BRICS banking: review of green banking initiatives among the BRICS nations

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Abstract

BRICS *is the acronym for an association of five major emerging national economies:* ***Brazil, Russia, India, China*** *and* ***South Africa****. The grouping was originally known as "BRIC" before the inclusion of South Africa in 2010. Banking industry has been witnessing tremendous transformation among the BRICS nations, undoubtedly the industry will be a major contributor to the respective nations.*

The 'green economy' has been around as a concept since the 1970s but gained relevance again in the wake of the global economic recession in 2009 as government leaders looked towards new economic opportunities through sustainable, equitable and resilient economic growth. The literature review carried out, identified the various initiatives implemented by BRICS nations. Technological development has been a major growth driver for the banking industry among the BRICS nations. Though the growth rate has been slow, banks, government and regulators are closely working towards improved penetration among the respective countries.

Through the extensive literature review, research gaps were identified, which majorly focuses on the measures that can improve the market penetration of technological products and hereby move towards environmental friendly banking transaction. This research paper aims to study the current green initiatives undertaken by the BRICS nations and the market penetration in the respective countries hereby suggesting the means and measures to improve the large untapped banking population. This Research Paper is based on the Secondary Research, with detailed review of articles and reports published in the BRICS Annual Conference Proceedings and the Reports and Statistics published by the Banking Regulators of BRICS Nation.

Based on the data collection and extensive literature review, the paper attempts to come out with SWOC analysis among the BRICS nations with reference to banking operations and green initiatives.

1.0 Introduction:

The 'green economy' has been around as a concept since the 1970s but gained relevance again in the wake of the global economic recession in 2009 as government leaders looked towards new economic opportunities through sustainable, equitable and resilient economic growth. Banking policy can play a supportive role in addressing the institutional and market challenges to the provision of bank credit and investment for the green economy. Although the banking sector is affected directly and indirectly by environmental sustainability challenges, it also plays an important role in building financial resilience and creating economic opportunities for adapting to and managing environmental risks. Most large international banks have environmental and social governance programmes, but these are generally not core features of bank management and business strategy. Banking policy can support the banking industry by promoting the mainstreaming of green banking practices and supporting banks in reallocating credit and investment capital to sustainable sectors of the economy. The literature review carried out, identified the various initiatives implemented by BRICS nations. Technological development has been a major growth driver for the banking industry among the BRICS nations. Though the growth rate has been slow, banks, government and regulators are closely working towards improved penetration among the respective countries.

2.0 Literature Review:

Khalid Zaman * Alias Abdullah (2016), examined the four pillars of green growth (or green environment) i.e., energy, environment, health and wealth in BRICS countries namely, Brazil, Russia, India, China, and South Africa, over the period of 1975–2013. The study examined the relationship between energy consumption, environment, health and its resulting impact on BRICS' economic growth.

Wendy Cowan & Rangan Gupta (2014), conducted a study on the link between electricity consumption, economic growth and CO_2 emissions in the BRICS countries. The study pointed out the much important need to implement ecofriendly banking operations for sustainable development among the BRCS Nations.

Rajesh Pillania (2013), conducted a study on green management practices for sustainable banking development. The study also highlighted the need and importance of technological products over manual operations.

Verma (2012) stated that Indian banking is gradually coming to realize that there is need from a shift from the 'profit, profit and profit motive to 'planet, people and profit'. Green Banking involves pursuing of financial and business policies that are not hazardous to environment and help to protect environment. The purposes of Green Banking are to use resources with responsibility avoiding waste and giving priority to environment and society.

Thombre (2011) argued that environmental impact of bank's external activity is huge though difficult to estimate. Thus, encouraging environmentally responsible investments and careful lending should be one of the responsibilities of the banking sector. The bank should go green and play a pro-active role to take environmental and ecological aspects as part of their lending principle, which would force industries to go for mandated investment for environmental management, use of appropriate technologies and management systems.

3.0 Research Methodology:

3.1. Objectives of the study:

- To study the Green Banking trends among the BRICS Nations.
- To understand the market penetration of green banking users among the BRICS nations.

3.2. Sources of data:

- The data collected for the study and analysis is from the secondary sources.
- Data collected are from various journals, articles, books and similar publications.
- Considerable information was also collected from various finance websites and e-newsletters.

4.0 Green Banking: Road towards sustainable development among BRICS Nations:

BRAZIL has followed a path of combined voluntary and mandatory approaches to sustainable banking driven by the need for stronger efforts in environmental conservation and to foster sustainable development. Facilitated by the banking association, FEBRABAN, voluntary Green Protocols were first adopted by five Brazilian state-owned banks in 2008 and then by commercial banks in 2009. In 2014, the Central Bank of Brazil (BCB) published a mandatory Resolution on Social and Environmental Responsibility for Financial Institutions. A 2016 study estimated that 11% of banks' lending was directed to "new energy" and low-carbon agriculture.

RUSSIA also has witnessed great improvements in the green initiatives in all the major sectors. In 2013, the European Bank for Reconstruction and Development (EBRD) provided credit lines of €150 million for corporate energy efficiency projects in Russia and provided €75 million credit lines to promote more lending for energy-efficient consumer real estate.14 Similarly, the

International Finance Corporation (IFC) has provided US$242 million in credits for energy efficiency programs for small and medium-sized enterprises and housing programs in Russia. Also, the EBRD has provided €200 million in credits for four private Russian banks that are part of a Sustainable Energy and Carbon Finance facility. The Russian Central Bank issued recommendations in 2014 to listed joint-stock companies that they take into account the environmental risks that they are exposed to. Indonesia has taken a step in this direction with its regulatory body – the Financial Services Authority – announcing a Sustainable Finance Roadmap in 2014 that would require all financial firms and banking institutions to develop business plans and risk management strategies to offer green financial products and lending guidelines. Bank governance is also affected by stewardship codes and international efforts to recognize whether bank boards should consider environmental and social governance issues in reviewing bank management and whether failing to do so is a failure of the board's fiduciary duty to the bank and investors. For instance, under article 69 of the Russian Code of Corporate Governance, the board of directors of joint stock companies are required to assess the financial and non-financial risks that relate to environmental risks, as well as social, ethical, operational and other risks, and to establish tolerable levels of risk in these areas.

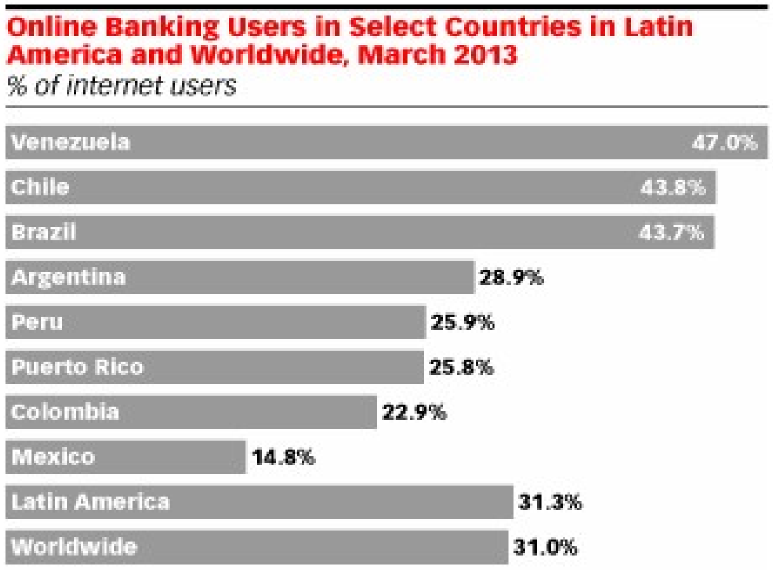
INIDAN banking industry is moving towards branchless banking as a part of their green initiatives and the regulator is in a full swing towards tapping the large unbanked population. India being one of the most fast emerging economies of the world has a vital role in ensuring that development and growth are sustainable in nature and the any adverse impact of industry on ecology should be avoided. The country emits 6% of the total global CO2 emission2 with the metropolitan cities contributing the maximum to greenhouse emissions. The Reserve Bank of India (RBI) issued a circular Dec 2007, emphasizing the important role banks play in establishing institutional mechanisms to contain sustainability and so to act responsibly. One of the primary lenders to MSME sector, SIDBI, has committed itself to achieve sustainability by incorporating Environmental and Social (E&S) aspects in its core business.

CHINA adopted a policy-based approach to sustainable banking to help tackle profound environmental problems and support the transition to a green, inclusive and resilient sustainable growth path. The People's Bank of China (PBOC), China Banking Regulatory Commission (CBRC), and Ministry of Environmental Protection jointly issued the "Green Credit Policy" in 2007, followed by CBRC's "Green Credit Guidelines" and a monitoring framework to guide the implementation. At the end of 2015, CBRC's green credit statistics for the top 21 Chinese banks (accounting for around 80% of total banking assets) show the majority have adopted E&S risk management practices and Green Credit now makes up approximately 10% of these banks' portfolios. Building on this experience of greening the banking system, the People's Bank of China (PBOC) is leading efforts to green the whole financial system in China beyond banking.

SOUTH AFRICA has been witnessing tremendous growth in terms of ecofriendly banking initiatives. In line with its commitment to environmental sustainability in South Africa, Nedbank has launched Africa's first 100 percent "green" bank. The green bank, which uses an innovative hybrid power installation that runs independently off the national grid. South African environmental law is robust, and, as it stands, a financial institution could be held responsible for environmental transgressions of their clients. This is a concern for Absa, First Rand, Nedbank, and Standard Bank (the 'big four'), which finance companies and projects, as well as individual clients. In addition, the Government of South Africa through the Department of Environmental Affairs (DEA) has set up a Green Fund to support the transition to a low carbon, resource efficient and climate resilient development path delivering high impact economic, environmental and social benefits. The allocation of R800m represents the initial resources available for disbursement by the Green Fund. The DEA has appointed the Development Bank of Southern Africa (DBSA) as the implementing agent of the Green Fund.

4.0 Green Banking - Market Penetration among BRICS Nations:

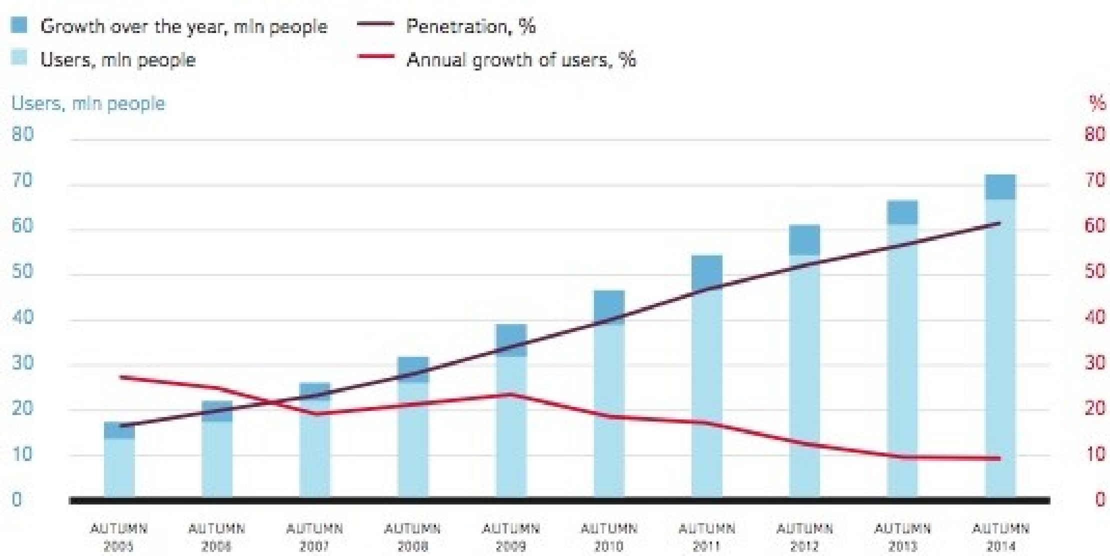
March 2015 data from comScore showed **BRAZIL** as one of the leading online banking markets in Latin America, with 43.7% of internet users accessing web banking services. In top of high penetration rates, Brazil also showed intense usage when compared to more developed markets worldwide.



(**Source: ComScore Media Metrix, 2015**)

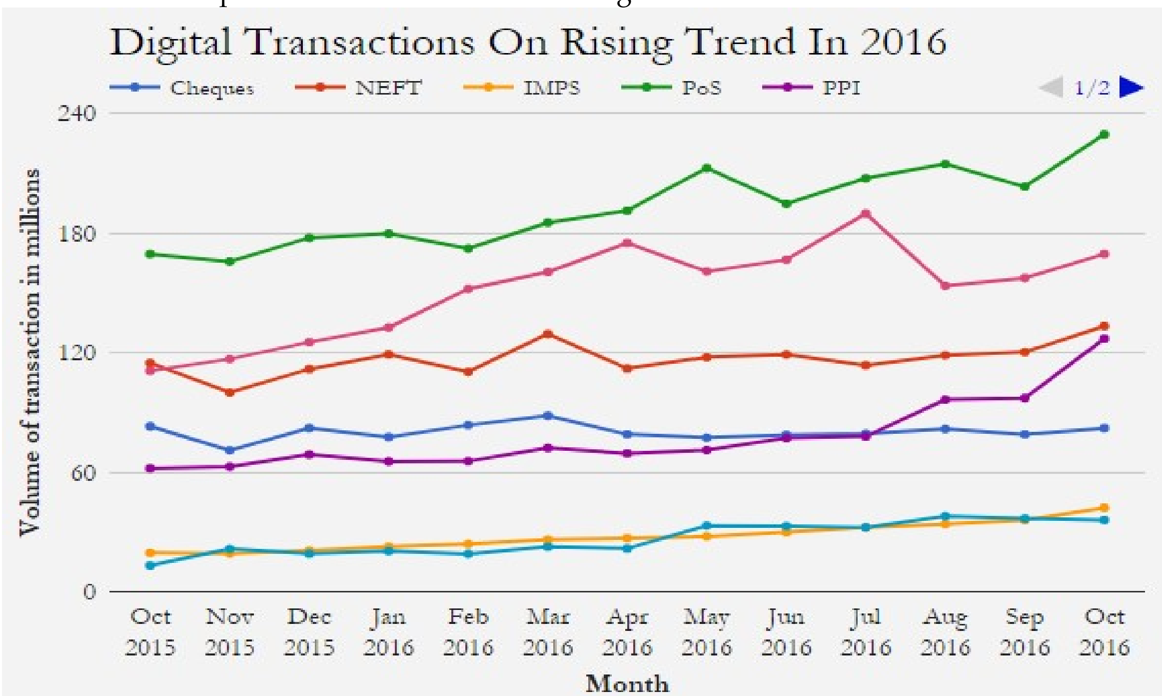
The popularity of internet-banking in **RUSSIA** is rising every day and this is not surprising, because facilities provided to users let them not only actively use and control the movement of funds on bank settlement, but also opens up the possibility to everyone to be more mobile and economize the time for payments. For the recent years in Russia, the amount of individual bank accounts with the ability of the distance access through mobile devices increased more than by 20 times. Every year more and more banks start to offer mobile banking services.

(***Internet Banking User Penetration in Russia***)



The **INDIAN** banking industry has undergone unprecedented rivalry among unconventional banking organizations. The introduction of latest technologies along with the deregulation of the banking sector has attracted new players to make a foray into the industry

rapidly and competently. Online banking has made things much easier and has saved lot of time of bank employees as well as general public. According to McKinsey report (2011) (fig. 4.1), with 120 million internet, India has third largest internet in the world after China and the US and India targeted for 330--370 million internet users in 2015 which will make it second largest.
India has seen rapid increase in the digital transaction since last three years. The figure below clearly explains the digital transaction during 2016, which has shown a rapid increase over last one year. Financial literacy is another major challenge for the regulator and it has put in place many policies to increase the market penetration of the online banking users in India.

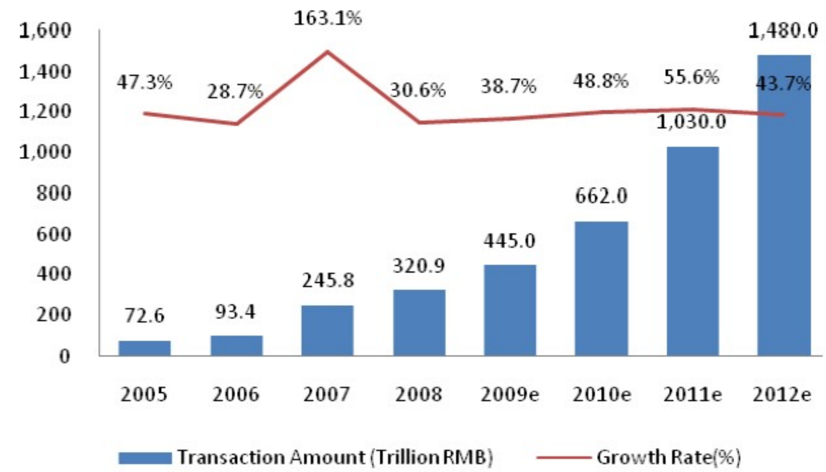


(***Source: RBI Bulletin 2016***)

A revolution is underway in private online banking in **CHINA**. According to data from the China Internet Network Center, in 2015, Internet Banking, online trades in stocks and online payment were hot areas of growth, with user utilization rates expanding a whopping 54 percent and 37 percent respectively. Online payment and e-commerce also matured quickly in 2015, with 60 percent of Internet users reportedly using the Internet to carry out those activities, while trading in stocks and funds have a long runway for growth with a 9 percent utilization rate amongst Chinese Internet users. Other areas of growth are online banking, online travel bookings and online video that registered user growth of 19 percent, 17 percent and 16 percent respectively.

Currently, the four major state-owned banks (Bank of China, China Construction Bank, China Industrial and Commercial Bank of China and Agricultural Bank of China) have begun an Internet banking service, and then the majority of other domestic commercial banks launched online banking services as service-added to existing branch activities. They established a home page to actively enhance the customers' Internet banking experience. The banking network system, when established, was already relatively complete.

As a result, industry classification and market positioning operations were more streamlined and more mature. Commercial banks in China are now paying attention and expending efforts on the banking network, funds, technology, and human resources in order to improve their services



Source: China Online Banking Research Report 2008-2009 (iResearch, 2007)

Figure 1. Transaction amounts of Chinese Internet Banking from 2005-2012

Though **SOUTH AFRICA** is witnessing upward trend in the banking business, but a study says many South Africans still believe that visiting a branch is safer than online platforms. This is according to a survey by security firm Kaspersky Lab in conjunction with B2B International that says 43% of South Africans feel that traditional over-the-counter transactions are safer than internet banking. Conversely, an overall majority of South African bank customers (64%) feel vulnerable when conducting online transactions. Despite that, Kaspersky found that when people go online, they fail to take basic security measures to protect their accounts.

5.0 SWOC Analysis:

SWOC	BRAZIL	RUSSIA	INDIA	CHINA	SOUTH AFRICA
STRENGTH	Strong banking regulations. Large banked population. Technological advancements.	Involvement of mixed players. High banked population. Financial literacy	Banking regulations with presence of high quality reforms and rules. Presence of mix players in the industry.	Banked population. High involvement of government players. Strong regulatory policies.	Growing economy. Mixed player involvement. Financial literacy.
WEAKNESS	Financial literacy among the masses Legal system.	Political imbalance. Economic crisis. Fall in the growth of IB Users	Legal system. Large unbanked population. Financial Literacy	Financial literacy. Financial inclusion. Untapped IB user population	Technological advancement and acceptance from operations. Limited IB Users

OPPORTUNITIES	Banking expansion. Technological advancements. Limited online banking users	New banking regulations and Reforms. Tap the untapped IB users	Limited IB users Technological advancements	Financial literacy on IB usage for the huge banking population Technological advancements	Bank expansion with more technical infrastructure investment Huge demand for IB among non-users
CHALLENGES	Policy implementation To strengthen the trust among the banking users.	Economic sustainability. Strengthening the security aspects of IB users.	To strengthen the trust among the banking users. Strengthening the security aspects of IB users.	Infrastructure Ensuring high security standards for better performance	Infrastructure Ensuring high security standards for better performance.

6.0 Conclusion:

The present era of industrialization and globalization has added a lot of comfort and luxury to human life but has also lead to an alarming situation of huge environmental degradation incorporated with all the involved activities. Today, the entire sector in the world economy is facing huge challenge to deal with the environmental problems and their related impacts in their day to day businesses. Not only the business firms have realized the importance of the environment but more than that an immense awareness is seen among the consumers and general public for the same. Due to all these reasons the business organizations have started modifying their activities and strategies so as to ensure protection to our natural resources and environment. In this context the financial sector and especially the banks can play an important role in promoting environmental sustainability.

Banking in BRICS countries have also realized the importance of green initiatives in the banking industries and is now witnessing some good developments with respect to the investment in technological infrastructure and also increased market penetration among the banking population. Though, the growth rate is at a good level, more focus should be on enhancing the security features of the technological product, which is a key concern today from the user among the BRICS Nations.

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