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# A Study On The Relationship Between Financial Innovation And Bank Sustainability- A Case Study Of State Bank Of India

**[1]Dr. Devangana Saikia, [2]Dr.S.Kumar**

[1]Assistant Professor, Dept.Of Commerce and Management, Assam down town University.
[2]Assistant Professor, Department of Economics, S. Thangapazam Law College, Vasudevanallur, Tamilnadu, India.

**Abstract:** This study looks at the various forms of financial innovations that have continuously taken place in the provision of financial products /services in India over a period of 5 years. Over a period of time, India has experienced continued growth in the adoption of various non-cash modes of payment hence the need for continuous studies to establish the effect of these financial innovations in the financial services sector. Previously banks were interested only in the economic impacts of the banks but banks are now conscious of the environmental and social impact of their policies as it might affect the quality of assets and also rate of return of banks in the long run. The objective of this study was to establish the effect of financial innovation on bank sustainability. The present study is descriptive as well as analytical in nature. The State Bank of India has been selected for study deliberately being the largest commercial banks in India having wide coverage spreading throughout the country. The data, for the purpose of study, were collected from the annual reports of SBI, Bank Sustainability Report of SBI, journals and other relevant published documents. The study was conducted for a period of 5 years, from 2015-16 to 2019-2020. The analysis of data leads to the conclusion that financial innovation has increased over the period of time. However financial innovation has less impact on bank sustainability in Indian banking sector.

**Keywords**- Financial innovation, bank sustainability, financial performance

## 1. Introduction

Innovation means the introduction or application of something new- either new goods and services or new ways of producing them. Innovation differs from invention in one essential aspect. Innovation consists of firms developing new products or new production processes to better perform their operations, in which case the new products could be based on the new processes (Tufano, 2002; Lawrence, 2010)[1]. Lerner (2002)[2] puts forward that innovations are not just critical for firms in the financial services industry, but also affect other companies; for instance, enabling them to raise capital in larger amounts and at a lower cost than they could otherwise and that innovation is an important phenomenon in any sector of a modern economy.

Financial innovation has been an integral component of economic activity for several millennia (Goetzmann, 2009)[3]. According to Nofie (2011)[4], innovations in the finance sector is the arrival of a new or better product and/or a process that lowers the cost of producing existing financial services. Akamavi (2005)[5] notes that innovation in the financial services sector has led to recent fundamental changes including; deregulation, increasing competition, higher cost of developing new products and the rapid pace of technological innovation, more demanding customers and consolidation of corporations. Financial innovations are the outcomes of various government regulation, tax policies, globalization, liberalization, privatization, integration with the international

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financial market. According to John Finnerty "Financial innovation involves the design, the development and the implementation of innovative financial instruments and process and the formulation of creative solution to problems in finance".

### 1.1 Bank Sustainability

Bank sustainability means using money with conscious thought about its economic, environment and social impacts and with the support of savers and investors who want to make a difference, by meeting present day needs without compromising those of future generations. This definition of bank sustainability captures the spirit of the concept as originally proposed by the WCED (or which is popularly known as Brundtland Report) in 1987.Thus, it takes into account three aspects, viz.- economic, environmental and social performances made by the banks which together happen to make the concept of 'sustainability' as originally proposed by different international bodies.

Economic performance-Economic/ financial performance refers to how well a firm can use assets from its primary mode of business and generate revenues. Generally financial performance may be used to refer to firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. There are many different ways to measure economic performance. Tavitiyan, Zhang and Qu (2012)[6] indicate that return on assets (ROA), average annual occupancy rate, net profit after tax and return on investments (ROI) are the commonly used financial or accounting indicators by firms. According to Bagorogoza and Waal (2010)[7] other measures of performance are profitability, productivity, growth, stakeholder satisfaction, market share and competitive position.

Environmental performance: Environmental aspect of sustainability means performing activities in such a way that maintain stable resource base, avoid over- exploitation of renewable resource systems or environmental sink functions.

Empirical research from 1990 concluded that traditionally banks were not interested in their own environmental situation or that of their clients. But this situation is now changing. There is growing awareness in the financial sector that environment brings risks (such as a customer's soil degradation) and opportunities (such as environmental investment of funds) Banks are now conscious of the environmental impact of their policies as it might affect the quality of assets and also rate of return of banks in the long run(Sahoo & Nayak,2008)[8].

Social performance: A socially sustainable system must achieve fairness in distribution and opportunity, adequate provision of social services including health and education, providing better quality products or services to the society.Strengthening business ethics, providing better quality products/services, protecting rights of customers, setting up channels for customers to address complaints etc.-these are common societal performance elements of banks. Addressing these elements along with their core business, help the banks to improve the level of customer satisfaction for increasing market share and profits ultimately.

### 1.2 Financial Innovation And Bank Sustainability

The financial crisis has created a new realisation of our financial world, leading to the destruction of institutionalised practices and depicting an emerging motivation for change. These institutionalised practices have a direct impact on the society, the environment and the economic development, the three pillars of sustainability. This impact is interpreted in the following question: "how can we create a financial system that sustains the economy, the people and the planet itself?" The link between the financial sector and sustainability or sustainable development is financial innovation. As a concept, financial innovation "embraces changes in the offerings of banks, insurance companies, and investment funds and other financial service firms, as well as modifications to internal structures and processes, managerial practices, new ways of interacting with customers and distribution

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[6] Tavitiyaman, P., Zhang, H. Q., and Qu, H. (2012). The Effect of Competitive Strategies and Organizational Structure on Hotel Performance. *International Journal of Contemporary Hospitality Managemen* , 24 (1), 140- 159

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channels" (Mention and Torkkeli, 2012)[9]. Moreover, the emergence of the role of the user who is willing to contribute both to the development of a service, and also to the technology per se behind the implementation of collaborative services since "users often develop and self-provide important financial services before banks or other types of financial service producers begin to offer them" (Oliveira and von Hippel, 2011)[10].

## 2. Review Of Literature

According to Noyer (2007), [11]financial innovation has not only opened up new opportunities for the sector participants, but also increased new market players arising from new products in the financial market. These developments have increased the range of financing and investment opportunities available to economic agents besides changing the role of banks with expanded diversification choices in terms of portfolio and sources of financing.

Batiz-Lazo and Woldesenbet (2006) [12]in their examination of the dynamic financial innovation in the banking sector in the U. K stipulated that a distinction between product innovation and process innovation is necessary as much as the adoption of each type of innovation has its own characteristics and has different impact on banking performance.

Shirley and Sushanta (2006) [13]studied the impact of Information Technology (IT) on the banking industry and analyzed both the theoretically and empirically how Information Technology; internet banking, electronic payments, security investments, and information exchanges related spending can affect bank profits via competition in financial services that are offered by the banks. Their studies covered 68 US banks for a period of over 20 years to estimate the impact of IT on profitability of banks. They found out that though IT might lead to cost saving, higher IT spending can create networks effect lowering banks profitability.

Agboola (2006) [14]in his study found out that technology was the main driving force of competition in the banking industry. During his study he witnessed increase in the adoption of automatic teller machines (ATMs), electronic funds transfer (EFT), smart cards, electronic home and office banking, and telephone banking. Agboola (2006) indicates that adoption of ICT improves the banks' image and leads to a wider, faster and more efficient market.

Simpson (2002) [15]suggests that e-banking is driven largely by the prospects of operating cost minimization and operating revenues maximization. A comparison of online banking in developed and emerging markets revealed that in the developed markets, lower costs and higher revenues are more noticeable.

## 3. Relevance Of The Study

The relationship between the growing investment in technology based bank innovations and banks' sustainability needs to be studied to establish whether innovations have contributed to the sustainability of the banking sector. The origins of financial innovations have attracted little empirical scrutiny. Frame and White (2008) point out that one of the major barriers to the study of financial innovation has been a paucity of data. The literature on financial innovation is still evolving as new financial instruments; financial services and operational techniques continue to enter the market. The existing scanty literature has focused on evolution of the financial system in the developed world with few studies focusing on developing countries.

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Financial innovation needs to become more social and to further focus on people, economy and environment. Financial innovation needs to make the best of limited resources and contribute to the world and social progress. It is simply a matter of incentives. The current debt and subprime crises, which have been developed into a serious societal crisis leading to the deterioration of human values, have shown an imperative need for collaboration among leaders of the public and private sectors so as to develop together a new global financial system based upon commonly interrelated regulatory policies, efficient technologies, trust, ethics, transparency and collaboration for value co-creation and competitiveness. The pillars under which financial innovation should be developed are related to the real and not virtual demands of the economy and finance, in line to the development of global, national and local economy, in accordance to the consumer/user financial maturity and needs and under effective and efficient regulatory framework and supervision.

### 3.1 Objectives:

1. To examine the nature and extent of Financial Innovation adopted by State Bank of India.
2. To examine the relationship between Financial Innovation and Bank sustainability of State Bank of India.

### 3.2 Research Question:

1. Whether there is any positive relationship between bank innovation and bank sustainability of SBI?

### 3.3 Variables to Be Studied

Net profit, Total Income, Return on Assets, deposits, Promoting green products, Contribution towards health and education

## 4. Methodology

The present study is descriptive as well as analytical in nature. The data are collected from both primary and secondary sources. Primary data are collected by interviewing bank officials. Secondary sources of data are collected from the annual reports of SBI, bank sustainability report of sbi, journals and other relevant published documents. For analyzing the data tables are used. The study is conducted for a period of 5 years, from 2015-2016 to 2019-2020.

### 4.1 Scope of the Study:

For the purpose of the study, the word “Financial Innovation” is confined only to financial product and financial process innovation. Product innovation refers to development of a totally new product or improved product or service. The product innovation is limited to the outcome of process. Process innovation refers to finding a novel way of achieving an output which was traditionally done in different way. In the process innovation the final product is not touched, but the method of bringing out the product is improved.

In the study the word “Bank Sustainability” will confine only to the economic and social performances of the bank.

## 5. Analysis And Findings

**Table 1:** Nature and extent of financial innovation adopted by SBI

| Product | Date of launch | Number of users as on 2019-2020 |
|---|---|---|
| No. of ATM | 25th February, 2004 | 59000 nos |
| Debit card holders | October, 1998 | 23.30 crore |
| Internet bank users | 1990s | 2.55 crore |
| Mobile banking users | 1990s | 1.77 crore |
| Rupay Debit cards | 2012 | 4.21 crore |
| E corners | 2014 | 1200 nos |

| | | |
|---|---|---|
| Customer technology learning centres | | 385 nos |
| SWAYAMS(barcode based passbook printing KIOSKS) | | 6000 nos |
| Green channel counters | 1.7.2010 | Rs 7.40 lakh |
| Pos (point of sale) | | Rs 3.02 lakh |

Source: annual report of SBI

The above table shows the nature and extent of financial innovations adopted by SBI as on 2019-2020.

**Table 2:** Table showing relationship between net profit, total income and customer base.

| YEAR | TYPE OF PARAMETERS | | |
|---|---|---|---|
| | NET PROFIT (in crores) | TOTAL INCOME (in crores) | CUSTOMER BASE |
| 2015-2016 | 11707 | 120873 | 229500 |
| 2016-2017 | 14105 | 135692 | 278509 |
| 2017-2018 | 10891 | 154904 | 357679 |
| 2018-2019 | 13102 | 174973 | 27.32 |
| 2019-2020 | 9951 | 191844 | 30.12 |

Source: annual report of SBI

The above table shows the relationship between net profit, total income and customer base. The trend analysis of the last 5 years shows a positive trend except in the year 2019-2020. On interaction with the bank officials, it is opined that though a lot financial innovation has taken place during the year but due to high operating cost, the net profit of the bank has fallen considerably.

**Table 3:** table showing the relationship between return on assets, deposits and customer base.

| YEAR | RETURN ON ASSETS | DEPOSITS | CUSTOMER BASE | | |
|---|---|---|---|---|---|
| | | | ATM TRANSATIONS | INTERNET BANKING TRANSACTIONS | MOBILE BANKING TRANSACTIONS |
| 2015-2016 | 0.88% | 1043647 | 23811 lakh | NA | NA |
| 2016-2017 | 0.97% | 1202740 | 29324 lakh | NA | NA |
| 2017-2018 | 0.65% | 1394400 | 25200 lakh | 64 crore | 574 lakhs |
| 2018-2019 | 0.68% | 1576793 | 35982 lakh | 90 crore | 771 lakhs |
| 2019-2020 | 0.46% | 1730722 | 1.16 crore | 124 crore | 1441 lakh |

Source: annual report of SBI

The above table shows the relationships between ROA, Deposits and customer base comprising of ATM transactions, Internet Banking Transactions and Mobile Banking transactions. ROA shows a fluctuating trend throughout all the five years. Year 2019- 2020 witnessed the lowest ROA, which has finally led to lower profitability of the bank. Deposits of the bank shows an increasing trend. Lower ROA has not affected financial innovations negatively. As a result ATM transactions, Internet Banking Transactions and Mobile banking transactions has shown a positive trend.

**Table 4:** Promoting Green Products

| YEAR | GREEN CHANNEL COUNTER (daily basis) |
|---|---|
| 2015-2016 | NIL |
| 2016-2017 | 100000 |
| 2017-2018 | 360000 |
| 2018-2019 | 522000 |
| 2019-2020 | 740000 |

Source: annual report of SBI

The above table shows an increasing trend in promoting green product throughout the five years. Due to this increasing trend much of the paper works are reduced and more emphasis is paid on online/ electronic transactions. The bank has tried to create awareness to business people about environmental and social responsibilities.

**6. Contribution Made Towards Health And Education Sector**.

YEAR 2015-2016- The bank has contributed 15.03 crore to the health sector and provided 120000 electric fans to 12,000 schools across India. During the year, the Bank has also provided large number of buses/vans to needy schools. Bank has also given preference to schools for physically/mentally challenged children, and children belonging to economically weaker sections etc. We also assisted them with computers, furniture and other accessories.

YEAR 2016-2017- During the year the Bank has contributed Rs 43161 lakhs to the health sector and donated 1,40,000 fans to 14,000 schools. The methodology was that every branch of the Bank adopted a school in its neighborhood and installed 10 fans and one water purifier. This strategy gave wide reach to the activity and every single region of the country having SBI branch had schools in the vicinity benefitting from donation of fans and a water purifier.

YEAR 2017-2018- During this year the bank has undertaken the following towards the health and education sector.

- Bank donated 210 medical vans/ambulances with an expenditure of 18.38 crores during the year.
- Bank has provided medical equipment at 90 centres worth 8.87 crores.
- Bank installed more than 30,000 water purifiers in schools ensuring clean & safe drinking water for millions of school going children.

YEAR 2018-2019- To support school education especially in the schools for the under privileged children, Bank has provided large number of computers across the country during FY2019 at a spend 7.21 crores. Bank has also provided Infrastructure support by way of furniture, scientific instruments and other educational accessories and donation of large number of school buses/vans for the benefit of physically/visually challenged children and children belonging to economically weaker section of society have been provided by all our Circles.

YEAR 2019-2020- To support school education, especially in schools for underprivileged children, the Bank has provided a large number of computers during FY 2019-20 for a total expense of Rs. 7.21 crore. Infrastructure support by way of furniture, scientific instruments and other educational accessories

Donation of school buses/vans for physically/visually challenged children and children belonging to economically weaker sections of the society. The Bank has donated 79 ambulances and medical vans in rural and semi-urban centres of various States and Union Territories in FY2019-20. Further, the Bank has donated medical equipment to Eye Hospitals, Blood Banks and Cancer Hospitals. In FY2019-20, the Bank spent Rs 56 crores on healthcare.

**7. Conclusion**

The study accounts for financial innovativeness, identifying the relationship between financial innovation and bank sustainability. The analysis of data leads to the conclusion that financial innovation has increased over the period of time. However financial innovation has less impact on bank sustainability in Indian banking sector. The financial performance of the bank is found to be less than the expected level. The key financial indicators of the bank should be given due emphasis to have competitive advantage over the new age private sector banks.

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