

# THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

## Effect of Information and Communication Technology (ICT) Investment on Deposit Mobilization of Commercial Banks in Nigerian

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### **Abstract**

*This Study Was Conducted In Nigeria On The Effect Of Ict-Investment On Deposit Mobilization Of Commercial Banks. Geographically, Nigeria Is Situated In The West Coast Of Africa, Bordered To The North By Niger Republic, To The East By Chad And Cameroon, To The South By The Gulf Of Guinea, And To The West By Benin Republic. Nigeria Has An Area Of 923,768 Sq/Km And Is The World's Twenty-Ninth (29th) Largest Country In Terms Of Size. Secondary Data Was Used To Undertake This Study. The Necessary Data Was Extracted From The Annual Reports Of The 10 Selected Quoted Commercial Banks In Nigeria For The Period 2007-2016 Financial Years. Corporate Annual Reports Were Used Since They Were Promptly Accessible, Available And Provided A Greater Platform For Results Comparability. The Study Population Consisted Of All Quoted Commercial Banks Listed On The Nigerian Stock Exchange (Nse). The Study Covered The 10 Selected Quoted Commercial Banks (Cbs) Listed On The Nigerian Stock Exchange As At December 31, 2017 Out Of The 21 Cbs Licensed By The Central Bank Of Nigeria (Cbn) And Operating In Nigeria Till Date. The Effect Of Ict Investments On Bank Performance Was Analysed Using Panel Regression. The Pooled Ols, Random Effects (Re) And Fixed Effects (Fe) Was Estimated. The Study Discovered That Ict-Investment Has Significant Effect On Deposit Growth Of Nigerian Commercial Banks. The Study Recommended That banks Should Put In Place Systems That Can Help Improve Customer Confidence In Using Ict Platforms. Issues Of Internet Security And Exposure Of Customer Details Are Key Issues That Banks Should Address And Improve Upon As This Can Go A Long Way In Ensuring Users' Confidence And Hence More Loyalty In Terms Of Sustained Banking Relations.*

**Keywords:** *ICT-investment, ICT platforms deposit growth, deposit mobilization*

### **1. Introduction**

Generally, banks are the backbone of any economy and hence the need for economics to possess a strong buoyant banking system which are technological based. Lack of effective use of technology in terms of computers and software have a significant effect on any economy in the dynamic era, it can lead to bank failures, while on the run it can affect the public trusts of the banks and its capacity to manage its assets and liabilities. These may lead to lower deposit growth and lack of cost efficiency metamorphosing to losses. Banks can affect the money supply through the bank funds through cash deposit it receives by using interest rates to create their own profit; Banks therefore, ensures the efficient transformation of mobilized deposits funds in to productive capital. The growth of these deposits will lead to more opportunities to invest and hence, enhanced performance.

Electronic banking involves using electronic and telecommunication networks in delivering the various processed products and services to the clients of banks (Stephen, 2002). That is, it is simply carrying out banking operations through the use of information technology. It has been argued by Ovia (2001) that, Electronic banking emerged from e-commerce in the field of banking and financial services. It can be said that, the driving force of electronic banking in every country is Information and Communication Technology (ICT). There has been an improvement in the way and efficiency with which banks render services to customers since the introduction of electronic banking (Stephen, 2002).

The banking industry has undergone an improvement in the delivery of services as a result of the improvement in Technology. For instance, consumers can now carry out banking transactions beyond banking hours through Automated Teller Machines (ATMs) and deposit machines. It is possible for an individual to check his/her account balance and make payments without going to the banking hall by means of online banking. The end result is likely to be the creating of a society where consumers no longer have to pay for all their purchases with hard cash. Bank customers can for instance pay bills and purchase other goods by transferring the money directly from their accounts, or pay for various services by electronic transfers of credit to the sellers account (Adewale and Afolabi 2013).

In the Nigeria banking industry, Information technology has now been recognized as the life wire of banks in the financial sector as it facilitates and supports the financial performance of banks in the country. This makes it necessary to embrace information technology. Information communication technology has been involved in most aspect of human life, creating a major advancement of social progress and the dynamic development in IT has greatly improved its role in every face of human life (Adeoti, 2005). Consequently, the focus of this study is to examine the effect of ICT investment on deposit growth of selected banks in Nigeria.

## 2. Statement of the Problem

The banking sector has assumed a strategic position in the lives of individuals' businesses and economics of the world. The success will have a positive impact on the economy of a nation as a whole. Managers continuously search for means of offering services to their teeming customers efficiently and effectively. Nigeria banks just like banks across the globe operate in a dynamic framework necessitated by technology and globalization. These changes were largely influenced by challenges of globalization of operations, technological innovations and the adoption of supervisory and prudential requirements that conform to international standards (CBN Briefs 2004/05-2).

Despite the potential benefits of ICT and e-commerce, there is debate about whether and how their adoption improves bank performance. Several attempts have been made to investigate the impact of electronic banking on bank performance. Studies by Kariuki (2005) showed the positive impacts of ICT on their banking performance using bank turnover and profits as measure of performance. He established that banks those with high profit growth are more likely to be using greater numbers of advanced ICTs. He concluded that e-banking leads to higher profits though in long-term but not in short-term due to high ICT investment cost. All this studies used profit and turnover as measures of bank performance. While Hassan, Mamman, & Farouk, (2013) suggest that use of and investment in ICT requires complementary investments in skills, organization and innovation and investment and change entails risks and costs which might reduce bank profits in. Hence there is need to use some of relative measure such as return on assets to uncover the impact of ICT investment on banking performance. This gap is being addressed in this study. This study addressed this gap by using dynamic distributive lag procedure to examine the effect of ICT investments on firm performance.

## 3. Literature Review

### 3.1. Factors Affecting ICT Investment

The inference made from the theories and models of ICT Investment is that, it is greatly affected by the characteristics of an organization. As stated earlier in the discussion, individuals consider the perceived usefulness, risks among others and the decisions made are usual as a result of the individual's basic characteristics. At the organization or business level, the size really matters, the competition in that particular industry and structural sophistication of the business also influence the readiness to adopt ICT (Oyewole, 2013),

As a result, Arnabodi and Claeys, (2010) explained five main factors influencing of ICT Investment as business characteristics, business action, system characteristics, internal expertise and external expertise. Business characteristics, whether small or large affect its willingness to adopt ICT or not. Comparatively, larger firms use complex structures than smaller ones, hence they require extensive use of information and computer technology. Smaller firms handle smaller volumes of information as compared to larger ones and since ICT simplifies procedures and information handling, embracing it becomes an option for larger firms.

According to this study, business action is usually determined by top management officials and because of this their behavioral characteristics affect adoption. Also whether or not these officials identify ICT needs of a company, establish proper ICT goals and allocate financial resources to its adoption is a very crucial factor. In addition, the access to ICT experts internally and externally affects ICT Investment adoption. In spite of all these barriers to ICT Investment, ICT has revolutionized the way of living as well as conducting businesses and study of banking industry has received increased attention over the last decade. ICT Investment has become imperative for the banking industry due to the above factors outlined in the theories of its adoption. It can be seen that banks handle a large amount of information about clients, it also has large client base among others.

### 3.2. ICT Investment and Deposit Growth in the Banking Sector

Banks deposits have been studied by various economists in different manners. In a comprehensive case study Al-Samadi and Al- Wabel, (2011) finds that growth of deposit is affected by various factors such as GDP, interest rate and expansions of bank branches. However, these factors do not effect deposit growth directly and in order to have a comprehensive picture the macroeconomic condition of the country must be studied. Al-Samadi and Al- Wabel, (2011) studied the trend and growth of deposit mobilization of scheduled commercial banks in Tamil Nadu for a period of 10 years (1999-2009). He used compound growth rate and substantiated his findings with simple regression analysis. He concluded that deposit mobilization in all forms of deposit shows considerable growth barring certain exceptions in case of term deposits. A significant decline in number of accounts of current deposit was noticed along with a rise in average amount per account. The author did not study the business implications of the changing structure of current deposits. Al-Samadi and Al - Wabel, (2011) noticed that deposit mobilized by public sector banks during 2003 to 2012 reflect increasing trend although there is no significant difference between current, savings and term deposits of public sector banks in India.

There is no doubt that commercial banks play an important role in the economic development of any nation. The need for efficiency and effectiveness in the performances of the banks as leading players in the financial services that the

commercial banks provide a nation cannot be overemphasized. Recent advances in the technological world giving birth to the emergence of information and communication technology have led to remarkable changes in the ways businesses are running in contemporary times. The introduction of electronic banking has improved banking efficiency in rendering services to customer. Information and Communication Technology (ICT) is at the centre of electronic banking system in Nigeria today. Banking industry in Nigeria cannot ignore information systems because they play a critical impact in current banking system, they point out that the entire cash flow of most banks are linked to information system.

The application of information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a subject of fundamental importance and concerns to all banks and indeed a prerequisite for local and global competitiveness banking (Connel and Saleh, 2004). The advancement in Technology has played an important role in improving service delivery standards in the Banking industry. In its simplest form, Automated Teller Machines (ATMs) and deposit machines now allow consumers carry out banking transactions beyond banking hours. With online banking, individuals can check their account balances and make payments without having to go to the bank hall. This is gradually creating a cashless society where consumers no longer have to pay for all their purchases with hard cash.

Mohammad and Saad, (2011) examines that electronic banking poses a negative impact on performance of rural banks in Jordan. Thus, they note that e-banking in its entirety has not improved the performance of financial institutions holding on to these financial innovations. However, Mohammad and Hassan, (2011) attribute this phenomenon to the issue of high dependence of bank customers on traditional channels of banking to carry out their banking operations. Also, they posit that the resultant associative emerging from adopting electronic banking are still higher in developing economies hence less beneficial to the financial industry. Simpson (2002) notes that, the motivation for e-banking is largely based on the notion of reduction in operational cost but an increase in operating income. This effect is highly noticeable in developed markets than emerging as shown by studies. While Sullivan (2000) provides no systematic evidence on the importance of e-banking, Jayawardhena and Foley (2000) examine that e-banking is the main reason for the reduction in cost and increase in efficiency of United Kingdom banks.

Elgahwash, (2013) investigated the role of information and communication technologies in enhancing customer relationships in the Libyan Banking sector. The data was analysed using relevant descriptive statistics and Pearson Moment Correlation Coefficient, Regression analysis and Chi-Square were used to test the four hypotheses. The finding provides a useful insight for banks in developing banking strategies to meet customer needs and further maintain and increase the degree of relationship with customers. Oppong, Adjei and Poku, (2014) studied the role of information technology in building customer loyalty in banking: A study of Agricultural Development Bank Ltd Sunyani Ghana. The research designed adopted for the study was descriptive. They used questionnaire to collect data from 128 customers. Data collected were analysed using simple percentage and correlation coefficient. The results of the study indicate that despite the introduction of IT in service delivery by Agricultural Development Bank in Sunyani Ghana, service quality is still low. However, IT has played the role of enhancing customer loyalty and patronage leading to growth in deposits.

Dushyenthan, (2013) in a study on the usage of information technology and its effect on the customer loyalty. The study of banking industries in Jaffna Sri – Lanka. A comparative study of state banks and private banks. Data were collected from primary and secondary sources. The data was analysed using the relevant descriptive statistics like frequency, percentage, mean and standard deviation. The hypotheses were tested using t -test independent sample one-way ANOVA, Regression analysis, and Pearson Moment Correlation Coefficient. The findings of the study suggest that information communication technology contributes significantly to customer loyalty. Elgahwash, (2013) investigated the role of information and communication technologies in enhancing customer relationships in the Libyan Banking sector. The data was analysed using relevant descriptive statistics and Pearson Moment Correlation Coefficient, Regression analysis and Chi-Square were used to test the four hypotheses. The finding provides a useful insight for banks in developing banking strategies to meet customer needs and further maintain and increase the degree of relationship with customers.

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### 3. Methodology

This study was conducted in Nigeria on the effect of ICT-Investment on deposit mobilization of commercial banks in Nigeria. Geographically, Nigeria is situated in the West coast of Africa, bordered to the North by Niger Republic, to the East by Chad and Cameroon, to the South by the Gulf of Guinea, and to the West by Benin Republic (Decalo, 1989). Nigeria has an area of 923,768 Sq./km (356, 669 miles) and is the world's twenty-ninth (29th) largest country in terms of size (Hodge & La Roche, 2008).

Secondary data was used to undertake this study. The necessary data was extracted from the annual reports of the 10 selected quoted commercial Banks in Nigeria for the period 2007-2016 financial years. Corporate annual reports were used since they were promptly accessible, available and provided a greater platform for results comparability. The population of a research work is the census or enumeration of all objects or articles that possess the trade mark or characteristics of the phenomenon being studied. The study population consisted of all quoted commercial banks listed on the Nigerian Stock Exchange (NSE). The study covered the 10 Selected quoted Commercial Banks (CBs) listed on the

Nigerian Stock Exchange as at December 31, 2017 out of the 21 CBs licensed by the Central Bank of Nigeria (CBN) and operating in Nigeria till date.

The effect of ICT investments on Bank performance was analyzed using panel regression. The pooled OLS, random effects (RE) and fixed effects (FE) was estimated. The Breusch-Pagan Lagrange Multiplier (LM) test for RE and the Hausman test for both random and fixed models were conducted including an F-test for the FE model to enable us to determine which model was better. The suitable models for the research are chosen in line with the results of the tests.

#### 4. Data Presentation and Analysis

Year	Access	Diamond	Fidelity	First Bank	FCMB	GTB	Stanbic	UBA	Unity	Zenith
2007	62.45	67.79	80.8	65.8	71.4	60.54	48.77	88.55	71.74	65.22
2008	33.83	67.08	70.69	45.84	56.92	49.06	35.29	90.21	92.43	66.36
2009	63.21	71.79	70.27	61.94	72.22	64.05	65.13	91.46	85.73	70.73
2010	60.5	69.27	67.84	62.92	76.25	66.08	48.49	88.1	84.88	86.07
2011	67.63	84.45	76.39	68.22	107.38	63.66	55.91	81.71	102.31	85.67
2012	68.83	77.26	78.39	75.35	78.72	66.18	57.78	82.67	78.45	90.09
2013	72.54	79.4	74.57	75.67	70.93	67.88	71.16	81.79	75.14	86.44
2014	69.11	77.24	69.08	70.25	62.75	68.69	59.14	78.54	67.03	67.57
2015	64.96	70.36	62.48	71.31	60.39	63.79	62.82	75.63	52.21	63.84
2016	59.97	69.5	61.09	65.53	56.27	63.74	58.35	3.11	53.62	62.95

Table 1: Deposit Mobilization Measured Deposit from Customers Divided by Total Asset  
Source: Annual Reports and Accounts of the Banks, 2018

##### 4.1. ICT Investment and Bank Deposits

Below is the model that investigated the effect of ICT investment on banks deposit and the empirical results afterwards in Table 4.3.

<b>R-squared</b>	<b>0.806491</b>	<b>Mean dependent var</b>	<b>71.37545</b>
Adjusted R-squared	0.714134	S.D. dependent var	14.56615
S.E. of regression	7.787996	Akaike info criterion	7.204246
Sum squared resid	2668.727	Schwarz criterion	7.934131
Log likelihood	-215.7401	Hannan-Quinn criter.	7.492658
F-statistic	8.732356	Durbin-Watson stat	2.086332
Prob(F-statistic)	0.000000		

Table 2: ICT Investment and Deposit Growth Regression Result

R <sup>2</sup> 0.8065	
Adj R <sup>2</sup> 0.7141	
F-statistics	8.7323
Prob(F)	0.000
D.W stat	2.086
Pesaran C.D test	0.325
Housman	0.011

Table 3: Model Parameters (Deposit Growth)  
Source: Researcher's Compilation (2018)

Table 4.13 shows the estimation results for the effect of ICT investment on bank deposit. As observed, the R<sup>2</sup> is 80.65% which is impressive and suggest that ICT performance of banks within a dynamic framework is a key factor explaining deposits by customers. The F-stat is 2.63. (p-value = 0.00) is significant at 5% and suggest that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. The D.W statistics value of 2.1 confirms the absence of first order serial correlation in the model. The pesaran cross-sectional dependence test for the weighted residuals indicates that rejection of the null hypothesis of cross-sectional dependence in the residuals and hence the residuals are identically and independently distributed. The analysis of coefficients reveals ICT-TA at levels has the expected positive effects on bank deposits (21.9834) and also significant at 5% (p=0.018). The result implies growth in bank deposits can be influenced by ICT investment without a lag. The effectiveness of banks ICT platforms have indeed become a basis for competitive advantage and customer loyalty which often results in deposit growth. The lead variables behave quite differently as the

estimations show a negative effect of ICT investments on deposits for periods after the actual investment period. 1<sup>st</sup> year (-33.9725,  $p=0.0066$ ) and 3<sup>rd</sup> year (-30.717,  $p=0.0135$ ) lead values of ICT investment were particularly negative and significant at 5%. The firm size used as control variables appeared is significant in the  $a0.1259$  though not significant at 5%.

Based on the above analysis, it shows that ICT investment have significant positive influence on banks deposit in the short-run. Thus, it signifies that growth in bank deposits can be influenced by ICT investment. However, in the long-run, ICT investment has a significant negative effect on bank deposits. Based on the above findings, we can reject the null hypothesis which states that:  $H_{04}$ : ICT- investment has no significant effect on the deposit growth of Nigeria commercial banks.

## 5. Discussion of Findings

The study shows the estimation results for the effect of ICT investment on bank deposit. The analysis of coefficients revealed ICT-TA at leveled has the expected positive effects on bank deposits (21.9834) and also significant at 5% ( $p=0.018$ ). Hence, that ICT-investment has significant effect on deposit growth of Nigerian commercial banks growth in bank deposits. The result implies can be influenced by ICT investment without a lag. The effectiveness of banks ICT platforms have indeed become a basis for competitive advantage and customer loyalty which often results in deposit growth.

Dushyenthan (2013) study suggested that information communication technology contributes significantly to customer loyalty. Elgahwash (2013) finding provides a useful insight for banks in developing banking strategies to meet customer needs and further maintain and increase the degree of relationship with customers. Oppong, Adjei and Poku (2014) studied the role of information technology in building customer loyalty in banking: The results of the study indicate that the introduction of IT in service delivery by Agricultural Development Bank in Sunyani Ghana, service quality is still low. However, IT has played the role of enhancing customer loyalty and patronage leading to growth in deposits The lead variables behave quite differently as the estimations show a negative effect of ICT investments on deposits for periods after the actual investment period. 1<sup>st</sup> year (-33.9725,  $p=0.0066$ ) and 3<sup>rd</sup> year (-30.717,  $p=0.0135$ ) lead values of ICT investment were particularly negative and significant at 5%. This may suggest that the immediate gains of ICT investment could turn out to be less persistent going forward. The firm size used as control variables appeared is significant in the  $a0.1259$  though not significant at 5%. Hence, we fail to accept the hypothesis that ICT-investment has no significant effect on deposits for Nigerian banks within a dynamic framework.

## 6. Conclusion

The effect of ICT investment on employee productivity revealed that the positive gains from ICT investment began to show up from about the 4<sup>th</sup> year though not significant. Finally, results for the effect of ICT investment on bank deposit revealed ICT investments at 10% level of significance has the expected positive effects on bank deposits and also significant at 5%. The lead variables behave quite differently as the estimations show a negative effect of ICT investments on deposits for periods after the actual investment period.

## 7. Recommendations

Firstly, banks should give attention to the usage of information and communication technology because its efficient usage will serve as a lubricant that facilitates the growth in the performance of banks in Nigeria.

Secondly, ICT investment was found to have a significant and positive effect on cost efficiency and hence the study recommends that banks improve and increase their investment in ICT.

Thirdly, banks must ensure quality training for their staffs and the trainings may even begin before the acquisition of such ICT investments so as to reduce the learning gap period.

Finally, banks should put in place systems that can help improve customer confidence in using ICT platforms. Issues of internet security and exposure of customer details are key issues that banks should address and improve upon as this can go a long way in ensuring users' confidence and hence more loyalty in terms of sustained banking relations.

## 8. Suggestion for Further Study

The researcher suggested that a comparative study should be conducted to compare the Performance of Quoted Banks in Nigeria Before and During the Adoption of Information and Communication Technology (ICT).

## 9. References

- i. Adeoti, J.O. (2005). " *Information Technology Investment in Nigerian Manufacturing Industry: The Progress So Far*", Selected Papers for the 2004 Annual Conference, Ibadan: Nigeria Economic Society, p.213-244.
- ii. Adewale, A.A. & Afolabi, B. (2013). *The Effects of Ict on the Growth of Nigerian Banking Industry: (A Case Study of Five Quoted Banks In Nigeria)* (pp. 1-44). Ado Ekiti, Nigeria.
- iii. Adewoye, J.O. (2012), *Impact of Mobile Banking on Service Delivery in the Nigerian Commercial Banks. International Review of Management and Business Research*. Vol. 2 No. 2
- iv. Ahmed, A. M. & Khababa, N. (2015): "Performance of the banking sector in Saudi Arabia", *Journal of*
- v. Al-Smadi M. O. & Al-Wabel S.A. (2011). *The Effect of Internet Banking on the Performance of Jordanian*
- vi. Araboldi F. & Claeys P. (2010). *Innovation & Performance of European banks adopting Internet*. Working paper series, Centre for Banking Research Cass Business School, City University London.
- vii. Connel, F. & Saleh, M.N. (2004), *Six Puzzles in Electronic Money and Banking*, IMF Working Paper, *IMF Institute*.

- viii. Hassan S. U., Mamman A. & Farouk M. A. (2013). Electronic Banking Product and Performance of Nigerian Deposit Money Bank. *American Journal of Computer Technology & Application* Vol. 1 No. 10 Pp 138-148
- ix. Jayawardhena, C. & Foley, P. (2000). 'Changes in the banking sector – the case of Internet banking in the UK', Internet Research: *Electronic Network Applications and Policy*, Vol. 10.
- x. Kariuki, N. (2005). Six Puzzles in Electronic Money and Banking, *IMF Working Paper*, IMF Institute.
- xi. Mohammad K. M., Hassan H. S. & Monima A. (2011). The Effect of E-Banking on the Profitability of Banks: *A Study of Pakistani Banks* Vol. 1, No. 1
- xii. Ndubisi N. O., Sinti Q. & Chew T. M. (2004). Evaluating Internet Banking Adoption in Malaysia. The Decomposed Theory of Planned Behavior. *International Logistic Congress Proceeding Izmir* December 2-3 pp. 989-1004
- xiii. Ovia, J. (2001). Internet Banking: *practices and potentials in Nigeria*, A paper presented at a seminar organised by the Institute of Chartered Accountants of Nigeria (ICAN) Lagos Sheraton Hotel & Towers, Ikeja.
- xiv. Ovia, J. (2003). Payment System and Financial Innovation. The Nigeria Banker, *Journal of CIBN* (July-September).
- xv. Ovia, J. (2005). How Internet can deliver 21st Century Banking in Africa. *Zenith Economic Quarterly* 1 (4), October.
- xvi. Ovia, J. (2006). IT Deployment as Corporate Strategy in Repositioning Banks in Nigeria. *Zenith Economic Quarterly*, 1(7) (July).
- xvii. Oyewole O. S., Abba M., Gambo J. & Abam I. A. (2013) E-banking and Bank Performance: Evidence from Nigeria. *International Journal of Scientific Engineering and Technology*, Vol. 2 No. 8 Pp766-771
- xviii. Sathye, M. (2005). 'The Impact of Internet Banking on Performance and Risk Profile: Evidence from Australian Credit Unions', *The Journal of International Banking Regulation*, Vol. 6 No. 2.
- xix. Simpson, J., (2002). The effect of the Internet in banking: Observations and evidence from developed and emerging markets. *Telematics and Informatics*, 19 pp: 315-330.
- xx. Stevens A. (2002). Information System. The Information of Electronic- Business. New Jersey Natalie Anderson pp 11-36. Study in India", *International Journal of Indian Culture and Business Management*, 2(1): 12-19 Study Selected Asian Countries, *Journal of Economics and Sustainable Development* Vol.4, No.11, 2013 ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
- xxi. Sullivan, Richard J., (2000). How has the adoption of Internet banking affected performance and risk at banks? A look at Internet banking in the tenth Federal Reserve district," Federal Reserve Bank of Kansas City. Financial Industry Perspectives (December), 1–16.