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A STUDY ON THE PERFORMANCE OF NEW GENERATIONBANKS IN THE VOLATILE, UNCERTAIN, COMPLEX, AMBIGUOUS WORLD

Milan Sam Mathew
Assistant Professor, Mount Zion School of Business Management, Kadammanitta, Pathanamthitta, Kerala.

Abstract
The banking sector of an economy plays an important role in its growth trajectory; the development goal of a nation could be achieved only with an efficient banking system. The Indian banking sector is undergoing tremendous technological disruptions for the last decade or so mostly in the private sector. The new private sector banks play a leading role in leveraging technology for attaining optimum level of efficiency. The financial system of a nation has an important role to play in bringing the common man close to new innovation and technology and making him at ease with it, thereby aiding in the overall growth of the economy. This paper is an attempt to study the performance of the selected banking scrips for five years by calculating the absolute return on the scrips by benchmarking it with Nifty bank and Nifty 50 indices. The paper also attempts to do a volatility study on the best performing scrip. Five years closing value of individual scrips and market was taken to find out whether there is any correlation between them. The research paper concludes that two of the scrips namely Kotak bank and IndusInd bank have outperformed the market during the period of the study.

Keywords: Banking Performance, Competitiveness, ICT, Volatility, Nifty 50, Nifty Bank.

Introduction
The new private sector banks came into operation from 1993 following the economic and financial reforms. The economic reforms accelerated the entry of new private players into the sector. These private players have brought in latest technologies and efficient operation practices which have transformed the entire banking sector towards a more customer centric approach. The top five new generation banks in terms of market capitalization were selected for the study viz., HDFC Bank, ICICI Bank, Axis Bank, Kotak Mahindra Bank and IndusInd Bank and four of this feature in the Nifty 50.

Background Study
The impact of VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) can be felt in every sectors of the economy, the whole economy has reaped benefits as well as are faced with new challenges. The Indian economy at present faces a situation where there is less domestic demand and low export demand. On the positive side, the plummeting of crude oil prices has helped the country quite substantially to improve its CAD (Current Account Deficit) levels. Moreover, the impact the global events are having on the Indian economy is very tremendous than during any time in the history, which is quite evident from the performance of the stock market in the recent months. The effects of VUCA in the economy will have a tremendous impact on the banking sector of an economy since the banking sector is a significant growth driver for the economy. The landscape of the Indian banking sector has witnessed the hegemony of Public Sector Banks (PSB) for the past few decades. The advent of new private banks after the economic reforms of 1992 has led to the sector experiencing drastic changes in its operations and services. The PSBs still dominate the market with about 80 percent market share but in terms of valuation private sector banks account for over 70 percent of the total market valuation points to the case of higher profitability and investor confidence the private sector has been able to achieve. The biggest threat the banking sector is facing today is the alarming levels of NPA (Non Performing Assets), the new generation banks were quite successful in keeping their NPA levels relatively low compared to the PSBs. The foundation for the superior operational efficiency and hence better competitiveness of the new generation banks is dependent on the leverage of technology.

Significance of the Study
In the ongoing reforms era in Indian banking, there is intense competition among the banks, including the PSBs, and the relative performance of individual banks and their competitiveness in the market decide their survival and growth. Adoption of modern technology, particularly by embracing the rapid advances in information and communication technology (ICT) can definitely add to the efficiency and competitiveness of any bank. There is the need for adoption of modern marketing practices, like customer relationship management (CRM), particularly Electronic CRM (E-CRM), because it will enhance the customer service and loyalty. New generation banks in India have been abreast of changes over the years, particularly in adoption of ICT, and modern ICT-based marketing practices like E-CRM. This gives them an edge over their peers, particularly the PSBs and Old generation private banks. There have been many studies on the performance of PSBs – the largest and the most dominant group of banks in India even right now – and also on the old generation private sector banks, both these groups being more traditional and also much older than the new generation banks.

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Studies focusing on the performance of new generation banks are very scarce. In this context, it is meaningful to study as to how the new generation banks stack up in terms of performance in this VUCA world.

National Stock Exchange (NSE) of India

NSE was incorporated in 1992 to provide a modern, fully automated screen based trading system with national reach. It is owned by a set of leading Indian and International financial institutions, banks, insurance companies, private equity funds, mutual funds, venture capital funds etc. As on March 2015, the number of companies listed is 1427. NSE helps companies to access equity capital, by providing a liquid and well regulated market. NSE offers easy and efficient trading platform for different securities like Wholesale Debt Market (WDM) segment, Capital market segment, Futures and Options (F&O) segment and Currency derivatives segment.

Stock Market Index

An index denotes a statistical measure of changes relating to a representative set of individual data points. It gives information on price movements in markets. Stock market index is created by selecting a group of stocks that are representative of the whole market or a specific sector of the market. An index is computed with reference to (i) Base period, and (ii) Base index value.

Nifty 50

Nifty 50 is a market index representing 13 sectors of the Indian economy. It consists of 50 stocks selected based on its free float market capitalization. The index uses base year as 03November 1995 and the base value as 1000. The Nifty 50 index represents about 66.17% of the free float market capitalization of the stocks listed on NSE as on 31 March 2015.

Nifty Bank

The Nifty Bank index comprises of 12 banking scrips which trade on the National Stock Exchange. The Nifty Bank index is calculated with base date January 1, 2000 indexed to base value of 1000. Nifty Bank index represent about 16.35% of the free float market capitalization of stocks listed on NSE. In addition to the Nifty Bank index, the NSE also includes Nifty PSU Bank Index and Nifty Private Bank index.

Objective of the Study

1. To study the performance of the market index, banking sector index and 5 banking scrips.
2. To study the volatility of the best performing scrip for the 5 years' period FY 2011-2015.
3. To find out the correlation of individual scrips to the market index and the bank index.

Research Methodology

The period under study is from the financial years 2010-11 to 2014-15. The daily closing values of the broader market index Nifty 50, sectoral index Nifty Bank and new generation banking scrips of HDFC, ICICI, Axis, Kotak Mahindra and IndusInd banks for the period forms the sample for the study. The performance analysis is done by calculating the percentage change in the market value during the period of study. Detailed analysis on IndusInd bank, the best performing scrip was carried out to study the volatility patterns. Correlation study was conducted for individual banking scrips to the broader market under Nifty 50 and Nifty Bank based on the closing price and indices during the period of the study.

Literature Review and Research Gap

Manoj P K (2003) [3] in his research paper, "Retail Banking: Strategies for Success in the Emerging Scenario" in IBA Bulletin pointed out the radical changes in Indian banking in the post-reforms era. The need for thrust retail banking was highlighted by the author. Further, the strategies to be followed by banks to remain competitive in the market were suggested. The need for adoption of modern technologies like ICT-based tools, providing superior customer service etc. was pointed out. Last, but not the least, the need for 'human factor' in service was suggested. Yakob, Beal and Delpachitra (2005) [5] studied the seasonal effects of ten Asian Pacific stockmarkets, including the Indian stock market, for the period January 2000 to March 2005. They stated that this is a period of stability and therefore ideal for examining seasonality as it was not influenced by the Asian financial crisis of the late nineties. The authors pointed out that Indian stock market exhibited a month of- the-year effect, because statistically significant negative returns were noted in March and April whereas statistically significant positive returns were observed in May, November and December. Among these five statistically significant months (viz. two negative returns and three positive returns) as above, November generated the highest positive returns while April generated the lowest negative returns. Manoj P K (2010) [6] in his research paper, "Impact of Technology on the Efficiency and Risk Management of Old Private Sector Banks in India: Evidence from Banks Based in Kerala" in European Journal of Social Sciences, studied the impact of technology adoption (like, ICT, ICT-based tools) on the operational efficiency and risk management capability with a focus on the four Kerala-based old private sector banks viz. Federal Bank, Catholic Syrian Bank, South Indian Bank and Dhanalakshmi Bank) using econometric methodology. Strategies for prudent adoption of ICT and such other technologies were suggested for enhanced banking performance. Rakesh Kumar and Raj S Dhankar (2011) [2], in their article titled, “Distribution of Risk and Return:A test of normality in Indian stock market”, analyzed the normality of returns and risks of Indian stock market based on different rests viz. daily, weekly, monthly and annual bases. They used parametric and non-parametric test to prove these objectives. They have selected Sensex, BSE 100 and BSE 500 indices from Bombay Stock Exchange (BSE) for the period 1996 to 2006. The results show that, the returns are negatively skewed for all the indices over the period. Asymmetry is found in risk and return in case of daily and weekly returns i.e., risk and return relationship seems inconsistent in case of daily and weekly returns. Monthly and annual return, however, are found normally distributed for all three indices over the period of time. The study noted the importance of time horizon in investment strategy for Indian stock market.

Raja sethu Durai and Saumitra Bhadurai (2011) [7], in their article, “Correlation dynamics in Equity markets”, made a correlation analysis of the Indian equity market with those of world markets, using indices like NASDAQ Composite (USA), S&P 500 (USA), FTSE100 (UK), DAX 30 (Germany) – all relating to developed markets. KLSE composite (Malaysia), Jakarta composite (Indonesia), Straits times (Singapore), Seoul composite (South Korea), Nikkei (Japan),Taiwan weighted index (Taiwan) and the S& P CNX Nifty (India) are classified as Asian market, for the period 1997 to 2006. The logistic smooth transition regression (LSTR) model results for the conditional time varying correlation of S & P CNX Nifty with six Asian market and S & P CNX Nifty with four developed markets show that there is a significant regime shift in the year 2000 and there is a considerable increase in integration inthe second regime. This shows that the S&P CNX Nifty index moves towards better integration with other world markets but not at a very noteworthy phase. Kirti, Arekar and Rinku Jain (2011) [1] in their article, a snapshot of the market performance during2007-2010 is presented and compared with the major overseas markets. The study analyzed the market performance of different sectors, like, information technology (IT) sector and banking sector with respect to market. Also, they studied that which sector is impacted most during the recession period. Finally, the authors studied as to which sector performed good and bad, in times of global recession; and also as to sector that performed well after the global recession.

William George A J and Manoj P K (2013) [9] in their research paper, “Customer Relationship Management in Banks: A Comparative Study of Public and Private Sector Banks in Kerala” in International Journal of Scientific Research made a comparative study of the CRM experience of public and private sector banks, their empirical study being done in Kerala. It was noted that private sector banks were ahead of their public sector counterparts in customer service, the staff of private sector banks had better acceptance among the customers, and that the customer satisfaction is better in customers of private sector banks. Strategies for improved customer satisfaction and hence better performance of banks were suggested by the authors. Neeraja James and Manoj P K (2014) [8] in their research article ‘Relevance of E-Banking in the Rural Area – An Empirical Investigation’ examined the significance of E-banking services with respect to a typical village in Kerala. The authors made suggestions for more effective reach of banking in rural areas, which include, inter alia, improving the e-literacy of rural folk. A paper by Manoj P K, Jacob Joju, and Vasantha (2014) [10], “Impact of E-CRM on Commercial Banking: An Empirical Investigation with Reference to Private Sector Banks in Kerala” published in International Journal of Applied Services Marketing Perspectives empirically studied the e-CRM services provided by the four Kerala-based old private sector banks using the feedback from 80 customers and 20 bank employees. Strategies were suggested for meaningful use of E-CRM for enhanced performance and competitiveness of banks which included, inter alia, customer segmentation, product development and process innovation etc. In an empirical study done by Jacob Joju, Vasantha S., & Manoj P. K. (2015)[11], “E-CRM: A Perspective of Urban and Rural Banks in Kerala” in International Journal of Recent Advances in Multidisciplinary Research, the authors made a comparative study of the acceptance of e-CRM among urban and rural customers in Kerala. It was pointed out that e-CRM was more accepted among the urban customers than their rural counterparts, and also that rural customers had a better inclination towards ‘human factor’ in services than their urban counterparts. About the relevance of bank marketing in the ongoing era of fast ICT advances, a recent paper by Manoj P. K (2016) [12] “Bank Marketing in India in the Current ICT Era: Strategies for Effective Promotion of Bank Products” in International Journal of Advance Research in Computer Science and Management Studies, the need for effective adoption of ICT for smooth delivery of services was noted. Six suggestions were made for more effective bank marketing.

Though there are large number of studies on banking performance, impact of ICT on banking performance, marketing efforts of banks including their CRM and e-CRM initiatives and also their influence on banking performance, etc. studies that focus on performance of new generation banks are very scarce. Hence, this study seeks to bridge this research gap by making a study of the performance of new generation banks in India during the period FY 2011-2015.

Data Analysis and Interpretation

Table No. 1: Details of Indices Selected for the Study

Index	Date of Implementation	Base Value	No. of Companies included in the Index	No. of Companies included in the CNX Nifty Index	Proportion with CNX NIFTY Index
Nifty 50 Index	3rd Nov. 1995	1000	50	--	--
Bank Index	1st Jan. 2000	1000	12	7	18

Table No. 2: Performance Analysis of Individual Scrips and Market Iindices

Index	Year Ending Average					Absolute Return (%)
	2014	2015	2016	2017	2018	2014-18
Nifty 50	5583.54	5242.74	5520.34	6009.51	7967.34	42.69
Nifty Bank	10828.5	10066.3	11088.7	11139.4	16570	53.02
HDFC	2145.56	1014.93	606.753	661.869	893.859	-58.34
ICICI	1014.53	922.623	999.36	1046.39	1100.36	8.46
Kotak	597.036	473.642	610.712	708.987	1078.81	80.69
Axis	1329.08	1144.84	1183.23	1222.44	898.394	-32.41
IndusInd	230.704	269.649	365.242	431.865	673.805	192.06

Source: Secondary data

The absolute change or growth in the market indices and individual scrips can be calculated using the following equation.

$$\textbf{Absolute Return} = [(\text{Value}_{Final} - \text{Value}_{Initial}) / \text{Value}_{Initial}]*100$$

The Nifty Bank sectoral index has outperformed the Nifty 50 market index by margin of 11 percent, both giving positive returns. Among the individual banking scrips, IndusInd Bank gave the highest returns of 192 percent , Axis Bank and HDFC Bank gave negative returns of -32.41 percent and - 58.34 percent respectively going against the general market trends during the period of the study.

Table No. 3: Descriptive Statistics: Indusind Bank

Particulars	Years				
	2010-11	2011-12	2012-13	2013-14	2014-15
Mean	230.704	269.649	365.242	431.865	673.805
Std. Deviation	34.05761	21.10168	46.13438	43.34375	135.54671
Minimum	176.35	225.85	295.55	337.30	476.55
Maximum	303.00	331.90	442.70	529.35	944.50

Source: Secondary Data

The high performing IndusInd Bank scrip was selected for the volatility study. The mean for the different periods show an increasing trend which shows a steady growth in the performance. The above table reveals that the variation in the prices were maximum for the financial year 2014-15, the period also shows the maximum growth in the price. The year 2011-12 registered the lowest growth and reported the least standard deviation.

Table No. 4: Correlation between Individual Scrips and Market Indices

	NIFTY 50	HDFC	ICICI	KOTAK	AXIS	INDUSIND
NIFTY 50	1	-0.058	0.171	0.861	-0.375	0.912
NIFTY BANK	0.966	-0.019	0.1	0.837	-0.359	0.904

Source: Secondary Data

Correlation study reveals that ICICI bank, IndusInd bank and Kotak Mahindra bank has shown positive correlations to the Nifty 50 and Nifty bank for the 5 year period, out of which the IndusInd and Kotak Mahindra scrips exhibited high positive correlations. Whereas HDFC bank and AXIS bank has shown negative correlations.

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Findings of the Study

1. The performance analysis reveals that the sector under Nifty Bank outperformed the market under Nifty 50 for the period of the study. Individual scrips of IndusInd Bank and Kotak Mahindra Bank registered significant growth to beat both Nifty 50 and Nifty Bank.
2. The mean of IndusInd bank showed a regular growth for the entire 5 years with the standard deviation at the maximum for the period with the largest mean. This clearly indicates that a period of growth is not averse to volatility.
3. Correlation analysis showed that only two scrips namely, IndusInd Bank and Kotak Mahindra Bank showed high correlation. Interestingly these two scrips are high performers in terms of growth. The use of negatively correlated scrips provides further scope for study.

Concluding Remarks

The new generation banks play a pivotal role in the ongoing transformation processes in the banking sector and are instrumental in attaining the holistic goal of financial inclusion. The study has found out a high correlation between the Nifty 50 and Nifty Bank indices, with both the indices treading a positive growth path wherein the Nifty Bank has outperformed the market. All these are indicators of a healthy banking sector able to survive the volatilities in the market despite the numerous challenges at hand. Also it is not essential for high performing scrip to evade volatility as is evident from the case of IndusInd Bank. The performance of individual scrips presents a mixed bag, with two scrips (Kotak Mahindra Bank and IndusInd Bank) outperforming both the Nifty and Nifty Bank in a considerable level and two scrips (HDFC Bank and Axis Bank) carving a negative growth trajectory. It is of utmost importance for the new generation banks to be efficient in their basic operations to face the uncertainties and volatility in the dynamically evolving economy.

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