

EFFECTS OF INFORMATION TECHNOLOGY ON ORGANIZATIONAL PERFORMANCE WITH REFERENCE TO MTN IN ENUGU STATE

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Abstract

This study was on the effect of information technology on organizational performance with reference to MTN in Enugu State. The objectives of the study were to find out the extent IT has affected competitive advantage on MTN in Enugu, to ascertain the effect of Information Technology (IT) on the services offered by MTN in Enugu State, to determine the relationship between IT and efficiency of MTN in Enugu State and to investigate the effect of IT on profitability of MTN in Enugu State. The population of the study was 104 while the sample size was 83. It was determined by using the Taro Yamane's formula. The sources of data were both primary and secondary sources. The hypotheses were tested using the chi-square statistical tool. The findings are: that it has affected competitive advantage on MTN in Enugu State to a large extent as the calculated value (101.95) is > the critical value (9.49), IT has a positive effect on the services offered by MTN in Enugu State as the calculated value (35.99) is > the critical value, IT has a significant relationship with efficiency of MTN in Enugu State as the calculated value (27.72) is > the critical value (9.49) and it has a positive effect on profitability as the calculated value (411.81) is > the critical value (0.09). The researcher concluded that it has a positive effect on organizational performance. The researcher concluded that IT has a positive effect on organizational performance. The study recommended that management of organizations should provide their employees with the necessary facilities needed for effective IT implementation, management of organizations should always send their workers on IT training as there are benefits of effective adoption of IT and management of service oriented, industries should improve their profitability through effective IT.

Keywords: Information, Technology, Organizational Performance, MTN

INTRODUCTION

The term Information Technology (IT) evolved in the 1970s. Although its basic concept, however, could be traced back to the world war II alliance of the military and industry in the

development of electronics, computers and information theory (Bello, 2014). After the 1940s, the military remained the major source of research and development funding for the expansion of automation to replace manpower with machine power. Since the 1950s, four generations of computers have evolved. Each generation reflected a change to hardware of decreased size but increased capabilities to control computer operations. The first generation used vacuum tubes, the second used transistors, the third used integrated circuits and the fourth used integrated circuits on a single computer chip while advance in artificial intelligence that minimized the need for complex programming characterized the fifth generation of computers. Wajid (2015), posits that IT has drastically changed the business landscapes and has within a very short time, become one of the basic building blocks of modern industrial society. Adeyinka (2013), Opines that the goal of every information systems, based in any organization is to improve performance on the job and this performance is only achieved when IT is accepted and used warmly by the concerned employees in organizations. Information and communication technology benefits the business world by allowing organizations to work more efficiently and to maximize productivity. Faster communication, electronic storage and the protection of records are advantages that IT can have on an organization.

Furthermore, Shola (2016), asserts that in business, people look for ways to do more work in a shorter period. Information Technology improves a company's efficiency by developing automated processes to take off burden from the employees. In turn, employees are free to work on other things while the computer runs their reports, creates queries, tracks projects and monitor finances. Moreover, Akintola (2014), states that IT gives the employees remote access to their company's electronic network, so that they can work from home or on the road. This accessibility allows the employees to increase their productivity because they can still get work done, even when they are not physically present in the office. IT is essential to the business world, and information and communication technology gives the organization the sources it needs to communicate quickly and effectively. The IT department can hook the employees up with email, video conferencing equipment and internal chat rooms, so that they can always have an efficient way to conduct business and communicate among themselves.

However, apart from the benefits inherent in adopting information technology, in business organizations the start up cost and the cost of training the employees may be some challenges, coupled with the fact that it could lead to job elimination. It is based on this backdrop, that this research examined effect of IT on organizational performance with Mobile Telecommunication Network (MTN) as a case study.

Statement of the Problem

Lack of effective adoption of IT can make an organization loose competitive advantage. The telecommunication industry is a highly competitive one with different companies trying to outshine one another. Lack of effective adoption of IT can also make an organization experience decline in the quality of services provided. This is because of the numerous benefits IT can offer to an organization, like its usage in attracting many customers far and wide and also in enhancing customer services. Moreover, lack of effective adoption of IT can make an organization loose vital materials and IT is known to be useful in storing data and easy retrieval of such data. Any company that does not utilize effective IT could likely experience poor services to the customers. Decline in efficiency is another effect of not adopting IT in an organization. Companies that have

integrated IT in their day-to-day business are known to be more efficient than others.

Finally, lack of effective adoption of IT could also lead to decline in the profitability of an organization. IT adoption is known to have a significant relationship with net profit of an organization.

Review of Related Literature

Effect of Information Technology on Organizational Performance

There are so many effects of IT on organizational performance. They include:

- a. **Efficiency:** Streamlined work flow systems, shared storage and collaborative work spaces can increase efficiency in a business and allow employees to process a greater level of work in a shorter period of time. Information technology systems can be used in automatic routine tasks, to make data analysis easier and to store data in a manner that can easily be retrieved for future use. Technology can also be used to answer customer questions through email, in a real-time chat session or through a telephone routing system that connects a customer to an available customer service agent.
- b. **Competitive Advantage:** Udell (2015), states that adoption of ICT resources allows companies to maintain a competitive advantage over their rivals. Companies using a first movers strategy can use information technology to create new products, distance their products from the existing market or enhance their customer services. Companies that follow a low cost product strategy can look to information technology solutions to reduce their costs through increased productivity and reduced need for employee overhead. Businesses can also build in information technology to their products that makes it difficult for customers to switch platforms or products.
- c. **Cost Reduction:** Companies can harness information technology resources to lower their costs. Using IT infrastructure, redundant tasks can be centralized at one location. For example, a large company could centralize their payroll function at one location to lower employee costs. Economic efficiencies can also be realized by migrating high cost functions into an online environment. Companies can offer emails support for customers that may have a lower cost than a live customer support call. Cost savings could also be found through outsourcing opportunities, remote work options and lower cost communication options.

CHALLENGES MILITATING AGAINST THE ADOPTION OF IT IN MTN ENUGU STATE

There are many challenges militating against the adoption of IT in Nigerian organizations. They include:

- a. **Insufficient Telecommunication Infrastructures:** There is shortage of telecommunication infrastructures in Nigeria leading to congestion in various networks being used in the country the problem has been so frustrating that in many business organizations, we hear of no network, making it difficult for such organizations to have access to internet.
- b. **Funding:** This is yet another problem militating against IT adoption in Nigerian organizations. Some organizations may not be financially buoyant to procure IT facilities like computer etc.
- c. **Corruption:** Henry (2016), asserts that some organizations in Nigeria have in one time or the other earmarked some money for procurement of IT facilities, but most at times, these monies

are being diverted into people's private account.

d. Poor Maintenance Culture: Another problem that has stood on the way of IT adoption, is poor maintenance culture. This problem has found its root in Nigeria, for many decades. As a matter of fact, Nigerian government and organizations have set up some projects, only for those projects to be abandoned. The same is applicable in IT adoption.

e. Insufficient Human Resource Development: It is disheartening that even in this computer age, many Nigerians are still not computer literate. In the words of Kinnear (2015), the inability of many organizations in Nigeria to develop their human resource has been a challenge to IT adoption in many of these organization.

f. Fear of Loss of Job: The fear of loss of job has also been instrumental to the inability of many organizations to adopt IT. Some employees who are not computer literate have stood on the way of IT adoption in their organization leading to such dreams, not seeing the light of the day.

g. Lack of policy that will facilitate the easy integration of ICT across the country: This is yet another problem militating against the adoption of IT in Nigerian organizations. Government have not really formulated effective policies that will make it easier for effective IT adoption in Nigeria.

h. Epileptic Power Supply: This problem has been a long standing problem in Nigeria. Ademola (2013), asserts that successive government in Nigeria have tried to solve this problem of epileptic power supply all to no available and billions of Naira have equally been sunk into projects aimed at providing constant power supply in Nigeria. Information and communication technology cannot function properly in a country where there is epileptic power supply.

PROSPECTS OF IT ADOPTION IN MTN, ENUGU STATE

- (a) **Infrastructure Development:** Chukwu (2011), stated that the government of Nigeria is beginning to realize the importance of IT in the development of the nation. Hence, attention has been shifting on the provision and development of IT facilities.
- (b) **Human Resource Development:** Many organizations are beginning to pay attention towards the development of their human resources. The employees are getting the opportunity to go for IT train and this has brought a new lease of life in to such organizations.
- © **Research and Development:** Government, have realized the importance of research in IT development in Nigeria. Hence, huge amount of money is also been sunk into this effect in Nigeria.
- (d) **Provision of IT Skill Acquisition Centres:** Both government, private organizations and non-governmental organizations are beginning to set up IT skill acquisition centres. This is because these organizations have realized the importance of having many Nigerian literate in IT, especially in the area of computer literacy.

Concept of Organizational Performance

Performance can be defined as the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost and speed. Seashore (2015), states that performance is the ability to exploit the enterprise environment and scarce resource to purchase its essential functions. The criteria for assessing performance are turnover, production costs, productivity, growth, market penetration etc. organizational performance is a concept whose dimensions have changed with the growing competitiveness and complexity of the economic environment in which the business operate. However, from the above, we can conclude that the

term performance has a number of defining features, which according to Seacara (2014), include:
a. Universal: The term performance is used in all economic fields to characterize the results of a particular type of activity.

b. Concreteness: Performance at the microeconomic level is a concept measured by various indicators. Abstract character appears only if the general assessment is made at the macroeconomic level.

c. Relativity: Economic performance is expressed in relative size through the deviation efficiency productivity. The concept of organizational performance is based on the idea that an organization is a voluntary association of productive assets that include human, physical and capital resources for the purpose of achieving shared objectives.

8. Theoretical Framework

There are so many theories on the effect of IT on organizational performance, but this study adopted the technology acceptance model, united theory of acceptance and use of technology, model of IT implementation process and diffusion of innovation theory.

a. Technology Acceptance Model

This theory was proposed by Davis in 1989. It explains what causes potential adopters to accept or reject the use of IT. In the model two theoretical constructs, perceived usefulness and perceived ease of use are the fundamental determinants of system use. Perceived usefulness refers to the degree to which a person believes that using a particular system would enhance his or her job performance and perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort.

Methodology

Research Design

The research method adopted by the researcher was the survey method of research. Ikeagwu (1988), posits that survey research method involves gathering information from the respondents through instruments like questionnaire or interview. The researchers adopted the survey method because of its relative merit of wide coverage and less expenses. The researchers studied the members of staff of Mobile Telecommunication Network (MTN), Zik Avenue branch Enugu.

Data for the study were collected by the use of the questionnaire. The researchers used structured or closed-ended questionnaire. The questionnaire was divided into two sections. Section A and Section B. section A dealt with the Bio-data of the respondents while section B dealt with question items designed along research objectives. The researchers used the expert (face) validity, where the supervisor, who is an expert in the field, cross checked the question items to make sure they are in line with the research questions. The researchers used test re-tests method. After two weeks of questionnaire administration a second test was read ministered to the same test group. This is to ascertain the consistency in the first and second responses. However, there was consistency in the responses provided by the respondents. The result of the test is = 0.93. The value 0.93 is close to 1.0, hence we can conclude that 1st scores and the 2nd text scores agree very much with each other in their ranking.

Data Presentation and Analysis

The data presented in this section were obtained with the aid of the questionnaire. The distribution and return of questionnaire is as follows:

Distribution and Return of Questionnaire

Cadre	Number of Questionnaire Distributed	Number of Questionnaire Returned	Number of Questionnaire Lost	% of Valid Questionnaire
Management	3	2	1	4
Senior	21	19	2	23
Junior	58	53	5	64
Total	82	74	8	82

Total of 3 copies of questionnaire distributed to the Management Cadre of MTN Zik Avenue Branch. 1 copy was lost, while 2 copies representing 4% of the total copies were returned. Out of a total of 21 copies of questionnaire distributed to the Senior Cadre of MTN Zik Avenue Branch, 2 copies were lost while 19 copies representing 23% of the total copies were returned. Out of 58 copies of questionnaire distributed to the Junior Cadre of MTN Zik Avenue Branch, 5 copies were lost while 53 copies representing 64% of the total copies were returned. Therefore the total number of valid questionnaire is 75 copies representing 91% of the total copies of questionnaire distributed.

Research Question One: To what extent has IT affected competitive advantage of MTN in Enugu State?

Distribution of Respondents on whether IT has affected competitive advantage of MTN in Enugu State

RESPONSES	FREQUENCY	PERCENTAGE
Strongly agree	49	65
Agree	18	24
Undecided	10	7
Disagree	3	3
Strongly disagree	2	1
Total	82	100

This Table shows that 49 respondents, representing 65% strongly agree that IT has affected competitive advantage of MTN in Enugu State, 18 respondents representing 24% agree, 10 respondents representing 7% were undecided, 3 respondents representing 3% disagree while 2 respondent representing 1% strongly disagree.

Research Question Two: What is the effect of IT on the services offered by MTN in Enugu State?

Distribution of Respondents on whether IT has a positive effect on the services offered by MTN in Enugu State

RESPONSES	FREQUENCY	PERCENTAGE
Strongly agree	56	68
Agree	19	23
Undecided	4	5
Disagree	2	3
Strongly disagree	1	1

Total **82** **100**

This shows that 56 respondents, representing 68% strongly agree that IT has a positive effect on the services offered by MTN in Enugu State, 19 respondents representing 23% agree, 4 respondents representing 5% were undecided, 2 respondents representing 3% disagree while 1 respondent representing 1% strongly disagree.

Research Question Three: What is the relationship between IT and efficiency of MTN in Enugu State?

Distribution of Respondents on whether IT has a significant relationship with efficiency of MTN in Enugu State

RESPONSES	FREQUENCY	PERCENTAGE
Strongly agree	53	64
Agree	20	24
Undecided	4	5
Disagree	3	4
Strongly disagree	2	3
Total	75	100

This shows that 53 respondents, representing 64% strongly agree that IT has a significant relationship with efficiency of MTN in Enugu State, 20 respondents representing 24% agree, 4 respondents representing 5% were undecided, 3 respondents representing 4% disagree while 2 respondents representing 3% strongly disagree.

Distribution of Respondents on whether IT has a positive effect on profitability of MTN in Enugu State

RESPONSES	FREQUENCY	PERCENTAGE
Strongly agree	51	61
Agree	18	24
Undecided	7	6
Disagree	4	4
Strongly disagree	2	3
Total	82	100

This shows that 51 respondents, representing 61% strongly agree that IT has a positive effect on profitability of MTN in Enugu State, 18 respondents representing 24% agree, 7 respondents representing 6% were undecided, 4 respondents representing 4% disagree while 2 respondents representing 3% strongly disagree.

Test of Hypotheses

a. Test of Hypothesis One

H₀: IT has not affected competitive advantage of MTN in Enugu State to a large extent

H₁: IT has affected competitive advantage of MTN in Enugu State to a large extent

Distribution of Respondents on whether IT has affected competitive advantage of MTN in Enugu State.

RESPONSES	FREQUENCY	PERCENTAGE
Strongly agree	54	65
Agree	20	24
Undecided	5	7
Disagree	2	3
Strongly disagree	1	1
Total	82	100

Contingency Table for Hypothesis One showing the observed and expected frequency

Response/Cadre	Management	Senior	Junior	Total
SA	2(1.96)	11(12.41)	36(34.63)	54
A	1(0.72)	7(4.56)	10(12.72)	20
U	0(0.2)	1(1.26)	4(3.35)	5
D	0(0.08)	0(0.50)	2(1.41)	2
SD	0(0.04)	0(0.25)	1(0.01)	1
Total	4	20	58	82

The expected frequency (ei) is given by the formula

$$\frac{r_t \times c_t}{g_t}$$

Where

r_t = row total

c_t = column total

g_t = grand total

The degree of freedom is given by the formula (r-1) (c-1). In this table r = 5 while c = 3.

Therefore, (r-1) (c-1) = (5-1) (3-1) which is equal to 4x2 = 8 degree of freedom

Constructing the test statistics, we have

i	ei	Oi-ei	(Oi -ei) ²	(Oi -ei) ² /ei
2	1.96	0.04	0.002	0.0008
11	12.41	-1.41	1.99	0.16
36	34.63	1.37	1.88	0.05
1	0.72	0.28	0.08	0.11
7	4.56	2.44	5.95	1.31
10	12.72	-2.72	7.40	0.58
0	0.2	-0.02	0.0004	0.2
1	1.26	-0.26	0.07	0.05
4	3.53	0.47	0.22	0.06
0	0.08	-0.08	0.006	0.08
0	0.50	-0.5	0.25	0.50
2	1.41	0.59	0.35	0.25
0	0.04	-0.04	0.002	0.04
0	0.25	-0.25	0.06	0.25
1	0.01	0.99	0.98	98.01

101.95

The calculated value is equal = 101.95

The degree of freedom is given by the formula $(r-1)(c-1)$. In this table $r = 5$ while $c = 4$. Therefore, $(r-1)(c-1) = (5-1)(3-1)$ which is equal to $4 \times 2 = 8$ degree of freedom.

The level of significance is = 0.05. The critical value at 8 degree of freedom and 0.05 level of significance is = 15.51.

Decision: Since the calculated value is greater than the critical value, the researcher accepted the alternative hypothesis which states that IT has affected competitive advantage of MTN in Enugu State to a large extent.

b. Test of Hypothesis Two

H_0 : IT does not have a positive effect on the services offered by MTN in Enugu State

H_1 : IT has a positive effect on the services offered by MTN in Enugu State

Distribution of Respondents on whether IT has a positive effect on the services offered by MTN in Enugu State.

RESPONSES	FREQUENCY	PERCENTAGE
Strongly agree	56	68
Agree	19	23
Undecided	4	5
Disagree	2	3
Strongly disagree	1	1
Total	82	100

Contingency Table for Hypothesis One showing the observed and expected frequency

Response/Cadre	Management	Senior	Junior	Total
SA	2(2.04)	13(12.92)	36(36.04)	51
A	1(0.68)	6(4.31)	10(12.01)	17
U	0(0.16)	1(1.26)	4(3.35)	4
D	0(0.08)	0(0.51)	2(1.41)	2
SD	0(0.04)	0(0.25)	1(0.71)	1
Total	3	19	53	75

The expected frequency (e_i) is given by the formula

$$\frac{r_t \times c_t}{g_t}$$

Where

r_t = row total

c_t = column total

g_t = grand total

The degree of freedom is given by the formula $(r-1)(c-1)$. In this table $R = 5$ while $C = 3$.

Therefore, $(r-1)(c-1) = (5-1)(3-1)$ which is equal to $4 \times 2 = 8$ degree of freedom

Constructing the test statistics, we have

$$\frac{(O_i - e_i)^2}{e_i}$$

2	2.04	-0.04	0.002	0.0008
13	12.92	-0.08	0.006	0.005
36	36.04	-0.04	0.002	0.00004
1	0.68	0.32	0.102	0.15
6	4.31	1.69	2.86	0.66
10	2.01	7.99	63.84	31.76
0	0.16	-0.016	0.03	0.16
0	1.01	-1.01	1.02	1.01
4	2.83	1.17	1.37	0.48
0	0.08	-0.08	0.064	0.08
0	0.51	-0.51	0.26	0.51
2	1.41	0.59	0.35	0.25
0	0.04	-0.04	0.0016	0.04
0	0.25	-0.25	0.063	0.25
1	0.71	0.29	0.08	0.11
				35.99

The calculated value is equal = 35.99

The degree of freedom is given by the formula $(R-1)(C-1)$. In this table $R = 5$ while $C = 4$. Therefore, $(r-1)(c-1) = (5-1)(3-1)$ which is equal to $4 \times 2 = 8$ degree of freedom.

The level of significance is = 0.05. The critical value at 8 degree of freedom and 0.05 level of significance is = 15.51.

Decision: Since the calculated value is greater than the critical value, the researcher accepted the alternative hypothesis which states that IT has a positive effect on the services offered by MTN in Enugu State.

c. Test of Hypothesis Three

H_0 : IT does not have a significant relationship with efficiency of MTN in Enugu State.

H_1 : IT has a significant relationship with efficiency of MTN in Enugu State.

Distribution of Respondents on whether IT has a significant relationship with efficiency of MTN in Enugu State.

ESPONSES	FREQUENCY	PERCENTAGE
Strongly agree	53	64
Agree	20	24
Undecided	4	5
Disagree	3	4
Strongly disagree	2	3
	82	100

Contingency Table for Hypothesis One showing the observed and expected frequency

Response/Cadre	Management	Senior	Junior	Total
SA	0(1.92)	10(12.16)	38(33.92)	48
A	1(0.72)	7(4.56)	10(12.72)	18
U	2(0.16)	0(1.01)	2(2.82)	4
D	0(0.12)	1(0.76)	2(2.12)	3
SD	0(0.08)	1(0.72)	1(1.41)	2
Total	3	19	53	75

The expected frequency (e_i) is given by the formula

$$\frac{r_t \times c_t}{g_t}$$

Where

r_t = row total

c_t = column total

g_t = grand total

The degree of freedom is given by the formula $(r-1)(c-1)$. In this table $r = 5$ while $c = 3$.

Therefore, $(r-1)(c-1) = (5-1)(3-1)$ which is equal to $4 \times 2 = 8$ degree of freedom

Constructing the test statistics, we have

O _i	e _i	O _i -e _i	(O _i - e _i) ²	(O _i - e _i) ² /e _i
0	1.92	-1.92	3.69	1.92
10	12.16	-2.16	4.67	0.38
38	33.92	4.08	16.65	0.49
1	0.72	0.28	0.08	0.11
7	4.56	2.44	5.95	1.31
10	12.72	-2.72	7.40	0.58
2	0.16	1.84	3.39	21.16
0	1.01	-1.01	1.02	1.01
2	2.82	-0.82	0.67	0.24
0	0.12	-0.12	0.0144	0.12
1	0.76	0.24	0.06	0.08
2	2.12	0.12	0.0144	0.007
0	0.08	-0.08	0.0064	0.08
1	0.72	-0.28	0.08	0.11
1	1.41	-0.41	0.17	0.12
				27.72

The calculated value is equal = 27.72

The degree of freedom is given by the formula $(R-1)(C-1)$. In this table $R = 5$ while $C = 4$. Therefore, $(r-1)(c-1) = (5-1)(3-1)$ which is equal to $4 \times 2 = 8$ degree of freedom.

The level of significance is = 0.05. The critical value at 8 degree of freedom and 0.05 level of significance is = 15.51.

Decision: Since the calculated value is greater than the critical value, the researcher accepted the alternative hypothesis which states that IT has a significant relationship with efficiency of MTN in Enugu State.

d. Test of Hypothesis Four

H_0 : IT does not have a positive effect on profitability of MTN in Enugu State.

H_1 : IT has a positive effect on profitability of MTN in Enugu State

Hypothesis four was tested using data in table 4.11

Distribution of Respondents on whether IT has a positive effect on profitability of MTN in Enugu State.

RESPONSES	FREQUENCY	PERCENTAGE
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Strongly agree	51	61
Agree	18	24
Undecided	7	6
Disagree	4	4
Strongly disagree	2	3
Total	82	100

The Contingency Table for Hypothesis One showing the observed and expected frequency

Response/Cadre	Management	Senior	Junior	Total
SA	1(1.84)	10(11.65)	35(32.51)	51
A	0(0.64)	6(4.05)	10(11.31)	18
U	2(0.28)	0(1.77)	0(4.95)	7
D	0(0.16)	2(1.01)	2(2.83)	4
SD	0(0.08)	1(0.51)	1(1.41)	2
Total	3	19	50	82

The expected frequency (ei) is given by the formula

$$\frac{r_t \times c_t}{g_t}$$

Where

r_t = row total

c_t = column total

g_t = grand total

The degree of freedom is given by the formula (r-1) (c-1). In this table r = 5 while c = 3.

Therefore, (r-1) (c-1) = (5-1) (3-1) which is equal to 4x2 = 8 degree of freedom

Constructing the test statistics, we have

O_i	e_i	O_i-e_i	(O_i -e_i)²	(O_i -e_i)²/e_i
1	1.84	-0.84	0.71	0.38
10	11.65	-1.05	1.10	0.09
35	32.51	2.49	6.20	0.19
0	0.64	-0.64	0.41	0.64
6	4.05	1.95	3.80	0.94
10	11.31	-1.31	1.72	0.15
2	0.28	1.72	2.96	10.57
0	1.77	-1.77	3.13	1.77
5	4.95	0.05	0.0025	0.00051
0	0.16	-0.16	0.026	0.16
2	0.01	1.99	3.96	396.01
2	2.83	-0.83	0.69	0.24
0	0.08	-0.08	0.0064	0.08
1	0.51	-0.49	0.24	0.47

1	1.41	-0.41	0.17	0.12
				411.81

The calculated value is equal = 411.81.

The degree of freedom is given by the formula (R-1) (C-1). In this table R = 5 while C = 4. Therefore, (r-1) (c-1) = (5-1) (3-1) which is equal to $4 \times 2 = 8$ degree of freedom.

The level of significance is = 0.05. The critical value at 8 degree of freedom and 0.05 level of significance is = 15.51.

Decision: Since the calculated value is greater than the critical value, the researcher accepted the alternative hypothesis which states that IT has a positive effect on profitability of MTN in Enugu State.

Discussion of Findings

Discussion of findings on whether IT has affected competitive advantage

IT has affected competitive advantage of MTN in Enugu State to a large extent. The statement was confirmed to be true in the test of hypothesis four and review of related literature. The evidence is shown in the calculated value (101.95) which is greater than the critical value (15.51). In the empirical review, Yinka (2010) carried out a research on whether IT has affected competitive advantage of MTN in Enugu State to a large extent. It was found that IT has affected competitive advantage of MTN in Enugu State to a large extent.

Discussion of findings on whether IT has a positive effect on the Services offered

IT has a positive effect on the services offered by MTN in Enugu State. The statement was confirmed to be true in the test of hypothesis four and review of related literature. The evidence is shown in the calculated value (35.99) which is greater than the critical value (15.51). In the empirical review, Murray (2009) carried out a research on whether IT has a positive effect on the services offered by MTN in Enugu State. It was found that IT has a positive effect on the services offered by MTN in Enugu State.

Discussion of findings on whether IT has a significant relationship with efficiency of MTN in Enugu State

IT has a significant relationship with efficiency of MTN in Enugu State. The statement was confirmed to be true in the test of hypothesis four and review of related literature. The evidence is shown in the calculated value (27.72) which is greater than the critical value (15.51). In the empirical review, Adebawale (2013) carried out a research on whether IT has a significant relationship with efficiency of MTN in Enugu State. It was found that IT has a significant relationship with efficiency of MTN in Enugu State.

Discussion of Findings on IT has a positive effect on profitability

IT has a positive effect on profitability of MTN in Enugu State. The statement was confirmed to be true in the test of hypothesis four and review of related literature. The evidence is shown in the calculated value (411.81) which is greater than the critical value (15.51). In the empirical review, Adeyemi (2011) carried out a research on whether IT has a positive effect on profitability of MTN in Enugu State. It was found that IT has a positive effect on profitability of MTN in Enugu State.

Summary of Findings

- a. IT has affected competitive advantage of MTN in Enugu State to a large extent. From the tested hypothesis one $\chi^2 (4, n = 75) = 101.95, P = 0.05$. Therefore, the research accepted

- the alternate hypothesis.
- b. IT has a positive effect on the services offered by MTN in Enugu State. From the tested hypothesis two $\chi^2 (4, n = 75) = 35.99, P = 0.05$. Therefore the research accepted the alternate hypothesis.
 - c. IT has a significant relationship with efficiency of MTN in Enugu State. From the tested hypothesis three $\chi^2 (4, n = 75) = 27.72, P = 0.05$. Therefore the research accepted the alternate hypothesis.
 - d. IT has a positive effect on profitability of MTN in Enugu State. From the tested hypothesis three $\chi^2 (4, n = 75) = 411.81, P = 0.05$. Therefore the research accepted the alternate hypothesis.

Conclusion

In business, people look for ways to do more work in a shorter period. IT improves a company's efficiency by developing automated processes to take off burden from the employees. IT gives the employees remote access to their company's electronic network, so that they can work from home or on the road. This accessibility allows the employees to increase their productivity because they can still get work done, even when they are not physically present in the office. IT is essential to the business world and it gives organizations the resources it needs to communicate quickly and effectively. The study therefore concludes that IT has a positive effect on organizational performance.

Recommendations

Based on the findings, the researchers recommend that:

- a. Management of organizations should provide their employees with the necessary facilities needed for effective IT implementation.
- b. Management of organizations should always send their workers on IT training as there are benefits of effective adoption of IT.
- c. Organizations should try to overcome the challenges militating against effective adoption of IT.
- d. Management of service oriented industries should improve their profitability through effective IT.

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