
The Role of E-Banking and Commercial Bank in India – Case Study

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Abstract: *The perceive became significant due to the multiplied adoption of the digital banking which has redefined the banking provider both in India and across the world. Electronic banking turned into proxied by means of value of Point-of-Sale transactions whilst business banking overall performance turned into proxied through customers' deposits. Engle-Granger cointegration version was used to research records for the pattern period January 2009 in December 2013. The results show that POS isn't always cointegrated with both the financial savings and time deposits but are cointegrated with demand deposits. It is usually recommended that the financial authorities and commercial banks should embark on an all-inclusive enlightenment marketing campaign for the banking public on the blessings, comfort, and importance of adopting e-banking channels in finishing their transactions.*

Keywords-

I. INTRODUCTION

The affection of era in business the beyond left as an uncompleted puzzle. The lack of its attention evolved to a deeper effect in these days. Developments in era touched also the financial institution department, giving birth to a new product known as online banking or e-banking. What an online banking gives is a possibility to perform distinct bank operations, in which a customer can get right of access to his or her bank account thru the Internet. Such operations may be performed at a variety of utilization from personal pc to a mobile phone. Customers can take a look at the modern account, saving the account, transfer cash and make their payments. Online banking utilization is becoming very commonplace due to the increase of utilization of computers and mobiles which avail the transfers. Despite doubts at its first introduction, customers took time to modify their activities with this technology. On the alternative hand, there was some unsure mind whether online banking is visible extra as a supplement in preference to an alternative product. Nevertheless, most of the people of banks in recent times are supplying it and customers most importantly

locate it useful. Online banking became initiated as an exclusive way of banking and much less expensive. In the customers' angle, it meant less time to spend. The majority of customers at the start had been confronted with a few difficulties but after a period it was very effective; while from the bank's point of view on the beginning that they had a few rate and feared for a large loss. According to some studies, effects for adoption of online banking generally would come after or three years. In the literature overview, we can gift the studies that provide theoretical and empirical evaluation touching on our take a look at. After the third decade of the first online banking users inside the USA, important research followed coverage implications, rules, legal guidelines and banks types. Luckily nowadays, studies befell also for the element of Europe and followed with our specific policy implication, styles of banks, small, big, commercial, home, foreign and linking to the bank performance indicators.

II. RELATED WORK

In this bankruptcy, we will offer with profound studies handling the net banking adoption and their empirical evaluation. We will emphasize the maximum essential and relative ones to our observations. The paper of Ceylan, Emre, Ash Deniz (2008) analyzes the net banking overall performance in Turkey. During a period of time from 1996 to the 12 months 2000, it took into attention 14 business and financial savings financial institution. The authors have used ROE (return on fairness), ROA (go back on asset) and MARGIN as a performance variable. The analysis concluded that inside the first 12 months of adoption typically there may be no advantageous overall performance; it takes or three years to reach a good performance. The outcomes display that the ROE has a nice result in the second 12 months of adoption.

There is likewise a high-quality result for ROA, however, the variable isn't widespread. The have a look at of Husni Ali and Noor Mousa (2011) evaluates the performance of Jordanian homebanks through adopting e-banking offerings. The study became primarily based on three sorts of banks: non-net services, latest adopters

of the e-banking services and early adopters of those offerings. Theratios used in the examine protected Return on Assets, Return on Equity and Margin of Interest asprofitability ratio. The take a look at included a time frame from the yr 2000 to 2009.On the premise ofempirical analysis, all the financial institution forms of the examine, which differed in e-banking adoption had beencompared to the idea of the performance as a degree. Results for the non-internet offerings hadno huge impact on ROE, but they had been big in terms of ROA. For the second one kind thecurrent adopters of the offerings for a duration much less than 2 years, the significance changed into best onMargin. The final sort of the financial institution that implemented electronic banking services it did not have anyimportance on banks profitability for the entire time period. In this situation, it's miles simply visible thatit takes time to be adapted to the e-banking offerings, as for each new product usually, it takestwo or 3 years to see the nice result.

There is any other comparable empirical analysis in India by means of Pooja and Balwinder (2009). Authorsselect eighty-five business banks, some public and personal ones for a period of time from 1998 to theyr 2006. The study is divided into the univariate and multivariate analysis, using 10 economicperformances. The authors desired to prove the overall performance and threat in relation to onlinebanking. In the univariate evaluation, the hypothesis is constructed on how the web and non-online.

Josiah and Nancy (2012) in their study intend to confirm if there is a relationship between e-banking and performance by using Pearson Product- Moment Correlation Coefficient test. Theyfocused on a regression with ROA as the dependent variable, EB (investment in electronic banking measured in Kshs) as independent variable, CDS (number of debit/cards issued by banks) andATMS (number of systems installed by banks). The purpose was analyzing the impact of ebanking, on bank performance. Usually, other studies involved research on the relation of the loan,deposit, and other variables, but Josiah and Nancy (2012) used different variables. They startedwith 43 commercial banks, from which only 27 banks answered positively to the data sent to themanagers. Basically, the study was based on these 27 commercial banks for a period of timefrom 2006 to the 2007 year. Conclusion resulted that E-banking has strong significance on ROA inthe banking industry of Kenya. The relationship between e-banking and performance of bankswas

positive. Overall the whole study concluded that the adoption has made good points,especially the use of debit cards and ATM made the customer access to the money for 24/7.

The comparative analysis by Francesca and Peter (2008) represent a good study because itsevaluation is done in four different European countries like Spain, UK, Finland, and Italy. TheNauthors aim to embrace not only if there is a performance and internet banking service relation,but also checking if there were differences or similarities in mixed banks that use online banking,and pure online banking ones. Fuzzy cluster analysis was used to show the difference into thebank group in performance and other characteristic divide them into groups, as a mixed bank ofinternet banking and they found out it is more trivial. The Panel data used was from 1995-2004a year with 46 banks. Fixed effect panel estimation as a reason for heterogeneity unobserved acrossbanks with different states and dependent variable ROA and ROE. The authors found out thatgenerally there is no such difference in pure online banking and mixed internet banking. Fromthe loan perspective, pure online banking is not so keen on offering loans, whereas a mixedbank is more into that. The findings included that internet banks performed well in term of ROA,ROE. As mentioned above, it is difficult to distinguish between pure and mixed internet banking. Fromthe performance aspect, it could be specified by using some explanation of differences betweensome banks, and also adding the macroeconomic indicator and technology related to the ratios. Itwas observed an increase in the IT departments costs and personnel and the management of thebanks were more oriented towards the online banking offering.

III. MAIN THEME

The main objective of the study is to examine relationship between e-banking activities (proxied by valueof POS transactions) and the performance of commercial banks in India (proxied by customers' deposit).

Specifically, the study strives to achieve the following objectives:

- 1) To determine the relationship between POS transactionsandcustomers' savings deposits incommercial banks in India.
- 2) To examine the relationship between POS transactions and customers' time deposits in commercialbanks in India.

3) To analyse the relationship between POS transactions and customers' demand deposits in commercial banks in India.

Experts have pointed out specific areas in which the e-banking will enhance the quality of life. These include:

- 1) Faster transactions – reducing queues at points of sales
- 2) Improving hygiene on site – eliminating the bacterial spread through handling notes and coins.
- 3) Increased sales
- 4) Cash collection made simple – time spent on collecting, counting and sorting cash eliminated
- 5) Managing staff entitlements

It is also noted that: It reduces transfer/processing fees, increases processing transaction time, offers multiple payment options and gives immediate notification on all transactions on customers' account. It is also beneficial to the banks and merchants; (there) are large customer coverage, international products and services, promotion and branding, increase in customer satisfaction and personalized relationship with customers, and easier documentation and transaction tracking [11]

As a policy instrument, CBN has heaped a lot of praises on the cashless system. CBN has hinged economic development on the cashless system; it sees it as a tool for tackling corruption and money laundering. It has been pointed out that: "Among the reasons glibly advanced by the CBN for this policy include reducing the cost of cash management, making the Indian economy cashless, checking money laundering and the insecurity of cash in transit. Statistics show that cash management in 2009 cost N114.5 billion and this is projected to stand at N200 billion in 2020. In the same vein, the cashless system provides the opportunity of being able to "follow the money" and thus check money laundering across borders. Added to this is the perceived impact on the Naira. The system will reduce the pressure on the Naira. This can only happen if there is effective and standard cross-boarder electronic transmittal's reporting system. Following from the above therefore, it is anticipated that the cashless system will bring with it transparency in business transactions [12]. In the same token, the cashless economy will bring with it a leaning towards banking culture. It is seen that the effort is directed at "ensuring 'cashless economy' and nurturing the culture of saving in the unbanked majority in the country" [13]. Most of Indians are still unbanked, and so we have large proportion of the citizenry not subject to such monetary

policy instruments as are used in the banking system. This development will make CBN's policy tools more effective for achieving economic development and stability goals.

It appears that the most serious appeal of the cashless system comes from the high cost of cash management in India [14]. Other identified reasons for the cashless economy policy are robbing, revenue leakages and inefficient treasury. The system will present some costs to the banking public, there will be some costs to be borne by government and there will be costs for the operators of the system.

Model Specification

To investigate the relationship between e-banking and commercial bank performance in India, we employ the following model

$$BD = f(\text{POST}) \quad (1)$$

$$BD_t = \beta_0 + \beta_1 \text{POST}_t + \mu_t \quad (2)$$

The a priori expectation of the slope coefficient is: $\text{POST} > 0$.

where BD_t is the dependent variable and is the observations of monthly commercial bank deposits, POST_t denotes the monthly observations of the value of POS transactions, β_1 is the coefficient and its effect on real bank deposit and μ_t is the stochastic error term at time t .

The data for this study are monthly series of savings deposit, time deposits, demand deposit, and monthly value of POS transactions in India. The series were obtained from Central Bank of India (CBN) statistical bulletin for various years. The sample period under consideration for the variables ranges from January 2009 to December 2013.

IV. DISCUSSIONS

Descriptive Statistics: Table 1 shows descriptive statistics of the growth series of savings deposits, time deposits, demand deposits, and monthly value of POS transactions in India for the sample period. Notice that value of POS transactions has the highest average growth rate but time deposit has the least growth rate. Also the value of POS transactions has the highest standard deviation but savings deposit has the least. The value of POS transactions is negatively skewed with fat-tails but the commercial bank deposits are normally distributed.

Table 1. Descriptive Statistics

	Mean	Standard Deviation	skewness	Kurtosis	J-B. Stat.
GVPOS	0.0482	0.6959	-4.2541 (0.000)	33.2943 (0.000)	2903.05 (0.000)
GSD	0.0133	0.0238	0.0508 (0.876)	0.1559 (0.817)	0.0852 (0.958)
GTD	0.0036	0.1287	-0.4753 (0.146)	19.7428 (0.000)	960.42 (0.000)
GDD	0.0041	0.0458	0.1324 (0.685)	0.3980 (0.556)	0.5620 (0.755)

Table 2 presents the results of unit root tests performed on levels and growth series of savings deposits, time deposits, demand deposits, and monthly value of POS transactions in India for the sample period. Notice from Table 2 that log of POS does not contain unit root but log of bank deposits all have unit root. Note however that the growth series of all the variables do not contain unit roots.

Table 2. Unit Root Test Result

	% Critical t	Computed t		% Critical t	Computed t
Log-level Series			Growth Series		
LVPOS	-3.4848	-4.1034**	DVPOS	-2.9117	-7.2801***
LSD	-3.4848	-1.5930	DSD	-2.9127	-3.6917***
LTD	-3.4875	-2.3956	DTD	-2.9117	-7.5098***
LDD	-3.4848	-3.1823*	DDD	-2.9109	-8.2960***

V. CONCLUSION

The major impartial of this paper is to analyse the association between the e-banking (proxied by value of Point-of-Sale Terminal transactions) and commercial bank performance (proxied by savings, time, and demand deposits) in India using the Engle-Granger two steps cointegration method. The ADF unit root test shows that the e-banking is integrated of order zero (I(0)) whereas commercial bank performance are integrated of order one (I(1)). The estimates of the Engle-Granger cointegration tests demonstration that POS is not cointegrated with both the savings and time deposits but are cointegrated with demand deposits.

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