

## IMPACT OF ELECTRONIC PAYMENT SYSTEM IN ABAKALIKI URBAN OF EBONYI STATE, NIGERIA AND ITS IMPLICATIONS ON THE ACHIEVEMENT OF THE MILLENNIUM DEVELOPMENT GOALS

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### ABSTRACT

*This study investigated the contributions of Electronic payment to the achievement of the Millennium Development Goals as well as the challenges to the use of E-payment. Two research questions and two hypotheses guided the study. The population of the study comprised of both junior and senior staff qualified bankers in four selected commercial banks in Abakaliki Urban. A structured questionnaire was administered to 50 respondents with 44 copies filled correctly and returned. The research questions were answered using mean and standard deviation while the hypotheses were tested using t- test. All the items in the questionnaire were agreed to be the contributions of e-payment to the achievement of the millennium development goals while three items were accepted as challenges to the use of e-payment in commercial banks. The test of hypothesis showed no significant difference on their responses based on cadre and gender. The researchers based on their findings concluded that e-payment is making an impact in the achievement of the millennium development goals and recommended that the banks should improve on their facilities to reduce the challenges experienced during the use of e-payment system. The implications of the study are that Nigerians should be properly educated on the need to make payments using electronic technology to reduce the incidence of cash robbery and electronic banking system hence should be part of the curriculum in all levels of education.*

**Keywords:** *E-payment, millennium, development, and banks.*

### 1. BACKGROUND

The millennium development goals as a brain child of United Nations millennium summit targets to encourage international development through global partnership. Olajide (2008) noted that the millennium development goals were established following the adoption of the United Nations millennium declaration in September, 2000 at the largest ever gathering of heads of states and government. He explained that millennium development goals are part of the efforts by world leaders in finding solutions to poverty, child mortality, diseases, death, destruction, inequality and other manner of economic cum development problems facing majority of the countries in the world. The United Nations member states at the summit had series of meetings and came out with these eight focal points:

1. Eradication of extreme poverty and hunger
2. Achievement of universal primary education

3. Promotion of gender equality and women empowerment
4. Reduction of child mortality
5. Improvement of maternal health
6. Combat Hiv/Aids, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development.

The giant stride in achieving these MDGs can only be achieved with suitable financial management. Adequate financial management is enhanced by availability and accessibility of cash whenever it is needed by an individual or groups through electronic payment system. According to the Institute for Prospective Technological Studies, SERVILLE (1999) Electronic payment systems refer to situations or systems where the processing of payment instructions is carried out by the banking system electronically. E – Payment reduces the amount of cash outside the banking system. This will usher in a

more effective monetary policy management that will bring about stability in prices and interest rates (Global Insight Inc. and Visa, 2003). The following are the forms of e-payment: Automated Teller Machine (ATM); Electronic purses/wallets; Electronic funds transfer at point of sale; credit cards; debit cards; smart cards; mobile money transfer, internet payment and electronic cheque etc.

E-payment in Nigeria was done initially to eliminate the unacceptable delay in the payment of government contractors by minimizing interaction between contractors and government officials who have a role to play in the payment system. This was later extended to cover all payments from any government fund effective 1<sup>st</sup> January, 2009 (Asaolu, Ayoola and Akinkoye 2011). The use of e-payment has facilitated the operation of e-commerce.

Electronic commerce is now acting as a means of carrying out business transactions through electronic means as internet connections (Arik and Pathian, 2002) E-commerce facilitates trading in a global form by buying and selling of goods and services making payments through the exchange of information from computer to computer. Prior to the introduction of electronic payment, Nigerians in making payments for the transactions carried out experienced long distance travel to go to banks and pay money into the account especially rural dwellers. Many armed robbery attacks were witnessed in the process of movement of cash from one location to the other. In the banks, customers experienced long queues thereby wasting the time the customer should have used to attend to other needs. Payment of utility bills, school fees, hospital bills, transfer of money from one place to another was cumbersome.

In Nigeria, cheques used as a means of checking safety of cash and other problems experienced by the customers could not reduce the incidence of wasting time in the banking hall and other problems experienced by customers hence has contributed minimally to the growth of commerce in Nigeria. This is based on the challenges experienced as a result of irregular signatures, issuance of dud or stale cheques. This increases the level of stress experienced by the customers. Contractors and civil servants were made to stand in long queues for them to receive their salaries or pay for the goods supplied or contract works carried out. Students in tertiary institutions equally experienced the stress as a result of delay in transfer of money into their account, and withdrawal of cash from their account. Sometimes

they stand in a queue for hours waiting to be attended to by a cashier in the bank. The introduction of e-payment seems to have reduced the stress experienced by the customers when they visit the banks. With the use of Automated Teller Machines (ATM), payments and receipts of cash can easily be made using electronic means. Transfer of funds was made a lot easier with the introduction of e-payment hence reducing the incidence of armed robbery. This is obtainable in some places in Nigeria but some bank customers in Abakaliki Urban are yet to appreciate the impact of e-payment in management of their financial resources.

## 2. PROBLEM STATEMENT

The eight (8) point agenda introduced in the millennium development goals are aimed at eradication of extreme poverty and hunger, achievement of universal primary education, promotion of gender equality, and women empowerment, reduction of child mortality, improve maternal health, combat HIV/AIDS, malaria and other diseases, ensure environmental sustainability and develop a global partnership for development. It is important to note that the agenda can be achieved with good financial management of our resources. Security and accessibility of cash is of utmost importance to achieving these goals. Electronic payment is payment done in paperless form through the bank. Before the introduction of e-payment, bank customers were subjected to insecurity of carrying cash, standing in long queues, embarrassment of cheques being dishonored, made to pay their bills outside the bank, cash payment of school fees in the various schools of their children and wards etc. With the introduction of e-payment, it is of interest to the researcher to study the contributions the payment system has made to people in Abakaliki Urban and identify the challenges experienced in the use of e-payment with the view of proffering solutions to the problem hence the problem of the study.

### Purpose of the study

This study is aimed at ascertaining the following:

- \* Contributions of e-payment to the people in Abakaliki Urban
- \* Challenges to the use of e-payments in Abakaliki Urban

**Research Questions**

**The following research questions guided the study**

- \* What are the contributions of e-payment to the people in Abakaliki Urban?
- \* What are the challenges to the use of e-payment in commercial banks in Abakaliki Urban?

**Hypotheses**

The following hypotheses guided the study:

- \* There is no significant difference between the mean ratings of the responses of junior and senior staff on the contributions of e-payment to people in Abakaliki Urban.
- \* The mean rating of the respondents on the challenges of e-payment will not differ by sex.

**3. METHODOLOGY**

The study was a descriptive survey of the opinion of bankers from selected commercial banks in Abakaliki urban of Ebonyi State. The population comprised of 50 bank staff selected from four commercial banks in Abakaliki Urban. The banks used were Guaranteed Trust Bank (GTB), Diamond Bank plc, Eco Bank plc and Access bank. The entire population was used for the study. A structured questionnaire that was divided into two parts was used for data collection. Part A was on personal data of the respondents while part B contained a total of 18 items used in answering the two research questions. Fifty copies of the questionnaire were distributed but 44 copies only were correctly filled and returned. The response was patterned using four point likert scale thus: Strongly agree (SA), Agree (A), Disagree (A), and Strongly Disagree (SD) rated at four points, three points, two points and one point respectively. The mean and standard deviation were used to answer the research questions while the t-test was used to test the hypothesis at 0.05 level of significance. Mean rating below 2.5 was rejected while any rating of 2.5 and above was accepted.

**4. RESULTS**

**Research question 1: What are the Contributions in Abakaliki Urban?**

The data collected on the contributions of e-payment in achieving the millennium development goals are shown below:

Table 1: Contributions of e-payment to the achievement of the millennium development goals

| S/NO | Contributions of e-payment                              |      |         |        |
|------|---|------|---------|--------|
|      | X   | SD   | Remark. |        |
| 1.   | Convenience of use by customers                         | 3.48 | 0.55    | Agreed |
| 2.   | Speed in transferring fund among individuals            | 3.72 | 0.44    | Agreed |
| 3.   | Production of information security for customers        | 3.45 | 0.66    | Agreed |
| 4.   | Accessibility to customers account                      | 3.34 | 0.85    | Agreed |
| 5.   | Accuracy of transaction records                         | 3.45 | 0.63    | Agreed |
| 6.   | Reduction in queues in banks                            | 3.55 | 0.70    | Agreed |
| 7.   | Opportunity to transact business using electronic cards | 3.70 | 0.63    | Agreed |

Table 1: Contributions of e-payment to the achievement of the millennium development goals Cont.

| S/NO              | Contributions of e-payment                  |             |         |        |
|-------------------|---|-------------|---------|--------|
|                   | X   | SD          | Remark. |        |
| 8.                | Use of phone in mobile banking              | 3.80        | 0.55    | Agreed |
| 9.                | Choice of usage of internet banking         | 3.45        | 0.57    | Agreed |
| 10.               | Corporate banking can easily be carried out | 3.34        | 0.53    | Agreed |
| 11.               | Banking can be carried out at home          | 3.48        | 0.51    | Agreed |
| <b>Grand mean</b> |   | <b>3.52</b> |         |        |

The result of the study shows that all the items in the table were accepted to be the contributions of e-payment to suitable financial management in Abakaliki Urban since they all scored a mean point above 2.5.

**Research question 2: What are the Challenges to the Use of E-Payment in Abakaliki Urban?**

The data collected on the challenges of e-payment is presented in table 2

Table 2: Mean scores on the challenges of e-payment in Commercial Banks

| S/NO | Contributions of e-payment                           |      |         |        |
|------|--|------|---------|--------|
|      | X  | SD   | Remark. |        |
| 1.   | Poor knowledge of customers on the use of the system | 2.80 | 0.79    | Agreed |

|  |             |      |           |
|--|-------------|------|-----------|
| 2. Frequent breakdown of machine                     | 2.43        | 0.79 | Disagreed |
| 3. Slow process of service delivery                  | 2.45        | 0.85 | Disagreed |
| 4. Long queues in banks due to breakdown of machines | 2.45        | 0.70 | Disagreed |
| 5. Epileptic network connectivity                    | 2.34        | 0.68 | Disagreed |
| 6. Impatience on the part of customers               | 2.52        | 0.88 | Agreed    |
| 7. Improper handling of cards by customers           | 3.07        | 1.0  | Agreed    |
| <b>Grand mean</b>                                    | <b>2.58</b> |      |           |

Three items out of the seven items were agreed to be the challenges of payment to the achievement of the millennium development goals. The items were link failure, impatience on the part of customers and defects with regards to customer's cards due to improper handling. These items scored above 2.5 while others scored below 2.5.

**Hypothesis 1: There is no significant difference between the mean ratings of the responses of junior and senior staff on the contributions of e-payment in achieving the millennium development goals.**

The result of the t-test analysis is shown on table 3 below:

**Table 3: T-Test Analysis of the Contributions of E-Payment in Achieving the MDGs**

| S/N | Cadre of Staff | No    | X        | SD     |
|-----|----------------|-------|----------|--------|
| DF  | TCal           | Tcrit | Decision |        |
| 1.  | Senior         | 25    | 3.40     | 0.50   |
|     | Junior         | 19    | 3.58     | 0.76   |
|     | 42             | 0.90  | 2.01     | Accept |
| 2.  | Senior         | 25    | 3.68     | 0.48   |
|     | Junior         | 19    | 3.68     | 0.58   |
|     | 42             | 0.16  | 2.01     | Accept |
| 3.  | Senior         | 25    | 3.48     | 0.51   |
|     | Junior         | 19    | 3.42     | 0.84   |
|     | 42             | 0.28  | 2.01     | Accept |
| 4.  | Senior         | 25    | 3.36     | 0.64   |
|     | Junior         | 19    | 3.32     | 1.11   |
|     | 42             | 0.14  | 2.01     | Accept |
| 5.  | Senior         | 25    | 3.44     | 0.51   |
|     | Junior         | 19    | 3.47     | 0.77   |
|     | 42             | 0.13  | 2.01     | Accept |
| 6.  | Senior         | 25    | 3.36     | 0.81   |
| 7.  | Junior         | 19    | 3.79     | 0.42   |
|     |                | 2.28  | 2.01     | Reject |

**Table 111: T-Test Analysis of the Contributions of E-Payment in Achieving the MDGs cont.**

| S/N | Cadre of Staff | No    | X        | SD     |
|-----|----------------|-------|----------|--------|
| DF  | TCal           | Tcrit | Decision |        |
| 8.  | Senior         | 25    | 3.80     | 0.41   |
|     | Junior         | 19    | 3.79     | 0.42   |
|     | 42             | 0.08  | 2.01     | Accept |
| 9.  | Senior         | 25    | 3.92     | 0.28   |
|     | Junior         | 19    | 3.68     | 0.76   |
|     | 42             | 1.58  | 2.01     | Accept |
| 10. | Senior         | 25    | 3.52     | 0.51   |
|     | Junior         | 19    | 3.53     | 0.70   |
|     | 42             | 0.05  | 2.01     | Accept |
| 11. | Senior         | 25    | 3.32     | 0.48   |
|     | Junior         | 19    | 3.37     | 0.60   |
|     | 42             | 0.30  | 2.01     | Accept |
| 12. | Senior         | 25    | 3.48     | 0.57   |
|     | Junior         | 19    | 3.47     | 0.57   |
|     | 42             | 0.19  | 2.01     | Accept |

The result of the t-test analysis in table 3 shows that the calculated t values for all the items except reduction of queues in banks were less than the critical value of 2.01 at 0.05 level of significance and 42 degree of freedom. The null hypothesis stating that there will be no significant difference on the mean response of junior and senior bank staff on the contributions of e-payment was accepted.

**HO2: The mean rating of the respondents on the challenges to the use of E-Payment will not differ based on sex.**

The t-test result is shown thus on table 4:

**Table 4: T-Test Analysis of the Challenges of E-Payment in Commercial Banks**

| S/N  | Gender | No       | X    | SD     | DF |
|------|--------|----------|------|--------|----|
| TCal | Tcrit  | Decision |      |        |    |
| 1.   | Male   | 25       | 2.92 | 0.81   |    |
|      | Female | 19       | 2.63 | 0.76   |    |
|      | 42     | 1.22     | 2.01 | Accept |    |
| 2.   | Male   | 25       | 2.36 | 0.57   |    |
|      | Female | 19       | 2.53 | 0.77   |    |
|      | 42     | 0.81     | 2.01 | Accept |    |
| 3.   | Male   | 25       | 2.56 | 0.82   |    |
|      | Female | 19       | 2.32 | 0.89   |    |
|      | 42     | 0.92     | 2.01 | Accept |    |
| 4.   | Male   | 25       | 2.48 | 0.65   |    |
|      | Female | 19       | 2.42 | 0.77   |    |
|      | 42     | 0.27     | 2.01 | Accept |    |
| 5.   | Male   | 25       | 2.48 | 0.77   |    |
|      | Female | 19       | 2.16 | 0.60   |    |
|      | 42     | 1.62     | 2.01 | Accept |    |

|    |        |      |      |        |
|----|--------|------|------|--------|
| 6. | Male   | 25   | 2.72 | 0.84   |
|    | Female | 19   | 2.26 | 0.87   |
|    | 42     | 1.76 | 2.01 | Accept |
| 7. | Male   | 25   | 3.04 | 0.98   |
|    | Female | 19   | 3.11 | 1.05   |
|    | 42     | 0.23 | 2.01 | Accept |

The result of the t-test table shows that the calculated t values for all the items were less than the critical value of 2.01 hence the null hypothesis stating that the respondents opinion will not differ based on gender was accepted.

## 5. DISCUSSIONS

### Contributions of E-payment in the Achievement of the Millennium Development Goals

The result of the study in table 1 shows that the respondents agreed that all the e-payment items listed in the questionnaire contributes to the achievement of the eight focal points of the millennium development goals. With this, the respondents agreed that for the MDGs to be attained effective financial management should be in place and the use of electronic payment is very important. This therefore means that all the goals could be achieved when customers can conveniently access fund, transfer payment for business transactions and other economic and education activities. Also the result shows that respondents agreed that keeping accurate records of transaction, faster access to their account and securing of their account will contribute immensely to the achievement of all the millennium development goals.

The findings of the study are in line with the view of Issahaku (2012) who pointed out that Information technology has appreciable positive effect on banking productivity, cashiers work, banking transactions, bank patronage, bank services delivery and customer services. Asaolu, Ayoola and Akinkoye (2011) stated that in the Nigerian context, e-payment is effecting payments from one end to another end through the medium of the computer without manual intervention beyond imputing the payment data. It is the ability to pay suppliers, vendors and staff salaries electronically at the touch of a computer button. In his own contribution, Annon (2003) stated that in effect e-payment enhances saving mobilization and financial intermediation, efficient payment systems rely on non-cash payments and an efficient and reliable payment system facilitates economic development.

The test of hypothesis showed no significant difference on the opinion of junior and senior staff in the commercial banks on the contributions of e-payment to the achievement of the millennium development goals showing that both junior and senior staff in the commercial banks are of the opinion that e-payment has seriously contributed to the achievement of the millennium development goals. This is because e-payment gives customers choice variety, leads to cost saving, speedy payment, and security in transaction in addition to other impacts Al-Adwan, Al-Zyood and Ishfnaq (2013).

### Challenges to the use of E-Payment

Out of the seven (7) items indicated in the research questions, only three items comprising of link failure; impatience on the part of customers and defects with regards to customer's cards due to improper handling were accepted as the challenges of the use of e-payment. The other four items comprising of frequent breakdown of machine; slow process of service delivery; long queues in the bank due to breakdown of machines and epileptic network connectivity were not accepted as the challenges of use of e-payment.

This finding is in line with Asaolu and others (2011) who found out that link failure, frequent breakdown of machine, are challenges of e-Zwich service which is a form of e-payment used in Ghana; and disagrees with their findings that slowness of transaction and long queues are the challenges of e-Zwich service. Kumaga (2010) in his study on challenges of e-payment explained that lack of acceptance, ignorance, network lapse and lack of tips are the major challenges of the adoption of e-Zwick smart card used as a mode of e-payment used in Ghana. In his own view, Bassey (2008) categorized the challenges to the adoption of e-payment systems in Africa into 3 categories namely: infrastructure, regulatory, cultural – human dimensions. He sees the infrastructural challenges as the paramount which relates to ICT accessibility, affordability, networks, connectivity and usage.

The test of hypothesis showed that the respondents opinion on the challenges to the use of e-payment does not differ based on gender of the respondents. This confirms that there is an agreement on the views of the respondents with regards to the challenges to the use of e-payment in commercial banks in Abakaliki irrespective of their gender.



## 6. CONCLUSIONS

Electronic payment is an essential tool for the achievement of the millennium development goals. It is better than the old system of people carrying cash and cheque for business transactions. Money can be withdrawn by a customer at her own convenience and transfer of funds can be performed by a customer at the comfort of his house. This helps to reduce the long queues that used to be in banks as well as gives the customers the opportunity of utilizing their time effectively. Hence it is an imperative that it should be integrated in the curriculum of both secondary and tertiary education programme.

Bank customers must adopt e-payment system to ensure adequate funding of our children's education, good health care, financial management of our entrepreneurship business etc. to target the 2015 millennium development goals.

The use of e-payment is challenged by poor network system, epileptic network connectivity, etc. These challenges must be addressed by the commercial banks to encourage their customers to maintain the use of e-payment and others yet to adopt it will learn to join the others in reaping the dividend of e-payment.

## 7. RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

Nigerian citizens should be enlightened on the role of e-payment in the achievement of the millennium development goals. They should be encouraged to obtain ATM cards, make use of electronic money transfers so that cash can transfer can be made irrespective of the day or time, engage in inter or intra bank transfers, pay their electricity and other utility bills by electronic transfer of cash etc.

The curriculum of primary, secondary and tertiary institutions should be structured in a way that all the recipients of the programme should be made to understand the relevance of the use of electronic payment for effective financial management of school resources as well as the funds provided for the students' upkeep.

In secondary school's curriculum, emphasis should be laid on electronic payment while teaching

book keeping and in the tertiary institutions curriculum, it should be emphasized under social science as a general course. For the department of business education, accountancy and other management courses, electronic accounting should be an integral part of their curriculum where emphasis will be made on electronic payment.

Regulations have to be instituted by the government to ensure that payments for all government services are paid straight into government account. Cash payment should be minimally reduced to avoid the incidence of fraud and waste of time in long queues.

Management of banks should improve on the quality of their computers and ATM machines to give their customers express attention so that by 2015, a cashless society whereby receipts and payment are made electronically will be achieved hence facilitating good education, health care, and developing a global partnership for development which are indices of the MDGs.

## REFERENCES

1. Al-Adwan, M.M.; Al-Zyrod, M. & Ashfaq, M. (2013). *The impact of electronic payment of Saudi Banks profitability: A case study of SADAD payment system*. Retrieved from [www.arpapress.com/volumes/vol1415sue/IJRRAS](http://www.arpapress.com/volumes/vol1415sue/IJRRAS) on 28th August, 2014.
2. Anik, A. A. & Pathan, A. K. (2002). *A framework for managing cost effective and easy electronic payment system in the developing countries*. Retrieved from [www.commonwealth.com](http://www.commonwealth.com)
3. Annon, T. (2003). *Ghana's banks now upgrading payment system online*. Retrieved March 10, 2011 from: [www.newsfromAfrica.org/newsfromafrican:articles/art781.html](http://www.newsfromAfrica.org/newsfromafrican:articles/art781.html).
4. Asaolu, J.O; Ayoola, T.J. and Akinkoye, E. Y. (2011). Electronic payment system in Nigeria: Implementation, constraints and solutions. *Journal of Management and Society* 1(2) 16-21. Retrieved from <http://www.lautechtransporting.com/journal> html on 26th August, 2014.

5. Bassey, C. (2008). *Digital money in a digital dividend world: Nature, challenges and prospects of e-payment systems in Africa*. Retrieved from [scottmanizone.com/bassey-digitally-divided-world.pdf](http://scottmanizone.com/bassey-digitally-divided-world.pdf) on July 19, 2012.
6. Global Insight Incorporated & Visa (2003). *Virtown circle: Electronic payments and economic growth*. Retrieved from [www.corporate.visa.com](http://www.corporate.visa.com)
7. Institute for Prospective Technological Studies SEVILLE (1999). Study on electronic payment systems for the committee on economic and monetary affairs and industrial policy of the European Parliament. *European Commission Joint Research Centre*.
8. Issahaku, H. (2012). Challenges of electronic payment systems in Ghana: the case of e-ZWICH. *American Journal of Business and Management* 1(3) 87-95.
9. Kumaga, D. (2010). *The challenges of implementing electronic payment systems: The case of Ghana E-zwich payment system*. Retrieved July 19, 2012 from <http://www.bth.se/fou/cuppsats.nsf/all>.
10. Olajide B. (2008). MDGs: Nigeria still off the mark. Lagos: *Guardian Newspaper*, Wednesday, July, 30<sup>th</sup>.