in excess to the organization. Zenz (2003) defines materials management as a concept which brings together under one management the responsibility for determining the manufacturing requirement, scheduling the manufacturing process and procuring, storing and dispensing materials. As that, it is concerned with the control activities involved in the acquisition and use of material employed in the production of the finished project.

Ondiek, (2009) postulates that materials management provides an integrated system approach to the coordination of materials activities and the total material costs. They view it as something that advocates assigning to a single operating department all major activities, which contribute to the cost of materials. The objective is to optimize performance of materials systems, as opposed to sub-optimizing the performance of individual operating units that are part of the material system. Chase et al. (2009) contend that the objective of materials management is to ensure that the right item is at the right place, at the right time and at a reasonable cost. The intention of having materials management system in place is for solving materials problems from a total company view point (optimize) by coordinating performance of the various materials flow. Fearon et al. (1989) suggested that the introduction of computers was a great boost to the adoption of materials management, as materials function has many common databases. Waters (2006); Ondiek, observed that the traditional approaches to materials management uses planned operations where managers design a detailed schedule for each distinct activity within the chain. By coordinating these schedules, managers control the flow of materials. The problem with the traditional approach is that it is based on a paper system and even when firms move to automation, they often automate the same procedures. This has fundamental weaknesses of taking too long, being expensive, relying on paperwork, and physically moving paperwork between locations, having many people doing the administration, being unreliable, introducing errors, having more people supervising and controlling administration. These problems can be overcome when firms move electronic purchasing and hence adopting materials management approach.

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## Objectives Of The Study

The central objective of this study is to examine the effects material management has on the effectiveness of SMEs. Its specific objective is focused on;

- i. To examine the effects of supply chain management on the resource efficiency of SMEs
- ii. To examine the effects of strategic inventory control on the competitiveness of SMEs

## Hypothesis

**H<sub>01</sub>:** To examine the effects of supply chain management on the resource efficiency of SMEs

**H<sub>02</sub>:** To examine the effects of strategic inventory control on the competitiveness of SMEs

## Review Of Related Lteratures

Materials are simply industrial goods that become part of another physical product. They represent the major component of business cost and profitability. According to Ramakrishna (2005), on an average, half the sales income in an organization is spent on materials. This implies that to boost a firm's profit, there is the need to reduce materials cost which leads to a reduction in manufacturing cost. In the cost structure of most of the products manufactured, materials constitute 50% of the total cost, pointing to the need for the proper budgeting and control on cost of materials which is a core objective of Materials Management. The various types of materials to be managed in any organization include purchased materials, work-in-process (WIP) materials and finished goods (Banjoko, 2000). Ogbadu (2009) identified basic price, purchasing costs, inventory carrying cost, transportation cost, materials handling cost, office cost, packing cost, marketing cost, obsolescence and wastages as the various costs involved in these materials. Thus, the management of these materials so as to reduce the costs associated is what we refer to as Materials Management. An integrated approach to Materials Management defines it as "the function responsible for the coordination of planning, sourcing, purchasing, moving, storing and controlling materials in an optimum manner so as to provide a predetermined service to the customer at a minimum cost" (Gopalakrishnan & Sundaresan, 2006). International Federation of Purchasing and Materials Management (IFPMM) defined it as a total concept having its definite organization to plan and control all types of materials, its supply, and its flow from raw stage to finished stage so as to deliver the product to customer as per his requirements in time. These definitions provide the scope of Materials Management which includes decision on purchasing raw materials, staffing, inventories, stores and warehouse management, production levels, and distribution of finished goods at minimum cost at due time (Osotimehin, 2006).

## Key Functional Areas Of Materials Management

Barker (1989) identified five key functional areas that Materials Management cuts across which include

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purchasing, production and inventory control, quality control, storage and warehousing, and physical distribution. Linton et al., (2007), expanded the areas/activities to include forecasting demand and quantity of materials requirements, good supplier and customer relationship, indigenous source of supply for foreign materials, developing skills of workers in Materials Management, improved interdepartmental efficiency, and Research and Development (R&D) in Materials Management. These activities are managed by the Materials Management Department. Selection of personnel for marketing, purchasing, inventory control, stores management and materials handling and their training and placement is also to be seen by the Materials Management Department. The materials manager has to manage all these functions with proper authority and responsibility in the Materials Management Department. This indicates that it is very essential to have a Materials Management Department in any organization to support the management in the production activities. It also helps in the marketing, sales promotion and control of all the types of materials for its quantity, quality and cost.

### **Material Management Processes And Techniques**

Material management consist of a series of processes that need to be integrated, coordinated and synchronized well to ensure that material are available at their point of use when needed. Material management process begins from need generated from site followed by this information conveyed to store department and material is ordered in the store, indent is generated. Usually vender selection is to be carried out for the least value and best items. Materials are received at store departments and inspection is carried out.

**Planning:** Material planning is the initial process that needs to be carried out accurately in order to provide guide to all the subsequent activities. According to Gulghane & Khandve (2015) material planning includes quantifying, ordering and scheduling. The materials planning process covers the set up and maintenance of records and determines the target levels and delivery frequency. Adopting a good material management plan can increase productivity and profit.

**Testing:** Quality is a prime factor to measure the performance of a project. Unless a specific brand and model number is stated, it is advisable to conduct thorough study and analysis of the different material properties to check for its compatibility. Materials should only be ordered after receiving approval (Low & Ong, 2014). Proper assessment of the various materials is important to ensure quality and durability of the final product.

**Procurement:** Procurement according to Morris & Pinto (2007), is all about identifying and analysing user requirements and type of purchase, selecting suppliers, negotiating contracts, acting as liaison

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between the supplier and the user, and evaluating and forging strategic alliances with suppliers. For many organizations, materials and components purchased from outside vendors represent a substantial portion of the cost of the end product, and hence effective procurement can significantly enhance the competitive advantage of a project. Many authors have suggested that choosing best option of procurement can help to reduce the impact of uncertainties such as late deliveries, substandard raw material qualities, and resource constraints and so on.

**Logistics:** Logistic is defined as concept that includes movement and it may encompass planning implementing and controlling flow and storage of all goods from raw materials to the finished product to meet customer requirements (Kasim, et al., 2005). For smooth handling of materials, space need to be carefully allocated for material handling equipment, access roads, warehouses, workshop, and laydown materials in the construction site (Pellicer, et al., 2013)

**Handling:** Various materials possess different features and properties, that makes the handling of materials critical. Effective material handling involves handling, storing and controlling of material. Proper protection during storage is often ignored, and this can result poor material quality or material deterioration. Moreover it is also advised that transportation, loading and unloading of material should not be conducted in the rain. It is also recommended that the storage area needs to be enclosed, clean and dry with good air circulation and for some materials need to be stacked on pallets, not more than a certain safe height to prevent dampness and so on (Low & Ong, 2014). Adopting proper material handling and storage will help to keep the material intact and in good quality. And also will reduce loss of profit due to theft, damage and wastage as well as running out of stock. Patel & Vyas (2011) summarized the material management processes into 8 main parts; they are planning, benchmarking, purchasing, receiving, inspection, storage, issuing material and inventory control. Therefore it is very evident that in various countries these processes are carried out in different ways. There can be many factors that might influence these processes such as culture, work environment, belief and so on. Moreover different groups have learnt to deal with uncertainty in different ways, often because they find themselves faced with different levels of uncertainty.

### **Causes Of Material Management Failures**

Dey (2001) emphasized that the common issues regarding material management are as follows:

- Receiving materials before they are required which may increase inventory cost and may increase the chance of deterioration in quality;
- Not receiving materials during the time of requirement causing to decrease motivation as well as productivity

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- Incorrect materials take-off from design and drawing documents;
  - Constant design changes
  - Theft or loss of item
  - Choice of type of contract for specific material procurement
  - Vendor evaluation criteria
  - Piling up of inventory and controlling of the same
  - Management of surplus material.

In another study conducted by Sohrab (2009) states the common problems in material management are as follows:

- Failure to order on time which may cause delay in the projects;
- Delivery at the wrong time which may interrupt the work schedule;
- Over ordering;
- Wrong materials or wrong in direction of materials requiring re-work;
- Theft of materials from delivery into production;
- Double handling of materials because of inadequate material

In another research done by Gulghane & Khandve (2015), they stated that challenges of material management are often due to overstock materials because of improper planning, damaged materials due to logistics, handling or in application, loss of materials because of improper supervision, waiting of the materials to arrive in location due to improper tracking system, frequent movement of materials due to improper site layout, inflation, material changes in buying or purchasing situation starting from the prepared cost estimation.

### **Benefits Of Material Management**

Barker (1989) listed the followings as the core benefits drivable from material management

- Improvement in continuity of supplies with reduced lead times,
- Reduction in inventories with reduced obsolescence and surplus,
- Improvement in cooperation and communications with reduced duplication of effort,
- Reduction in material costs,
- Improvement in quality control,
- Improvement in status control, and quicker identification of problems

### **Methodology**

This paper adopted survey design, and analysis is based on primary data generated through a structured



five point likert scale questionnaire administered on the respondents. The population of the study comprises of 307 members of staff and 33 selected SMEs in Enugu state. Using Taro Yamane, a sample size of 174 was drawn from the population. The statistical tool used for data analysis is the Mann-Whitney (U) test using the 17.0 versions of statistical package for social sciences (SPSS).

## Results And Discussions

### Spss Output For Hypothesis One

NPAR TESTS/M-W= SCMandRE BY RANKS (5 1)/STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS

#### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
SCMandRE	30	34.8000	20.83002	.00	74.00	24.0000	32.0000	46.7500
RANKS	30	3.0000	1.43839	1.00	5.00	2.0000	3.0000	4.0000

### Mann-Whitney Test

#### Ranks

	RANKS	N	Mean Rank	Sum of Ranks
SCMandRE	1.00	6	3.50	21.00
	5.00	6	9.50	57.00
	Total	12		

### Test Statistics<sup>b</sup>

	SCMandRE
Mann-Whitney U	.000
Wilcoxon W	21.000
Z	-2.892
Asymp. Sig. (2-tailed)	.004
Exact Sig. [2*(1-tailed Sig.)]	.002 <sup>a</sup>

a. Not corrected for ties.

NPAR TESTS /M-W= SICandC BY RANKS(5 1) /STATISTICS=DESCRIPTIVES QUANTILES /MISSING ANALYSIS.

### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
SICandC	30	34.8333	18.26828	.00	71.00	24.5000	31.5000	49.0000
RANKS	30	3.0000	1.43839	1.00	5.00	2.0000	3.0000	4.0000

### Mann-Whitney Test

Ranks				
	RANKS	N	Mean Rank of	Sum
SICandC	1.00	6	4.00	24.00
	5.00	6	9.00	54.00
	Total	12		

### Test Statistics<sup>b</sup>

	SICandC
Mann-Whitney U	3.000
Wilcoxon W	24.000
Z	-2.406
Asymp. Sig. (2-tailed)	.016
Exact Sig. [2*(1-tailed Sig.)]	.015 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: RANKS

### Findings And Conclusion

From the SPSS outputs above, the U values for hypothesis one and two are 0.002 and 0.015 respectively. These outputs are less than the 0.05 level of significance, hence, it was discovered from the study that material management has significant positive effect on the effectiveness of SMEs. In specifics however, the findings shows that the effect of material management is more on resource efficiency than it is on competitiveness. The study therefore concludes that there is every need for SMEs to embrace and develop strategic material management capabilities if they must exit from existential threat by making sufficient profit for sustainability

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## Recommendations

The study recommends as follows;

- i. SMEs must ensure the use of experts in their supply chain management in order to promote efficient procurement practices
- ii. There is need for SMEs to practice integrated material management system; this will ensure best practices at each stage of the material flow
- iii. Developing employees capabilities through training on recent relevant material management techniques is key to obtaining results that will promote overall organizational effectiveness

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# Human Resource Information System And Organizational Effectiveness: A Study Of Selected Firms In Enugu State

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## **ABSTRACT**

*This study examined Human Resource Information System and its effect on Organizational Effectiveness. It adopted a survey research design while data was gathered from both primary and secondary sources. The statistical tool used for data analysis is the MannWhitney test (U) using the 17.0 version of statistical package for social sciences (SPSS). The study concluded based on the results obtained that HRIS has significant impact on the ability of organizations to attain enhanced satisfactory shareholder's return, improved competitiveness and sustainable corporate growth. Furthermore, the study asserts that organizations that must be effective must create a platform for proper integration of their human resource information into the mainstream of their strategy formulation, since it is the human resource that sees to strategy and programme implementations which is key to organizational effectiveness. The study recommends that to ensure that HRIS contributes to enhanced productivity, employees especially those in HR and ICT units should be trained on regular basis in order to acquaint them with relevant information and skills to face the changing organizational environment and that the cost of maintaining HRIS structures in the organization should be controlled in order to ensure that it does not negate the competitiveness of the organization.*

**Keywords:** *Corporate growth, HRIS, Market competitiveness, Shareholder's return*

## **1. Introduction**

Over the years, there has been a shift of perception on the role of Human Resource department from being a transaction and administrative to a strategic internal business partner. This perception is helped first by the ancient managerial belief that human resource is the single most important resource in the organization and secondly the advancement in the adoption of technology in human resource and organizational processes. Furthermore, the globalization phenomenon has brought with it an increased complexity and dynamism in the operational environments of business making it imperative to change the approach of human resource management. The need to cut human resource management cost in line with economic realities, promote self-service and ensure optimum return from human resource, in pursuit of the overall effectiveness of the organization has led to the adoption of human resource information system (HRIS) by many organizations. While the adoption of HRIS is predominant in the private sector, public sector organizations especially in developing economies like Nigeria are yet to take full advantage of this system. A Human Resource Information System is software that has a database, which allows the entering, storage and manipulation of data regarding employees of an

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organization. Typically, the Human Resource Information Systems provides management with all employee information, reports and analysis of employee information, and company-related documents such as employee handbooks, emergency evacuation procedures, and safety guidelines. Human Resources Information System provides details on administration, payroll, recruitment, and training. This system is expected to deliver valuable results to an organization's human resources division and the organization as a whole. It is an essential tool that aids management in making strategic decisions (Noor and Razali, 2011). The design of the human resource information systems assist in measuring the value of the human resources in a fiscal way and contributes to plan these resources on the economic unit, as well as the national through the contribution in drawing the labor and employment policies and the other linked polices as migration, payments, promotions, and motives in a scientific way (Dessler, 2005). According to Gürol, Wolff, & Ertemsir (2010), if organizations are to survive and achieve long-run viability, they must be effective. Yet organizational effectiveness evaluation has been limited by a variety of factors especially the ambiguity surrounding the concept of organizational effectiveness itself. The long-established approaches used by organizational theorists to define organizational effectiveness have emphasized different perspectives with respect to the organization type and degrees of importance of the various constituency groups comprising the organization.

Organizational effectiveness is the concept of how effective an organization is in achieving the outcomes the organization intends to achieve (Mitchell, 2013). According to Richard, Timothy, George and Gerry (2000) organizational effectiveness captures organizational performance plus the myriad internal performance outcomes normally associated with more efficient or effective operations and other external measures that relate to considerations that are broader than those simply associated with economic valuation (either by shareholders, managers, or customers). Different researchers have different thoughts about performance. Mostly researcher's used the term performance to express the range of measurements of transactional efficiency and input & output efficiency. The context of organizational effectiveness appears to be broad i.e. cutting across all industries. It is therefore instructive to note that organizational effectiveness can be analysed with industry specific indices.

### **Statement Of The Problem**

The continued existence of every organization among other things depends on the performance of her human resource. Where there is no instituted system for effective administration of human resource policy in an organization, indiscipline, financial recklessness and other wasteful organizational practices may become the order of the day and this will definitely affect the profitability of the organization negatively. Moreover, operational efficiency is a key to improved organizational effectiveness. Where there is no adequate control, operational efficiency may become unattainable and this factor affects the

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competitiveness of the organization negatively. To be effective, organizations desire growth. This however, must not be at the expense of human resource wellbeing, where human resource information system is inadequately operated; violation of rights according to labour contracts becomes imminent. This does not only attract sanctions from the regulatory body but also depletes the image of the organization which impedes the growth of the organization. The problems identified above leads to customer's dissatisfaction and low patronage which may lead to organizational ineffectiveness. The problem of this study therefore is to investigate the impact human resource information system has on organizational effectiveness.

### **Objectives Of The Study**

1. Examine the impact of operational human resource information system on shareholder's return.
2. Examine the impact of tactical human resource information system on the market competitiveness of organizations.
3. Investigate the impact of strategic human resource information system on corporate growth

### **Hypotheses**

The following hypotheses will be raised for this study;

**H<sub>01</sub>:** Operational human resource information system does not have significant impact on shareholder's return

**H<sub>02</sub>:** Tactical human resource information system does not have significant impact on organizational market competitiveness

**H<sub>03</sub>:** Strategic human resource information system does not have significant impact on corporate growth

### **Review Of Related Literatures**

The human resources information system is one of the sub-systems within the information systems. It is concerned with providing all the historical, present and future information related to human resources to the parties interested, whether they are internal or external ones. It identifies the value of human resource which is considered the sources that have the greater value in the economic units particularly in the service and industrial projects (Dessler, 2005). The human resources information system assists in measuring the value of the human resources in a fiscal way. It also contributes to planning these resources, as well as drawing labor and employment policies and other linked policies such as migration, payments, promotions, and motivation in a scientific way.

Organizations must treat information as any other resource or asset. It must be organized, managed and

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disseminated effectively for the information to exhibit quality. Within an organization, information flows in four basic directions; upward, downward, horizontal and outward/inward (Haag & Cummings, 2008). Taking into account that there is a huge amount of information flow in organizations, it is possible to understand the importance of information systems in organizations. The information systems field is arguably one of the fastest changing and most dynamic of all the business processes because information technologies are among the most important tools for achieving business firms' key objectives. Until the mid-1950s, firms managed all their information flow with paper records. During the past years, more and more business information and the flow of information among key business actors in the environment has been computerized. Businesses invest in information systems as a way to cope with and manage their internal production functions and to cope with the demands of key actors in their environments. HRIS was primarily seen as MIS sub functions within HR areas intended to support the "planning, administration, decision-making, and control activities of human resource management. During the 1990s, along with the adoption of more complex HR practices focused on a company's overall performance goal, HRIS correspondingly evolved into more sophisticated information expert systems featuring analytical tools to support decision-making in managing human capital (Ostermann et al, 2009). Information technology in the past decade drastically changed the human resources function, providing support for mainly administrative activities such as payroll and attendance management.

In the beginning, information technology today enhances many of the recruitment function's sub processes such as long and short-term candidate attraction, the generation, pre-screening, and processing of applications or the contracting and deployment of new hires. Online job advertisements on corporate web sites and internet job boards, online CV databases, different forms of electronic applications, applicant management systems, corporate skill databases, and IS supported workflows for the contracting phase are only few examples of the various ways by which information systems today support recruitment processes (Keim & Weitzel, 2009). HRIS can support long range planning with information for labor force planning and supply and demand forecast; staffing with information on equal employment, separations and applicant qualifications; and development with information on training programs, salary forecasts, pay budgets and labor/employee relations with information on contract negotiations and employee assistance needs (Shibly, 2011).

### **Types Of Human Resource Information Systems**

- ❖ **Operational Human Resource Information System:** Operational human resource information systems provide the manager with data to support routine and repetitive human resource decisions. A number of operational-level information systems collect the data relating to human resources including the information about the organization's positions, workforce and governmental

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regulations (Collins and Smith, 2006).

**(a). Employee Information Systems:** The human resource department must have the information of the organization's employees profile for taking various decisions. An employee profile includes personal and organization related information, such as name, address, sex, minority status, marital status, citizenship, years of service or seniority data, education and training, previous experience, employment history within the organization, salary rate etc. (Dessler, 2005).

**(b). Position Control Systems:** A job is usually defined as a group of identical positions. A position, on the other hand, consists of tasks performed by one worker. The purpose of this system is to identify each position in the organization, the job title, its classification and the currently assigned to the position to the employees. This system allows a human resource manager to identify the details about vacant positions in the organization (Beltran-Martin et al, 2008).

**(c). Applicant Selection and Placement Information Systems:** After manpower planning has been identified and a suitable pool of job candidates recruited, the candidates must be screened, evaluated, selected and placed in the various positions in the organization. The primary purpose of the applicant selection and placement information system is to assist human resource staff in these tasks (Beltran-Martin et al, 2008).

**(d). Performance Appraisal Information Systems:** The systems include performance related data and productivity information data. This data is used as evidence in employee grievance matters. Careful documentation of employee performance, method of measuring the performance of employees and reporting system is critical. Performance management information can lead to a number of decisions beyond merely supporting the operational decision to retain, promote, transfer, or terminate the employees in the organization (Ostermann et al, 2009).

❖ **Tactical Human Resource Information System:** Tactical information systems are used to provide managers with support for decisions related with allocation of resources. Major important decisions in human resource management include recruitment decisions; job analysis and design decisions, training and development decisions, and employee compensation plan decisions (Schuler et al, 2001).

**(a). Job Analysis and Design Information Systems:** This system includes data from interviews with supervisors and workers and positive action guidelines and information from sources external to the



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firm, such as labor unions, competitors, and government agencies. The outputs of the job analysis information system are job descriptions and job specifications which provide managers with the basis for many tactical human resource decisions (Huselid, 1995).

**(b). Information Systems for Recruitment:** For the recruiting function, the organization needs to develop a recruiting plan. The plan specifies the positions to be filled and the skills required of the employees for these positions. For this purpose, a recruiting information system is necessary which collects and processes the many different types of information like a list of unfilled positions; the duties and requirements of these positions; lists of planned employee retirements, transfers, or terminations; and summaries of employee appraisals. Other inputs to the recruiting plan include data about turnover rates and about the success of past placements (Ferris et al, 1998).

**(c). Compensation and Benefits Information Systems:** The Compensation and Benefits Information Systems support a variety of tactical human resource decisions, especially when compensation and benefits information is related to information from internal and external sources. Compensation and benefit plans can play an important part in improving an organization's productivity (Becker et al, 2001).

**(d). Training and Development Information Systems:** Training and development systems must meet the needs of jobs available in the organization as identified through the position control system and the job analysis and design system. The training should also be directed to the persons interested and it should benefit those (Becker et al, 2001)

❖ **Strategic HRIS:** Strategic HRIS helps the organization to implement strategic human resource management.

**(a). Information Systems for Workforce Planning:** Organization involved in long-term strategic planning, such as those planning to expand into new market areas, construct factories or offices in new locations and want to add new products, will need information about the quantity and quality of the available workforce to achieve their goals. Information systems that support workforce planning serve this purpose (Ferris et al, 1998).

**(b). Information Systems Supporting Labour Negotiations:** Negotiating with craft, maintenance, office, and factory unions requires information gathered from many of the human resource information systems. The human resource team completing the negotiating needs to be able to obtain numerous ad hoc reports that analyse the organization's and union's positions within the framework of both the

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industry and the current economic situation (Haag and Cummings, 2008).

**(c). Specialized Human Resource Information Systems Software:** A great deal of software has been specifically designed for the human resource function. This software is available for all types and sizes of computers, including microcomputers. Software specifically designed for the human resource management function, can be divided into two categories: comprehensive human resource information systems software and limited-function packages that support one or a few human resource activities (Huselid, 1995).

**(d). Comprehensive and Computerized HRIS:** In the last few years, the software industry has produced several products that organize the various human resource information systems into integrated software referred to as human resource information systems or HRIS software. In general, the computerization of HRIS has resulted in an integrated database of human resource files like position files, employee files, job analysis and design files and many other human resource files are constructed in a coordinated manner using database management systems software so that application programs can produce reports from any or all of the files (Karakanian, 2000).

**(e). Limited-function HRIS:** Numerous commercial software packages are sold for use on mainframes, minicomputers, and microcomputers that are designed to handle one or a small number of human resource functions. Microcomputer versions of these single-function software packages are relatively inexpensive and easy to operate and allow the human resource manager to automate a function quickly and easily (Beltran and Martin et al, 2008).

**(f). Training Software:** Many training software packages are available for all types and sizes of computers to provide online training for employees. They include; Management training software; sales training software; microcomputer training software; and word processing training software. These software packages can be used in computer-based training programmes designed by human resource department for training specific employees in group and independent study programmes. Computer-based training aids often simplify the trainer's job and allow the trainer to individualize instruction more easily than in traditional, group-based training classes (Dutton et al, 2006).

### **Human Resource Information System: Importance And Benefits**

Practically, organizations are urged to apply HRIS unless they are convinced of the benefits that this would bring to their organizations (Ngai and Wat, 2006). The most common benefits of HRIS include improved accuracy, the provision of timely and quick access to information, and the saving of costs. In a

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similar vein, Beckers and Bsat (2002) five reasons, which justify why organizations should use HRIS. These reasons related to the facts that HRIS helps organizations:

- (1) To increase competitiveness by developing and enhancing HR procedures and activities
- (2) To generate or create a greater range of HRM reports
- (3) To shift the role of HRM from transactions to SHRM
- (4) To reengineer the whole HRM/personnel department/section of organizations.
- (5) HRIS can be used to support strategic decision making, to evaluate programs or policies, or to support daily operating concerns.

Integrating the technologies of HRIS into traditional HR functions example; compensation, staffing and training etc. leads to some sort of reengineering of its processes. However, this process of change has created significant benefits to HR professionals such as;

**Increased Efficiency:** Rapid computing technology has allowed more transactions to occur with fewer fixed resources. Typical examples are payroll, flexible benefits administration, and health benefits processing. Though technologies of early mainframes provided significant efficiencies in these areas, the difference is that the record processing efficiencies that were once only available to large firms are now readily available to any organization size (Ulrich, 2001).

**Increased Effectiveness:** Most often, as with processes, computer technology is designed to improve effectiveness either by in terms of the accuracy of information or by using the technology to simplify the process. This is especially the case where large data sets require reconciliation. However, onerous manual reconciliation processes may be executed faster, but also with near perfect accuracy using automated systems.

**IT-Enabled Processes:** While many of the application areas' gains are through increased effectiveness and efficiency over manual processing, some are only possible using contemporary technologies. Most notably, computer-based (web-based) training is a growing area of HR practice that was not available until computer software was created. Even computer based training was not as practical as it is today because it was geographically dispersed until the training was upgraded from computer-based to web-accessible training.

### **Organizational Effectiveness**

Ogundele (2012) defined organization effectiveness as a totality of organization goodness, a sum of such

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elements as production, cost performance, turnover, quality of output, profitability, efficiency and the like. It is capacity to survive, adapt, maintain itself and grow; regardless of the particular functions it fulfills (Schein, 1983). Effectiveness is a broad concept and is difficult to measure in organizations (Daft, 2003). It takes into consideration a range of variables at both the organizational and departmental levels. It evaluates the extent to which the multiple goals of the organization are attained. It is difficult for managers to evaluate performance on goals that are not precise or measurable. However, performance measurement that is tied to strategy execution can help organizations reach their goals. Daft identified two major approaches to measurement of organizational effectiveness – the traditional and contemporary approaches. The traditional approaches include the goal approach, the system resource approach and the internal process approach. The goal approach to organizational effectiveness which this study considers is concerned with the outputs, whether the organization achieves its goals in terms of its desired level of outputs. This means that this approach identifies the organization's output goals and assesses how well they have been attained. It is based on the fact that organizations have goals they are expected to achieve. Organizational effectiveness is an abstract concept and is difficult for many organizations to directly measure. Instead of measuring organizational effectiveness directly, the organization selects proxy measures to represent effectiveness.

### **Determinants Of Organizational Effectiveness**

Nikitina (2008), identified the following variables often cited as determinants of organizational effectiveness: clarity of purpose, that is, clearly spelt out goals and objectives in terms of their clarity, prioritization and capacity for implementation; facilitative organizational culture; rational organization structure; rational organization processes; ability to acquire resources (financial, human); internal harmony; satisfaction of strategic constituencies both internal and external; ability to adjust and respond to dynamic changes and requirements of and in the environment; and transformational leadership; and clarity of purpose. Clarity of purpose is important to the success of any organization. Having clear goals and strategic direction will help provide a sense of where the organization is and where it is going. Goals are conceptions of desired ends. Most organizational scholars advice that organizations will be better placed to effectively achieve their intended outcomes if they set goals that are Specific, Measurable, Attainable, Realistic and Timely also referred to as SMART

**Facilitative Organizational Culture:** While well formulated organizational goals are important, it is an organization's culture that gives life to its goals and helps make their realization possible. According to International Development Research Centre (IDRC) (2006), culture is the sum total of the values, beliefs, customs, traditions and meanings related to goal fulfilment and developed over the history of an organization that make it unique, govern its character and drive the organization. Organizational culture

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can be a powerful motivating force which through embodying the values sanctioned by the organization, frames the boundaries of acceptable attitudes and behavior and creates a shared ethos. Culture can thus help determine the extent to which members of an organization will and are expected to extend themselves to fulfil tasks. Rational Organization Structure: It is difficult to get a proper definition of the term rationality as the concept can be applied to many different elements in human life. According to Wessels and Pauw (2003), the concept of rationality can be applied to persons, beliefs, decisions and procedures. In this light, a person is said to be rational when he takes decisions that promote the achievement of his goals; a belief is said to be rational if there is good reason to hold on to it or believe it; a decision is said to be rational if it contributes to the goals of the person(s) making it; and a procedure is said to be rational if it consistently contributes to the sought after results. Thus rationality when seen in terms of the four different scenarios above can be seen to refer to reasoning strategies that are effective for accomplishing goals. A rational organizational structure thus refers to a structure which is capable of accomplishing the goals the organization seeks to accomplish.

**Rational Organization Processes:** Organizational process are the internal management systems – the many mechanisms that guide interactions among people to ensure that on-going work is accomplished rather than hindered or blocked. These include planning, problem-solving/decision-making, communication, monitoring and evaluation (IDRC, 2006). Organizational experts often emphasize the link between effective planning and organizational effectiveness. In this regard, strategic planning in organizations is deemed to be critical as it sets the overall directions and, at operational levels, the process by which the organizational goal is translated into specific objectives and methodologies to accomplish goals.

**Ability to Acquire Resources:** Crucial to effective achievement of goals is the ability to acquire and manage resources. Cameron (1980), argues that the more of the needed resources an organization can obtain from its external environment, the more it is able to be effective in achieving its goals. Resources include staff, finance-money, and administrative resources (infrastructure and technology). Scott (1998), however, argues that of all the many resources required by organizations, the most vital are the contributions of its staff. Not only are these contributions themselves of infinite variety, they are also the ultimate means by which all other resources are acquired. It is thus important that an organization is able to attract the right and best people to enable it achieve its objectives. This in essence means that it has to provide good terms and conditions of service relative to similar organizations in its environment.

**Internal Harmony:** According to Cameron (1980), effective organizations are those with an absence of internal strain, whose members are highly integrated into the system, whose internal functioning is

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smooth and typified by trust and benevolence toward individuals, where information flows smoothly both vertically and horizontally, and so on. This scenario portrays an absence of conflict. Organizational experts admit that conflict is normal and part of everyday organizational life. However, although conflict can stretch our minds to see in new ways and create new solutions to vexing problems, it is also capable of producing chronic ineffectiveness in organizations if handled poorly.

**Satisfaction of Strategic Constituencies both Internal and External:** An organization is more likely to be effective in achieving its objectives if all of its strategic constituencies are at least minimally satisfied (Cameron, 1980). A strategic constituency is any group of individuals who have some stake in an organization. They could be internal for example employees, policy organs and Board of Directors or external, that is, those powerful groups outside the organization that have a significant impact on its functioning, for example shareholders and other stakeholders. With regard to employees, organizational analysts are in agreement that an organization's ability to effectively achieve its objectives depends in part on its ability to create an environment that motivates and stimulates its personnel. Organizations are thus encouraged to continuously seek ways to keep their staff motivated.

**Adaptability to Change:** Weick (1977) emphasizes this dimension when he insists that effective organizations are characterized by a diversity of linguistic forms, techniques for breaking out of normal cognitive and normative constraints, structural units that are loosely articulated so as to maximize sensitivity to the environment and diversity of response. In other words, institutions should not be too rigid if they wish to prosper in a volatile, uncertain, complex and ambiguous environment.

Transformational leadership: Yukl (1994), defines transformational leadership as the process of influencing major changes in the attitudes and assumptions of organizational members and building commitment for the organization's mission, objectives and strategies. In order to be transformational, Selznick (1957) specifies four major functions of top leaders. The first is to define the institutional (organizational) mission and role. The second task entails the institutional embodiment of purpose, which involves choosing the means to achieve the ends desired or ensuring that the structure reflects and is designed to accomplish the mission effectively. The third task is to defend the organization's integrity.

### Methodology

Saunders et al (2007), defines research design as the general plan of how the research questions would be answered. The research design for this study is the survey research design while data was gathered from both primary and secondary sources. However, the major instrument for data collection was a five point likert scale questionnaire titled human resource information system and organizational effectiveness

questionnaire (HRISandOE). The statistical tool used for data analysis is the MannWhitney test (U) using the 17.0 version of statistical package for social sciences (SPSS). The Mannwhitney test is expressed thus;

$$U_1 = R_1 - \frac{n_1(n_1 + 1)}{2}$$

Where  $R_1$  = Rank of the sample size,  $n_1$  = sample size while U = Mann Whitney test statistic

## Results and Discussion

### SPSSOutput For Hypothesis One

#### NPAR Tests

/M-W=HRISandSR BY RANKS (5 1)

/STATISTICS=DESCRIPTIVES

/MISSING ANALYSIS.

#### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HRISandSR	25	30.4000	17.40211	.00	67.00
RANKS	25	3.0000	1.44338	1.00	5.00

#### Mann-Whitney Test

#### Ranks

	RANKS	N	Mean Rank	Sum of Ranks
HRISandSR	1.00	5	3.00	15.00
	5.00	5	8.00	40.00
	Total	10		

#### Test Statistics<sup>a</sup>

	HRISandSR
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.611
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008 <sup>b</sup>

a. Grouping Variable: RANKS

b. Not corrected for ties.

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SPSS Output For Hypothesis Two

NPAR Tests

/M-W= HRIS and MC By Ranks (5 1)

/statistics=descriptives

/missing Analysis.

**Descriptive Statistics**

	N	Mean	Std. Deviation	Minimum	Maximum
HRISandMC	25	30.4000	16.67833	.00	58.00
RANKS	25	3.0000	1.44338	1.00	5.00

**Mann-Whitney Test**

**Ranks**

	RANKS	N	Mean Rank	Sum of Ranks
HRISandMC	1.00	5	3.00	15.00
	5.00	5	8.00	40.00
	Total	10		

**Test Statistics<sup>a</sup>**

	HRISandMC
Mann-Whitney U	.000
Wilcoxon W	15.000
Z	-2.619
Asymp. Sig. (2-tailed)	.009
Exact Sig. [2*(1-tailed Sig.)]	.008 <sup>b</sup>

a. Grouping Variable: Ranks

b. Not corrected for ties.

SPSS Output For Hypothesis Three

NPAR Tests

/M-W= HRISandCG By Ranks (5 1)

/statistics=descriptives

/missing Analysis.



### Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
HRISandCG	25	30.4000	14.42221	.00	60.00
RANKS	25	3.0000	1.44338	1.00	5.00

### Mann-Whitney Test

#### Ranks

	RANKS	N	Mean Rank	Sum of Ranks
	1.00	5	3.50	17.50
HRISandCG	5.00	5	7.50	37.50
	Total	10		

#### Test Statistics<sup>a</sup>

	HRISandCG
Mann-Whitney U	2.500
Wilcoxon W	17.500
Z	-2.108
Asymp. Sig. (2-tailed)	.035
Exact Sig. [2*(1-tailed Sig.)]	.032 <sup>b</sup>

a. Grouping Variable: RANKS

b. Not corrected for ties.

### Discussion Of Findings

In this study, the major finding revealed that human resource information system (HRIS) has significant impact on the effectiveness of organizations. This assertion is drawn from the output of the data generated after been subjected to statistical analysis with the Mann Whitney test (U).

Hypothesis one showed that HRIS has significant impact in determining the shareholder returns of the organizations under study as the level of significance was greater than the p-value ( i.e.  $0.05 > 0.008$ ). The output of hypothesis two proved that HRIS plays significant impact in determining the market competitiveness of Nigerian organizations as the null hypothesis was rejected in place of the alternative, this is because the level of significance is higher than the p-value (i.e.  $0.05 > 0.008$ ). Hypothesis three result showed that HRIS plays significant role in determining the corporate growth of the organizations under study as the alternative hypotheses was accepted in place of the null hypotheses as a result of the p

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-value being lesser than the level of significance (i.e.  $0.032 < 0.05$ ). These findings are in consonance with James et al (2014), when in their study they developed a positive link between the financial performance of firms and HRIS adoption. This study however is different from most studies especially the ones reviewed in this work as they focused on the internal constituency of firm performance while this study has its focus more on the external constituency of firm performance

## **Conclusion**

This study concludes that HRIS has significant impact on the ability of organizations to attain increased productivity, enhanced satisfactory shareholder's return, improved competitiveness and sustainable corporate growth. Furthermore, the study asserts that organizations that must be effective must create a platform for proper integration of their human resource information into the mainstream of their strategy formulation in all spheres since it is the human resource that sees to strategy and programme implementations which is key to organizational effectiveness

## **Recommendations**

Sequel to the findings and conclusions above, the following recommendations were made by the researcher;

- (1) To ensure that HRIS contributes to enhanced productivity, employees especially those in should be trained on regular basis in order to acquaint them with relevant information and skills to face the changing organizational environment
- (2) The cost of maintaining HRIS structures in the organization should be controlled in order to ensure that it does not negate the competitiveness of the organization.

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