



Financial Engineering - Innovations in Banking & Insurance Sectors in India

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ABSTRACT

The history of Indian capital markets spans back 200 years, around the end of the 18th century. It was at this time that India was under the rule of the East India Company. The capital market of India initially developed around Mumbai; with around 200 to 250 securities brokers participating in active trade during the second half of the 19th century. In present the news paper endeavors to track the growth of new financial instruments, new forms of mutual funds, new types of life insurance products, new form of residential mortgages and new risk management instruments introduced in India.

Scope of Financial Engineering in INDIA

Today there are 23 regional securities exchanges in India. The launch of the NSE (National Stock Exchange) and the OTCEI (Over the Counter Exchange of India) in the mid 1990s helped in regulating a smooth and transparent form of securities trading. The crisis can be linked to the bad performance of a large number of top executives in the financial engineering profession and not to the profession of financial engineering itself.

Introduction

What does the Indian Financial market comprise of ? It talks about the primary market, FDIs, alternative investment options, banking and insurance and the pension sectors, asset management segment as well. With all these elements in the India Financial market, it happens to be one of the oldest across the globe and is definitely the fastest growing and best among all the financial markets of the emerging economies. The history of Indian capital markets spans back 200 years, around the end of the eighteenth century. It was at this time that India was under

the rule of the East India Company. The capital market of India initially developed around Mumbai; with around 200 to 250 securities brokers participating in active trade during the second half of the 19th century. In present the news paper endeavors to track the growth of new financial instruments, new forms of mutual funds, new types of life insurance products, new form of residential mortgages and new risk management instruments introduced in India.

2. Scope of Financial Engineering in INDIA

The financial market in India at present is more advanced than many other sectors as it became organized as early as the 19th century with the securities exchanges in Mumbai, Ahmedabad and Kolkata. In the early 1960s, the number of securities exchanges in India became eight – including Mumbai, Ahmedabad and Kolkata. Apart from these three exchanges, there was the Madras, Kanpur, Delhi, Bangalore and Pune exchanges as well. Today there are 23 regional securities exchanges in India.

The crisis can be linked to the bad performance of a large number of top executives in the financial engineering profession and not to the profession of financial engineering itself. The solution to the current global financial crisis will be there only by using the financial innovations intelligently and by incorporating the objective of social welfare in mind.

3. Potential of the Indian Financial Market

Indian Financial Market helps in promoting the savings of the economy – helping to adopt an effective channel to transmit various financial policies. The Indian financial sector is well-developed, competitive, efficient and integrated to face all shocks. In the Indian financial market there are various types of financial products whose prices are determined by

the numerous buyers and sellers in the market. The other determinant factor of the prices of the financial products is the market forces of demand and supply. The various other types of Indian markets help in the functioning of the wide Indian financial sector.

4. Financial Engineering in the BANKING Sector in India

Financial engineering in the banking sector tries to ensure that the banking becomes competitive and performance oriented. The recent innovations in the Indian banking sector have been discussed below:

4.1. Rollover Overdraft

In 2008 the brokers developed a perfectly legal process by which they remain afloat without having to pay. In this circuitous transaction a broker avails the overdraft facility from bank A with a provision that it has to be repaid in 5 days. Normally on day 4 the broker will issue a cheque to bank A from his account with bank B. During current liquidity crisis the broker may have insufficient funds in that account. To overcome this problem of insufficient funds the brokers have innovated a new financial process whereby the broker, bank A and bank B come together to overcome the liquidity crisis. The process is applicable only for high value cheques and if RTGS facility is offered by bank A and bank B.

4.2. Electronic Fund Transfer

RTGS/NEFT facility enables customers to transfer fund from one bank to the other within a very short time. It has the advantage of making a customer closer to his own funds. There exists three mode of electronic payment: Real Time Gross Settlement (RTGS), National Electronic Fund Transfer (NEFT) System and Electronic Clearing Service (ECS). NEFT is available for transaction below 1 lakh while RTGS is available for transaction over 1 Lakh.

4.3. Prefunded Cheque

India is a country of large number of festivals involving exchange of gifts. Financial engineering has been innovatively combined with Indian culture of frequently giving gifts using prefunded cheques. Under this facility one can gift the prefunded cheques to any of his/her relatives or friends who can encash it

4.4. Cheque Truncation System (CTS)

Banks have extended the CTS facility of same date clear-

ing to cheques of even smallest denominations. Currently this facility is only available to high value cheques. It will replace the current Magnetic Ink Character Recognition (MICR) technology which requires physical movements of cheques. It will add huge value to the customers as it saves 1-2 days in getting collections through banking channels. Currently it is being tried on a pilot basis. However, there remain issues in up scaling the volumes on account of lack of standards for physical instruments, account number, positioning of various fields on the physical instrument and the uniform size and background of the instruments.

4.5. Biometric ATMs for National Rural Employment Guarantee Act (NREGA)

Financial engineering and Biometric technology have been combined very innovatively to implement disbursement under the NREGA (2005). To reduce corruption, the rural people under NREGP can get their thumb impression registered at the biometric ATM and can subsequently withdraw money using the thumb impression. It will greatly benefit large number of illiterate and simple Indian rural citizens. Hence, in India, financial and technological innovations are being used to achieve the objective of social welfare. Apart from this, general biometric ATMs provide secure and convenient transactions and have the benefits of security pin as well.

4.6. Mobile Payment Service by Banks In 2008 banks have been permitted by RBI to provide mobile payment services, which enable customers to transfer up to Rs. 25,000 per transaction. Mini statements, checking of account history, alerts on accounts activity, passing of set thresholds, monitoring the term deposit, access to card statement, mutual funds/equity statement, insurance policy/ pension plan management and many other account information services provide the flexibility of anywhere, anytime banking and reduce transaction cost.

4.7. Fixed Deposit (FD) Products New Deposit cure Investment Product

A fixed deposit scheme with envisages investment of interest earned on term deposit in an equity mutual fund by a way of systematic investment plan. This has an advantage of giving safety on the principal invested in this fixed deposit and a Possibility to earn additional return on interest earnings.

5. Financial Engineering in the INSURANCE Sector in India

The pace of financially engineered innovations in the insurance industry continues to pick up even in the light of lagged overall growth. There is a sense of urgency for innovations in the insurance sector. The insurance industry at this stage also has an appetite for change. Rightly created and implemented innovation strategies can help insurance companies emerge stronger during the current global financial crisis. The following points discuss the innovations in this sector:

5.1. Jeevan Aastha

In the light of current global financial crisis Life Insurance Corporation of India (LIC) launched a hybrid product called "Jeevan Aastha" which combines features of Fixed Deposits/Debt, equity and life insurance product. Jeevan Aastha is a closed ended single premium product which offers guaranteed benefits to the customer on maturity and death whichever is earlier. The product offers a simple interest of 10% per annum for a ten year period and a simple interest of 9% per annum for policies with a five year term. The product also offers risk

coverage equal to the basic sum assured plus guaranteed addition in the first year of the policy. If the policy holder dies after the first year then double the maturity sum assured and guaranteed addition will be payable. However, in the scenario of death during the last year of the policy, twice the maturity sum assured along with guaranteed addition and loyalty addition would be payable to the nominee.

5.2. Market Linked Pension Product

It enables policy holder to increase premiums with the rising income. This will enable the policy holder to accumulate larger wealth and beat eroding factors like inflation. Being a market linked pension product it provides performance over the long term and ensures good living standard after retirement. It has an in-built risk in case the market plummets in the long run.

5.3. Insurance Linked Education Loan

The Indian Banks' Association has engineered a model education loan product which provides for a higher quantum of loan. In this product the insurance premium will be a part of the expenses for the loan. The product will come with a provision of top up loan for students for further studies up to Rs. 4, 00,000 of the loan amount. A cap or rate of interest which will not exceed benchmark prime lending rate (BPLR) has been fixed

5.4. Customized Insurance Policies

Insurance Regulatory and Development Authority (IRDA) has permitted customization of non life insurance policies. For example, in motor insurance policy now one can have facilities like a temporary replacement of car in case it breaks down or complete reimbursement of damages, even if vehicle is over five years old. The insured will have to pay extra premium for such customization. This regulatory change will give rise to large number of financially engineered innovative non- life insurance products.

5.5. Insurance Policies with Terrorism Cover

In the light of terror attacks in Mumbai, Delhi and other metropolitan cities Optima insurance launched a free insurance policy which provides a cover of rupees one lakh in the event of death in terrorist attack. There is no premium charged for subscribing to this policy. However registration with the company is a must for availing the compensation in event of death. It is a non commercial program and is using financial innovation for fulfilling responsibilities of corporate India towards society.

6. Conclusion

The current research has made a noble attempt to discuss the application of financial engineering in the banking and insurance in India. Internationalization leads to a spurt of financial innovations in India and the world. The harm that has been caused by securitized instruments backed by sub prime mortgages has been widely discussed in existing literature. The current paper discusses the adaptation and innovation shown by the banking and insurance sector to overcome the international financial liquidity crisis. The existing innovative financially engineered products lack the protection against inflation. In India, there is a great need of innovations especially for senior citizens, poor people, women, rural people as well as a large middle class

After all,
"Nothing is Permanent in this World."

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