



Technological Advancement and Effectiveness in The Nigerian Banking Sector

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ABSTRACT

The paper seeks to examine the role of technological innovation on human capacity building as it affects organisational effectiveness in the Nigerian banking industry. Against this backdrop of unprecedented increase in the earnings of most commercial banks in Nigeria the paper focuses on the relevance of technological advancement in the human capacity learning strategy and banking operation as it triggers management efficiency and organisational effectiveness. The paper utilized secondary data through content analysis of the financial reports of some selected commercial banks. Also the CBN annual report was lucidly relied on for statistical information. The findings revealed that indeed, technological advancement and innovation has contributed immensely to both the increase in the earnings and profitability of commercial banks in Nigeria. Devices such as Web camb, pos, Web transaction, mobile payment, selfee payment, are some of the latest technological innovation strategies that has enhanced the earnings of commercial banks in Nigeria. It is recommended that cutting edge innovations should further be deployed in the service delivery to customers and by extension employee training.

Keywords: Technological Innovation Banking Industry Organisational Effectiveness Profitability

INTRODUCTION

The role of technology in the contemporary organization, especially the banking industry is quite huge. Technology has played a critical role both in the aspect of banking operations and human capacity building strategies. There is a nexus between technological advancement and the human capital development as it influences management effectiveness and efficiency. Researchers have revealed that technology shows significant positive impact on management effectiveness. For instance, Chindo (2015), in his study of the influence of human capital, technology on growth in Nigeria, concluded that both human capital and technology are important determinants of effectiveness. Verspagen (2000), argued that technology is a significant factor influencing economic growth and management effectiveness. The contemporary economy is highly sophisticated and geared towards more knowledge based sector including manufacturing, telecommunication and information. Advancement in technology is a critical determinant of a robust human capital development strategy of any organization including the banking industry (Adelakun, 2011).

The aim of this study is therefore to examine the role of technology in the human capacity building strategies of some commercial banks as it influence effectiveness in their operations in Nigeria.

Literature Review

Technological tools and applications are critical component of any business concern that seeks to succeed and be effective. Efficiency in any business concern has to do with the proper coordination of the input-output processes. The input tends to include the materials resources and human resources. While the

output has to do with the products which could take the form of material produces or quality of services rendered to customers. In all of these, technological advancement has shown promise to be the game changer in the attainment of effectiveness especially in the banking industry. Quite a numbers of scholars have written on the influence of technology on the organizational effectiveness. For instance, on the combined influence of human capital and technology on growth and effectiveness, Banerjee and Roy (2014) examined the significance of human capital, technological progress and trade in determining Indian's long run growth by applying improved growth accounting framework and author aggressive distributed lag (AROL)- based co-integration technique to identify the factor that drive long run productivity growth. There results showed that domestic technology capacity building and foreign technology spillovers are key factors in determining Indian's long run growths. Alani (2012) found out that increase in level of technology, capital stock and labour influences growth and effectiveness. In the same vein, Dulleck and Foster (2008) did a cross country study on the influence of technology on human capacity building. His findings revealed a weak relationship between equipment investment as proxy to human capital for countries with a low level of human capital developments, while highest in countries with an intermediate range and somewhat in between for countries with the highest level of human capital. Hence, huge investment in equipment can facilitate technology transfer which improves human capacity development of the organisation.

Some scholars have researched on the influence of technology on human capital developments, which revealed positive relationship (See Ismail & Shaari, 2010; Adawo, 2011; Adelakun, 2011; Kanayo, 2013). In addition, Zaman (2012) did study of the influence of technology on human capacity building by sampling 100 countries using the panel data estimation; his findings confirmed a weak relationship between the two variables.

Technology And Effectiveness In The Nigerian Banking Sector

Data available at the CBN with regard the financial and profit ratio margin of the commercial banks in Nigeria revealed a huge positive impact of technological innovation and creativity. The introduction of E-money products such as the ATM, Web Internet, POS, mobile payments etc improved the profit margin of the banks significantly. The volume of the electronic payments increased by 14 and 12.8% to 519,223.279 and N 4.952.7 Billion in 2015 over the levels of 455,635.404 and N4.391.4 billion, respectively in 2014.

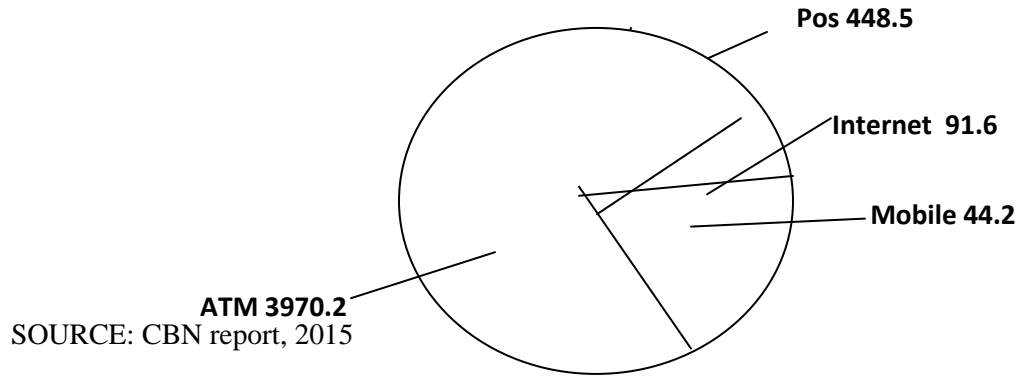
A breakdown of e-payment channels by volume for the review period of 2015/2016 indicated that ATM remain the most patronized which stood at 83.5%, followed by mobile payment and POS terminals with 8.5 and 6.5 % respectively. The web internet was the least patronized with 1.5% of the total. In terms of share value, ATM had a share of 80.2%, mobile payment 8.9%, POS 9.1%, and the internet 1.8%. the rise in the e-payment transaction and the profits derived from its patronage can be attributed to increased customers confidence in the use of technology in doing business with the banks (CBN reports, 2015).

SHARE OF CATEGORIES OF E-PAYMENTS CHANNELS, 2013-2015

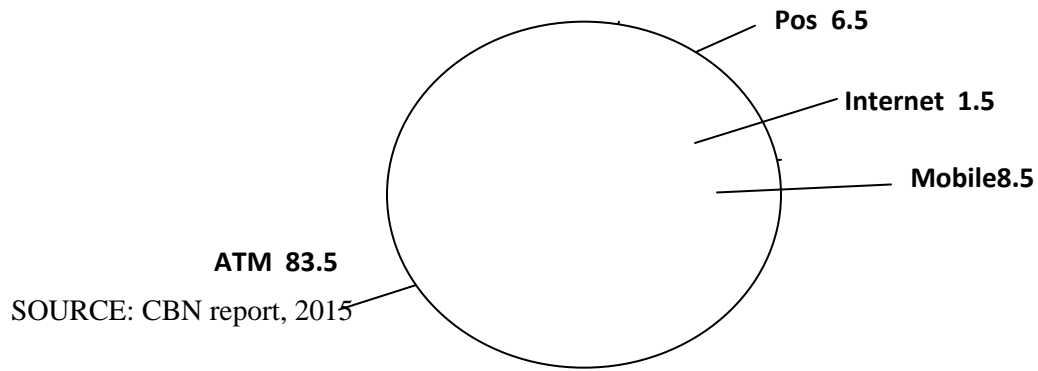
e-payment	Value (million)			Value (billion)		
	2013	2014	2015	2013	2014	2015
ATM	295.3	400.1	433.6	2,828.9	3,679.9	3,970.2
% of total	91.3%	88.1%	83.5%	88.9%	83.5%	80.2%
Web(internet)	2.9	5.6	8.0	47.3	74.3	91.6
% of total	0.9%	1.2%	1.5%	1.5%	1.7%	1.8%
POS	9.4	20.8	33.7	161.0	312.1	448.5
% of total	2.9%	4.6%	6.5%	5.1%	7.1%	9.1%
Mobile payment	15.8	27.7	43.9	142.8	339.2	442.2
% of total	4.9%	6.1%	8.5%	4.5%	7.7%	8.9%
TOTALS	323.4	445.6	519.2	3,180.1	4,391.4	4,952.7

SOURCE: CBN report, 2015

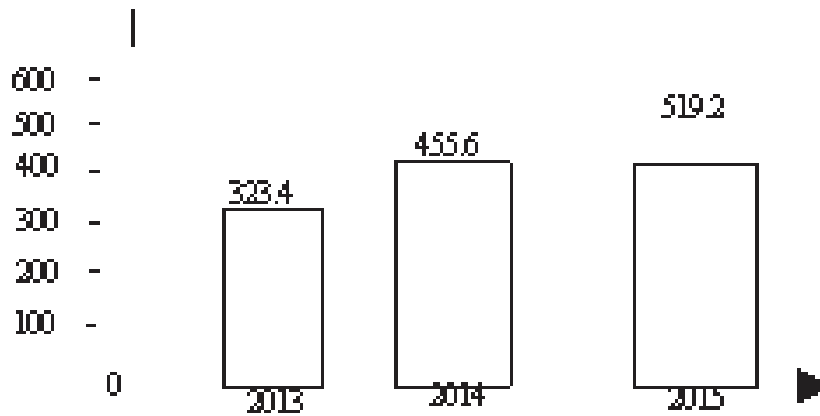
VALUE OF ELECTRONIC PAYMENT, 2015 (PERCENT)



VOLUME OF ELECTRONIC PAYMENT TRANSACTION 2015 (PERCENT)

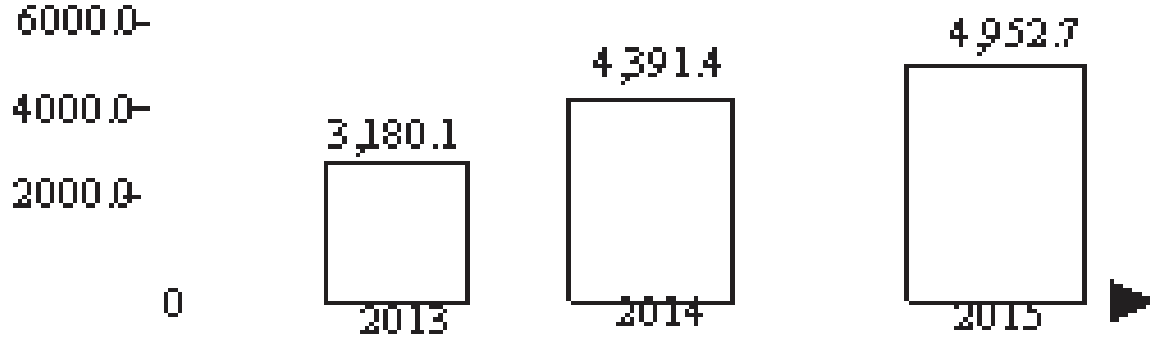


VOLUME OF ELECTRONIC PAYMENT IN GRAPH (MILLION) 2013 - 2015



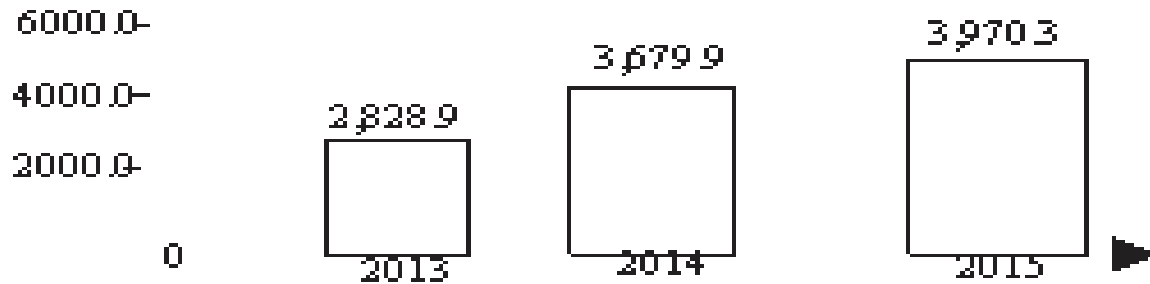
SOURCE: CBN report, 2015

**VALUE OF ELECTRONIC PAYMENT
(Billion) 2013 – 2015**



SOURCE: CBN report, 2015

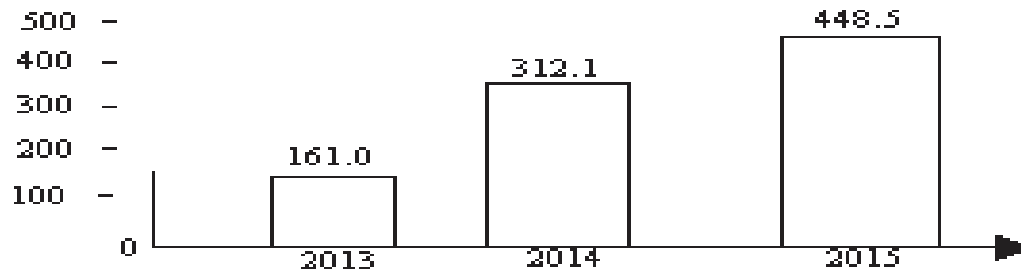
VALUE OF ATM TRANSACTION 2013 – 2015 (N BILLION)



SOURCE: CBN report, 2015

The value of ATM transaction increased by 8.4 and 7.9 percent to 433.587,623 and N3, 970.3 billion December 2015, respectively, from 400.102,507, and N3, 679.9 billion December 2014.

**POINT OF SALE (POS) TRANSACTION
VALUE OF POS TRANSACTION 2013 – 2015 (N BILLION)**



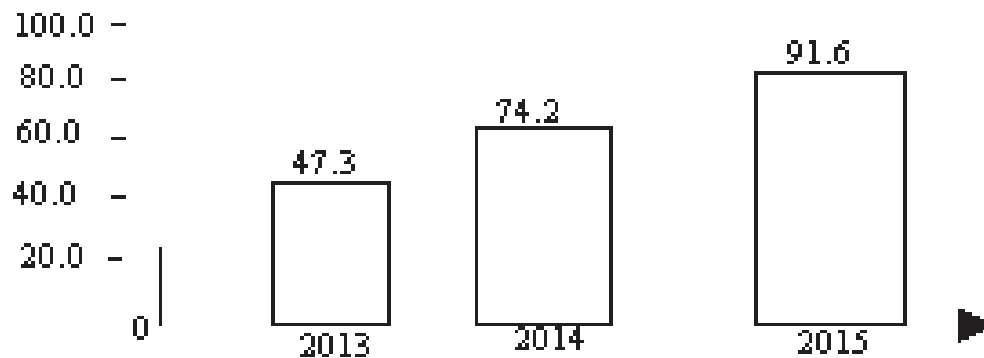
SOURCE: CBN report, 2015

The volume and value of POS transaction increased by 62.0% and 43.7 percent respectively. This was due to increasing public confidence in the use of technology channel of payment.

Web Transaction

The volume and value of transaction on the web increased to 7,981,361 and N91.6 billion above the 5,567,436 and N74.3 billion recorded in 2014 representing increase of 43.3 and 23.3 percent.

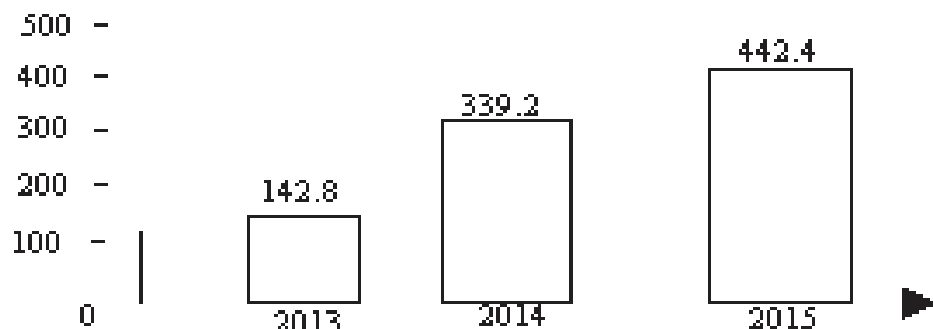
VALUE OF WEB TRANSACTION 2013 – 2015 (N BILLION)



MOBILE PAYMENTS

The volume and value of mobile payments increased by 58.3 and 30.4 percent, respectively to 43,933,362 and 442.4 billion above 27,744,797 and N339.2 billion recorded in 2014. The significant increase in transaction could be attributed to great awareness and usage of mobile payment.

VALUE OF MOBILE TRANSACTION 2013 – 2015 (N BILLION)



SOURCE: CBN report, 2015

The overall overview of the impact of technology on banks profitability which is a strong indicator of effectiveness suggested a positive relationship, as the various e-payment channels increased marginally in terms of patronage and profit ratio.

Technological Advancement, and Profit Earnings of Nigerian’s Commercial Banks

The deployment of technology in the services delivery and human capacity building of her employees has been the hallmark of the 21st century banking industry. The CBN and most commercial bank recently have been posting huge annual profit report which has been attributed to the role of technology both in human capital development and service delivery to customers. This is true of the statement that is credit to a leading old generation bank in Nigeria- deploying the most assumed integrated technology to seamlessly develop and deliver value –adding products and service for enhanced customer experience. Our resolve in deepening technological innovation is pushing the frontiers of financial inclusion, generating record customer subscriptions and transactions across our digital channels (Annual Report of FBN, 2018.).

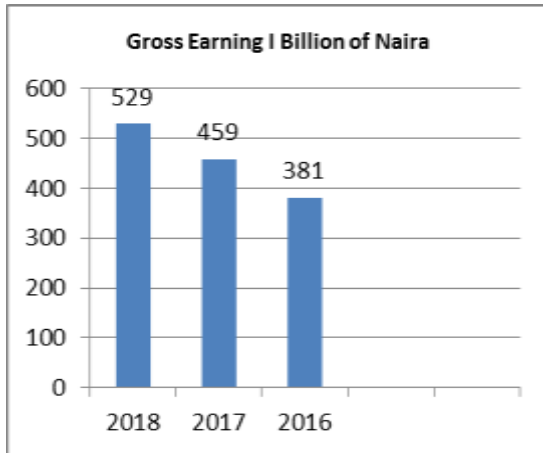
There has been a progressive increase in the earning of most commercial banks spread across the old and new generation. This trend has being attributed to the deployment of modern technology as a cutting edge strategy toward achieving all round organizational effectiveness (Ayorinde, 2018).

Below are some of the profit and financial highlights of First Banks Nigeria in recent times.

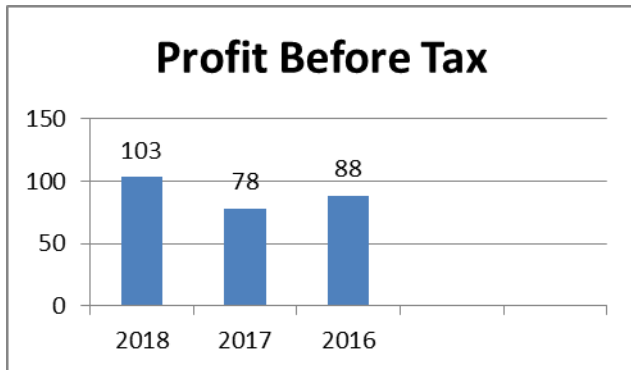
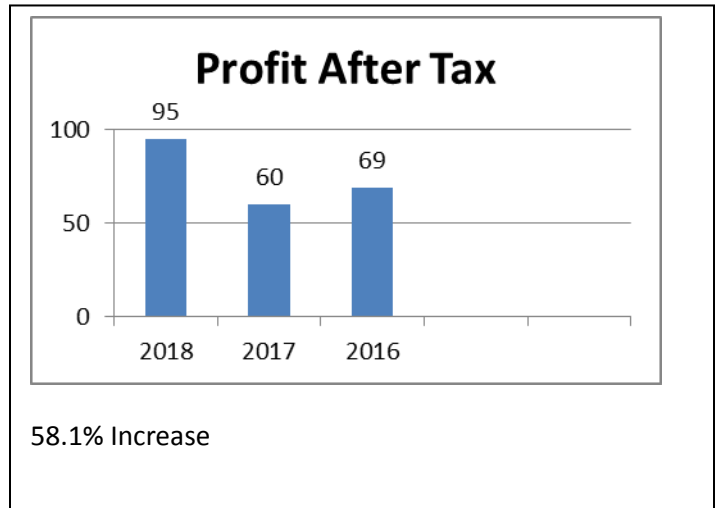
In thousand of Naira	2018	2017	2016
Gross earning	528,744,579	459,075,779	331, 320,783
Profit before tax	103,187,703	78,169,119	87,980,444
Profit after tax	94,981,036	60,037,491	69,090,335
Customer deposit	2,564,908,334	2,244,879,075	2,039,197,286
Share holders fund	490,511,755	511,195,037	452,145,574
Total Asset	4,954,156,938	4,102,142,823	3,483,865,564.

Source: FBN. , 2018.

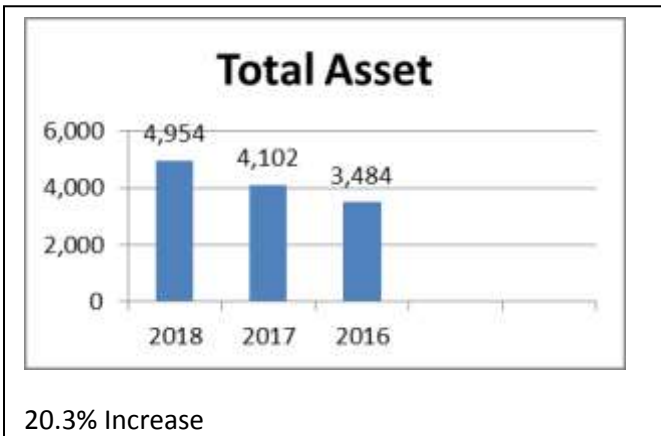
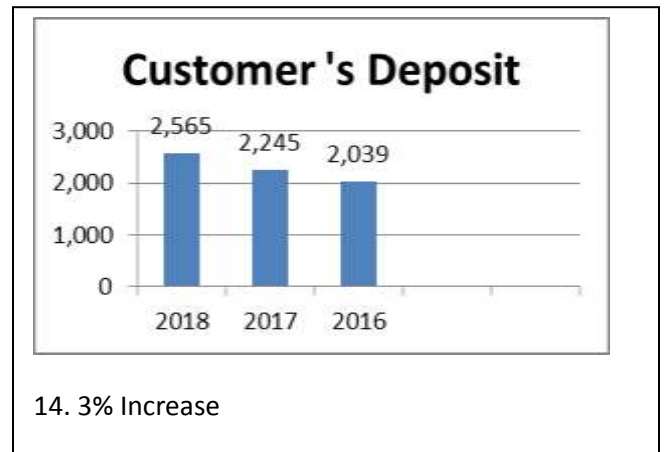
Gross Earning in Billion of Naira



15.2% Increase.



32.0% Increase.



Source: FBN Annual Report

In thousand of Naira	2018	2017	2016
Gross earning	581,83	4595.4Bn	602.3Bn
Net Interest income	304.43	331.5Bn	441.2Bn
Profit Before tax	22.9B	56.8Bn	91.7Bn
Customer deposit	3,104.2	3,143.3Bn	3,198.4Bn
Earnings Per share	0.39Bn	1.43Bn	1.62Bn
Return of Average Asset	0.4%	1.0%	1.3%

Source: Access Report, 2018.

A comparative analyst of the financial earning of commercial banks of the 1980s, 1990s, and that of 21st century are 2000- Data showed a stead and progressive rise in almost all sectors. The table below graphically illustrates these facts.

Value of money market investment outstanding as at year end 2016.

(N Billion covering 1991-2016)

Period	Treasury Bill	Development stock	FBN Bouds	Commercial	Total
1991	5.78	3.35	0.00	0.017	9.2
1982	9.78	3.56	0.00	0.11	13.45
1983	13.48	3.85	0.00	0.18	17.48
1984	10.48	3.78	0.00	0.16	14.42
1985	16.98	4.32	0.00	0.14	21.44
1986	16.90	4.31	0.00	0.22	21.55
1987	25.23	4.91	0.00	0.50	30.64
1988	35.48	4.76	0.00	0.67	40.91
1989	24.13	4.63	0.00	0.60	29.36
1990	25.48	4.40	0.00	0.79	30.67
1991	56.73	3.35	0.00	0.79	60.87
1992	103.33	3.56	0.00	0.32	107.71
1993	103.33	3.85	0.00	1.58	108.76
1994	103.33	3.78	0.00	3.37	110.48
1995	103.33	4.32	0.00	5.25	112.9
1996	103.33	4.81	0.00	10.03	118.54
1997	221.80	4.91	0.00	0.02	226.73
1998	221.80	4.76	0.00	13.39	239.95
1999	361.76	4.63	0.00	7.25	233.68
2000	465.54	4.40	0.00	20.49	490.43
2001	733.76	3.96	0.00	35.35	773.07
2002	733.76	3.96	0.00	35.35	773.07
2003	835.05	3.73	72.56	36.93	938.32
2004	871.58	3.35	72.56	47.57	995.06
2005	304.43	3.17	250.83	80.12	1,188.95
2006	701.40	2.96	643.94	194.59	1542.89
2007	574.93	2.34	1,186.16	193.51	1957.44
2008	471.93	2.68	1,445.40	363.37	2,283.38
2009	797.48	2.48	1,974.93	822.70	3597.55
2010	1,277.10	241	2,901.60	509.00	4,687.7
2011	1,727.91	1.83	3,541.20	189.22	5460.16
2012	2,22.93	1.63	4,080.05	203.01	6407.57
2013	2581.55	1.47	4,22.04	1.05	6,706.11

2014	2,815.52	00	36.64	9.82	2861.98
2015					
Q1	2,865.52	0.00	20.79	6.68	2,892.99
Q2	2,824.95	0.00	8.60	4.86	2,892.99
Q3	2,772.87	0.00	6.75	6.29	2,785.91
Q4	2,772.87	0.00	28.42	0.48	2,801.77
2016					
Q1	2,865.52	0.00	12.31	3.13	2,880.96
Q2	2,901.31	0.00	29.76	0.49	2,932.06
Q3	3,261.81	0.00	45.60	0.00	3,307.41
Q4	3,277.28	0.00	27.80	0.00	3,305.08

Source: CNB Annual Report, 2016.

Technological Advancement And Digital Banking Innovation

The twenty-first century commercial banks in Nigeria have been characterized by digital banking innovation. For instance first bank Nigeria became the only financial institution in Nigeria to achieve 100 million electronic banking transactions per month. In addition, her mobile banking platform achieved a records- breaking feat as the fastest growing mobile banking across Africa. Her U.S.S.D banking channel was also adjudged as the fastest growing U.S.D product with over 1 trillion transaction processed on the platform (FBN Annual Report, 2018). Cutting edge digital banking innovation no doubt require intensive human capacity development and training. Hence, the level of efficiency and effectiveness been experienced in our commercial banks can easily be linked to the massive deployment of banking technological innovation both to source delivery and human capital development.

The digitalization of banking service in Nigeria’s commercial bank has seen in the recent the establishment` of digital laboratory centre. This will provide an enabling environment that will enhance fast –paced and technologically advanced financial service industry.

Another aspect of service delivery in the commercial bank that has been boosted by advance technology is the creation of integrated online complaints portal on the website. This high tech platform provides the opportunity for management to address pressing need of varied customers. For example at first bank Nigeria, the adoption of online complaints portal improved the problem resolution of customers’ complaints from the average of 49% in 2016 to 70% in 2017. Furthermore, her average response rate on social media improved to 36.0% from 75.0% in December 2016 (FBN annual reports and accounts, 2017).

CONCLUSION AND RECOMMENDATION

The contemporary banking system in Nigeria has being leveraging on technology both in enhancing the efficiency of their operations and in improving the capacity and abilities of their staff. This has led to unprecedented rise in the profits earning of commercial banks in Nigeria. Also quality services to customers have been the hallmark of Nigerians commercial banks. The deployment of technological learning tools and operation application have in no small way contributed to the effectiveness currently evident in the Nigerian banking industry.

It is recommended that banks and other profit making organization should improve the budgetary allocation in leveraging on technology both in operation applications and human capacity building strategy. Also, development of cutting edge technological innovation is germane to their effectiveness of the banking industry in Nigeria.

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