

# Innovations in Finance - Perspective, Problems and Possibilities

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## ABSTRACT

*Money is one of the most powerful objects on the earth. Money as a substance has carried a tremendous attraction for the mind. The best of minds, the most controlled minds get blown over by money. Hence the subject that deals with management of money will always be an eye-catching subject. Time and again the subject experts have tried to project advances through terms like financial engineering, financial reengineering, financial innovation etc. This paper is an attempt to understand what kind of innovations have really taken in the world of finance so far. The first objective of the paper is to have a right perspective of the subject matter of innovations in finance. Next, the article highlights the problems associated with innovations in finance. Finally an attempt has been made to project possibilities with financial engineering with particular emphasis on role of technology. An out-of-the-box concept of financial inner engineering has also been briefly discussed.*

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**Keywords – Inner engineering, Innovation, Financial engineering**

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## I. INTRODUCTION

“Never before in history has innovation offered promise of so much to so many in so short a time”, says Bill Gates. According to Peter Drucker, the business has two and only two functions—marketing and innovation. Innovation is of utmost importance for the competitive success of virtually all organizations and it is only innovation that can lead to a sustainable competitive advantage. To understand innovations in finance, we should first understand what is finance? Finance is both a product and a process. For example, when you want a loan, the loan is a product, the price of which is interest. But you will also have to follow a certain process to avail the loan. There is a cost for the process as well. Not just the processing charges but your time that is spent in filling up the forms, signing documents, completing legalities like registration etc. Your time is important. Which is why, Muthoot Finance promotes its gold loan by promising to complete the process in 3 minutes. When one takes a broader view of the subject of finance there are other dimensions that need to be considered. For instance, financial reporting is an important area in finance particularly for the corporate where there is a separation of ownership from the management. Further when you bring in technology as an enabler in the finance function, the scope of innovations in finance gets enlarged. Following areas in

finance can be improved as a result of technological innovations<sup>1</sup>-

1. Data Quality
2. Enterprise performance management
3. Planning and Budgeting
4. Consolidation
5. Statutory Reporting
6. Assurance and controllership
7. Advanced analytics

In fact the broader view of financial innovations covers the entire gamut of finance, that is, the entire financial system itself comprising of:

1. Financial markets
2. Financial institutions
3. Financial instruments and
4. Financial regulations

## II. FINANCIAL INNOVATIONS— UNDERSTANDING THE PERSPECTIVE

Here we plan to deal with the basics of financial innovation by raising and answering some basic questions:

1. Why innovations in finance—There are two situations in which the financial innovations are created and implemented<sup>2</sup>
  - a. Financial innovations are applied when the traditional financial solutions are no longer available and
  - b. When the costs connected with the introduction of the financial developments are lower than the costs connected with the usage of the old, traditional solutions
2. What are the sources of financial innovations<sup>3</sup>:
  - a. Demand side theory which states that innovations are created as a response to the demand or needs of the business entities that want to acquire competitive advantage in their business environment.
  - b. Supply side theory which states that there are innovations which are firstly created by the innovation providers and then implemented in the business entities that are the end-users of innovations.
3. What is the process of financial innovation—The process of financial innovation consists of usually 3 phases<sup>4</sup>—
  - a. Creativity—invention
  - b. Innovation and
  - c. Diffusion
4. How we can classify financial innovations—One such classification is offered by Fabozzi and Modigliani<sup>5</sup>
  - a. Price risk transferring
  - b. Credit risk transferring
  - c. Liquidity generating
  - d. Credit generating
  - e. Equity generating instruments
5. What are the fundamental factors leading to growth of financial engineering— Finnerty<sup>6</sup> has identified the following factors contributing to the growth of financial engineering:
  - a. Tax advantage
  - b. Reduced transaction cost
  - c. Reduced agency cost
  - d. Risk reallocation
  - e. Increased liquidity

- f. Regulatory and legislative factors
- g. Level and volatility in prices and interest rates
- h. Accounting benefits
- i. Technological developments

To sum up this part, one can understand that financial engineering is not just a matter of financial product innovation. It also covers the service and process aspect. Thanks to the role of technology, we have concepts like ECS, RTGS, ATM, Plastic Money, NEFT etc that have changed the way banking was done in the past.

### III. PROBLEMS WITH FINANCIAL INNOVATIONS

Next we proceed to look at some practical problems with financial innovations. Here it is important to understand clearly whether the problems are really problems of financial innovations or of human emotions.

#### Mismanagement of Financial Innovations

Not long ago the world has witnessed shocks in terms of serious financial mismanagement leading to a global crisis including a recession. Many big players like AIG, Lehman Brothers, Freddie Mac, Fannie Mae, Merrill Lynch have collapsed like a pack of cards sending shock waves across the globe. Some analysts have squarely blamed financial reengineering for the crisis. The pressure to succeed and the greed to earn abnormal profits within very short time motivated bankers and finance professionals to simply ignore the risks associated with financially innovative products. To service the bonds backed by sub-prime mortgages, the banks used income streams of their prime mortgages. This resulted in severe financial crisis and eventually collapse of big and renowned banks. Now is this a problem with financial innovations or a problem with management of financial innovations or a problem of human emotions? Apparently even though it looks like a problem of financial innovations, the fact remains that it is not so. Rather it is a problem of greed which is a human emotion. Thus financial innovations are tools that need adept handling. There is always a risk of mismanagement.

#### Unreasonable Expectations from Financial Innovations

We all know ATM (Any Time Money.) One of my friends always says that he doesn't agree with the concept of ATM in terms of "*Astil Tarach Miltill*" meaning that ATM will give you money provided you

have it in your account in the first place. He always wanted the ATM to function as NTM also implying “*Nastil tari Miltill*”, that is, you will get money through the ATM card even when you don’t have it in your bank account! Well, to some extent this is also possible through credit cards. But there is a limit and the money needs to be repaid within a time limit. On similar lines if someone is expecting that financial engineering will help eliminate risk it is certainly expecting something that is impossible. Financial engineering has provided products that can transfer risks but mind you these products do not eliminate the risk altogether.

#### **Financial Innovations Can Add to Complexity**

“Stop calling it “financial innovation” and start calling it “financial complexity”. Needless complexity was re-branded as innovation back in the 80s and that’s been a major source of our problems. Complexity is easier to condemn, because we all understand that needless complexity is fabricated game to see who can outsmart who. But when it’s called “financial innovation” it makes it sound like some great public service has been done.”<sup>7</sup> This phenomenon of complexity associated with financial innovation, particularly with derivative and other such products is not baseless. It is difficult to handle complexity. The understanding of the products gets limited to a few financial wizards and others including key stakeholders can remain blank as to what they are really doing with the innovative products. At times financial innovations have proved to be more of “ballooning effect” rather than genuine products. Further there is a possibility of disguised attempts just to lure customers. For example banks have promoted housing loans with “teaser rates” offering fixed rates. However, borrowers were shocked to note that these teaser rates were fixed only for a couple of years to start with. Fine prints of the agreement, that are never read and understood by common borrowers, contained a clause that the loans would switch-over to flexible rates after couple of years.

Thus, financial innovations are a mixed bag. It is unreasonable to expect that everything good only will happen. Risks and dangers need to be identified and they require careful handling. Just because the marketing guy of a bank is selling you a product under the name of financial innovation, don’t take it to mean that the product ought to be a genuine problem solver alone. It may lead to other problems.

#### **IV. POSSIBILITIES WITH FINANCIAL INNOVATIONS**

Possibilities with Financial Innovation are quite large particularly in a country like India where processes still play a significant role along with the financial products. In fact there is great potential for Business Process Reengineering (BPR) in finance related processes. If technology can be leveraged number of manual and semi automatic processes can be automated. Such things have already started happening but they are happening at a very slow pace. There is still a lot to be done in the area of financial inclusion. A robust model of financial inclusion is really the need of the hour for a country like India. The existing models have not done really well and there is an urgent need for a genuine model of financial inclusion. In terms of products sophisticated instruments are being gradually introduced in India after their success abroad. The F & O segment of the stock market is doing quite well indicating the growing popularity of innovative products in India.

Before we conclude, let us try to think briefly in terms of the possibility of inner engineering in finance.

“Inner Engineering is a technology for well being derived from the ancient science of yoga. Inner Engineering opens up the possibility of living life to your fullest human potential—a potential modern physicists and psychologists say is almost unlimited.”<sup>8</sup>

Why inner engineering in Finance? Every subject matter has a great potential—whether it is human potential or the potential in finance, attempts can be made to unleash the unrealized potential. Inner engineering is basically an approach to transcend the limitations of who we are and raise us to higher levels of consciousness. Inner engineering in the first place has got lot to do with self-belief. CFOs and the Finance Managers can certainly take a stock of their self-belief in terms of their assumptions as to what are they supposed to do, what they can really do, what comes in between what they can do and what they are doing. A typical finance manager who is quite a regular juggler of the finances must take some time off and ask himself this basic question—is the jugglery his skill or is it one of the most hopeless thing that he is doing? Is his creativity limited to using creative accounting techniques or can he contribute in terms of product and process improvement in finance?

#### **V. CONCLUSION**

Innovations in finance have proved to be of great utility. At the same time, recently it has been observed that they have been misused for personal benefits. The financial crisis has exposed the dangers and risks associated with financial engineering. Hence, it is important that due care and cautions needs to be

exercised with financial innovations. At times the innovations can be superficial. Area of finance being very broad scope for financial innovations is also big. But there is a need for some kind of self-introspection particularly to choose the right path and direction for financial innovations.

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