



## FEASIBILITY OF APPLICATION OF BEHAVIOURAL FINANCE IN LENDING DECISION: A REVIEW

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### **Abstract**

**Objective:** *The decision of the Bank managers to lend the funds to its customers is usually based on quantitative and qualitative data about the borrowers.. Analysis of qualitative data varies from bank manager to bank manager based on their risk perception, experience and personal judgment. The impact of the behavioural elements of lending often ignored. Hence, the objective of the present paper is to explore possibility of application of behavioural finance to bank manager's decision making which is similar to investor's decision making with some differences.*

**Methodology:** *The researcher has attempted to use the available literature relevant to behavioural finance and bank managers lending decisions. The research is based on the secondary data. The required data pertaining to behavioural finance, banks manager's lending decisions had been sources from journal publications, published thesis and scholarly articles as well. The collected information is then integrated to study the feasibility of application of behavioural finance in lenders decision so as to minimize lender's biases.*

**Major Findings:** *From the analysis of scholarly articles the authors found that bank managers lending decisions are influenced to a great extent by behavioural factors such as risk perception, gender biases and community biases. These behavioural factors must be taken into account as risk factors while making lending decisions. Behavioural finance can be applied to lender's investment decision with customization.*

### **1. Introduction**

Decision making is a significant process that determines the performance of banks, especially in loan sanctioning division of any bank. Decision making involves listing out various alternatives, evaluating alternatives and selecting the best alternative to suit the situation. A situation based on the decision making activity encompasses not only the specific problem faced by the individual but it also extends to the whole environment. On receipt of several loan applications, the bank manager has to evaluate all the potential borrowers and based on their credit score and his confidence/perception about their prompt repayment within scheduled period, he decides to lend to those who are eligible and rejects the loan applications made by the rest. The entire process is undertaken with due consideration to quantitative factors called hard information related to the credit worthiness of the potential borrower and qualitative factors called soft information namely the cognitive factors which enable an individual to arrive at a particular decision. The application of mind in decision making reveals the importance of behavioral finance in banking activities.

### **Need for the Study**

The crux of a developing economy is an efficient banking system. In recent years, Indian banks are facing increased turbulence due to increasing Non-Performing Assets (NPAs). Despite the restructuring schemes announced by Reserve Bank of India (RBI), the gross NPAs for public and private sector banks amounts to Rs.6 lakh crores as of June 2016 (Bansal, 2016) and has further mounted to Rs.6,14,872 crores setting to rise further (FE Online, 2017). At present, the focus is on the defaulters and the lending banks. The credit appraisal of the loan borrowers includes evaluation of company's financial information as per the strict guidelines of RBI. Over and above the documents and client's background verification, the human factors play a crucial role in making loan lending decisions. Several monetary and non-monetary human factors have led to the creation of defaulted loan and for the further surge. The action focus need to be shifted from the banks as lenders to loan sanctioning bank officials employed in the bank. The loan lending officials assume the role of investors as their lending is an investment to the bank. This role resemblance demands a study of psychological biases undergone by lending officers when making a loan lending decision (PTI, 2016). The present condition of Indian banks indicates the importance of identification of probability of default at the loan origination stage. The decision making approaches by lenders significantly affect loan repayment. Thus, a study of cognitive biases and behavioral aspects of the lending bank officials has become a need of the hour in order to reduce loan default rates in future.

### **2. Objective**

The decision-making of Bank managers to lend funds to the customers is usually based on quantitative and qualitative data about the borrows. The analysis of Quantitative data like balance sheets and other documents are common to all. Analysis of qualitative data varies from bank manager to bank manager depending on their risk perception, experience and their judgment. The impact of these elements of behavioural aspect of lending is, however, often ignored. The objective of this paper is to explore possibility of application of behavioural finance to bank manager's decision making which is similar to investor's decision making with some differences.

### 3. Methodology

The research uses the literature relevant to behavioural finance and bank managers lending decisions. The research is based on the secondary data relating to behavioural finance and of banks manager's lending decisions available on the Internet, other publications as well. The information is then integrated to study the feasibility of application of behavioural finance in lenders decision making so as to minimize lender's biases.

### 4. Literature Review

The review of literature is segregated into two parts Behavioral finance to decision making and loan lending decisions by banks.

#### 4.1. Review of Literature on Behavioural Finance to Decision Making

4.1.1 (Sharma, 2016) emphasized three heuristics that are employed in making judgments under uncertainty viz., representativeness, availability, and anchoring. The researcher had presented a comprehensive study of literature relevant to behavioural decision-making and individual investor's psychology indicating a fair idea of the cognitive and emotional biases to which an individual investor's decision may be susceptible. The various biases are a) heuristics by which individuals develop rules of thumb by quick processing the complex information. b) Regret aversion is the investors emotional reaction at making a bad choice. c) Cognitive Dissonance is the psychological conflict resulting from incongruous beliefs and attitudes held simultaneously. d) Anchoring is one in which investors fail to do enough research because there is simply too much data to collect and analyze and takes decision on selected single fact. e) Mental accounting is where investors place their investments into arbitrarily in separate mental apartments. f) Greed and fear bias is one which investors trade too much in a very short span of time to earn more money. Due to fear investors buy and sell without thinking much.

4.1.2 Gervais (2009) reviewed past studies related to the effects of behavioral biases on capital budgeting. The researcher highlighted that decision makers tend to be overconfident in that they overestimate the precision of their information and their ability to control risk. The managers are especially prone to such a bias, as their overconfidence endogenously leads them to decision-making roles. In capital budgeting situations, overconfident managers tend to overinvest.

4.1.3. AmraHalaba (2016) contended that behavioral finance is based on premise that decision makers behave less than fully rational. Due to their deeply rooted human nature, managers are prone to make decisions based on subjective evaluation of available options, relative to certain reference point and to current state of wealth, and also according to their personal interests which may contradict the goals of banks, industries and against the welfare of the society.

4.1.4. Commercial banks are simultaneously the most important industry for country's economic development and stability and the most submissive industry to the risk. Owing to systematic nature of risk generally in financial markets, any irregularity in one country's banking industry will eventually reflect on other countries and is able to make ground for crisis. Basic types of banking risks are credit risk, interest rate risk, market risk, liquidity risk, operational risk, foreign exchange risk and other risks namely country risk, settlement risk, performance risk (Bessis, 2002).

#### 4.2 Review of Literature on Loan Lending Decisions by Banks

4.2.1 Though the efforts of loan sanctioning and lending officials are not physically observable, they do undergo a sequence of thought process in making lending decisions. There are unseen factors driving the officials either to approve or reject loan applications. The quality of such decisions depends on the collection and interpretation of 'hard' and 'soft' information of the actual and potential borrowers (Belluci, Borisov, & Zazzaro, 2010).

4.2.2. The loan lending behavior is the outcome of human decision making process considering bank characteristics, the decision making biases and the intuitive reasoning approaches adopted by the concerned bank officials (Tronnberg & Hemlin, 2012). The credibility of financial statements is regarded as important information in making a lending decision. In addition to the evaluation of financial data, the gut feelings about the credibility of the loan applicants affect lending decisions of the bank (Lipshitz & Shulimovitz, 2007). The loan officers are influenced by their perceptions, the context of their operation and opinions about the borrowers' capacity and trustworthiness of the acquired information and their own judgement capacity (McNamara & Bromiley, 1997; Buttner & Rosen, 1988; Carter, Shaw, Lam, & Wilson, 2007; Danos, Holt, & Imhoff Jr., 1989)

4.2.3. The loan lending decisions are strongly influenced by the personality, disposition, interpersonal interactions with specific borrowers and intuitional, emotional, behavioral and cultural factors of loan officers (Belluci, Borisov, & Zazzaro,

2010; Buttner & Rosen, 1988; Lipshitz & Shulimovitz, 2007; McNamara & Bromiley, 1997). The relationship with the borrower has been found a significant factor in credit lending in Turkey (Erdogan, 2014)

4.2.4. The lenders have been biased due to caste difference. The cooperative banks lend loans in favour of higher castes discriminating against lower castes and weak evidence exists showing that the commercial banks bias in favor of lower castes (Kumar, 2013). Adding on to existing biases, gender bias influence loan lenders' behavior. Women loan officers incline to apply stricter criteria to evade defaults.(Belluci, Borisov, & Zazzaro, 2010). The perceptions of the loan borrower's creditworthiness significantly differ between male and female lenders (Wilson, Carter, Tagg, Shaw, & Lamz, 2007; Ravina, 2008; (Barasinska, 2009).In recent years, technology advancement has turned its focus on cognitive process and human behavior involved in decision making. Thus artificial neural network has been identified as a tool for evaluating credit applications supporting loan decision (Eletter, Yaseen, & Elrefae, 2010).

4.2.5 .Day & Liebowitz (1998) examined if discrimination exists against minority applicants using a final sample containing 2932 loan applications. The summary statistics revealed that loan applications made by minority had characteristics considerably different from those of the white population. The rejection rate for minorities was almost three times greater than that for whites.The main reasons for such rejections were found to be economic reasons namely, the whites scored higher for wealth, than the minority. On removing possible data errors, the variation in average loan rejection rates was found to be related to variations in prescreening and in matching with the loan applicants' requirements with the loan product. T-statistic indicated that there was no evidence in the data supporting discrimination against minority applicants. The lending decisions made by banks based on economic variables related to the credit worthiness of the potential borrowers still have an element of uncertainty in itself. The reason underlying the qualitative component of the decisions is that these decisions are the outcomes of cognitive process undergone by lending officers of the banks. Hence the decisions are accordingly biased. The research studies on the identification of lender's bias in making lending decisions are found to be significant as it has serious consequences on growth of NPAs.

## 5. Analysis

By analyzing the above literature researcher had identified the following similarities and dissimilarities between in investment decision ( which is relevant to behavioural finance and lending decision.

- Individual investors invest in securities with high expected returns while the Bank Managers know the rate of return to bank in advance as the lending rate is fixed ( if entire loan is repaid as per the repayment schedule)
- Individual investors invest in the securities with high risk as there are no structured guidelines for successful investment, while Bank Managers lend the funds under structured guidelines of the bank.
- Individual investors invest in securities without knowing much about the company details and there is no interaction with the company. But loan lending officers of the bank need to have a personal interaction with the potential borrowers and the officers should able to judge the creditworthiness and their ability to repay promptly on the basis of quantitative and qualitative information provided by the borrowers.
- Individual investors invest their personal money in securities while Bank Managers will lend the bank's money.
- There is a personal gain or loss to the individual investor for his/her lending/ investment decision making, while there is no such gain or loss for loan lending officer's investment decision, but has serious financial impact on the performance of the bank..
- The repayment period of the loan might be equated with the maturity period of investment.
- For personal investment decisions in stock market, there are benchmark indices namely Sensex and Nifty while the benchmark indices will be wholesale price index in general, Index of Industrial Production (IIP) for industries in particular.
- Investor's bias of heuristics is also seen in lending decisions as some time bankers make quick decision by simplifying the information (qualitative data) and develop rules of thumb in order to process complex information ( quantitative data) so as to make lending decisions.
- Cognitive Dissonance refers to the psychological conflict resulting from incongruous beliefs and attitudes held simultaneously (Leon Festinger (1919.89). Significant researches in the past have shown that when confronted with challenging new information, most people seek to preserve their current understanding of the world by rejecting, explaining away, or avoiding the new information or by convincing themselves that no conflict really exists. In other words, it is the mental conflict that investors experience when they realize that they have made a mistake. This bias also seen in lending decision as the bank managers tend to lend to higher caste customer than lower caste customers thinking the higher caste customer will repay better.

- Anchoring bias is one the investors take action based on a single fact or figure that should have little or no bearing on their decision while ignoring more important information. The same is applicable in lending decisions as bank manager tries to process the loan applications of familiar companies than new companies.
- Mental accounting biases highlights that investors place their investments into arbitrarily separate mental compartments, and react separately and in different ways to the investment based on which compartment they are in (Shiller, 1997). This is also seen in lending decision as bank managers have to have lend certain percentage of loans to priority sector, certain percentage of loans to housing sectors, certain percentage of loans to agricultural, infrastructures, exports, education.
- Biases of going back of big names along with many investors is known as herding bias, which also relevant in the lending decision as bank managers want to lend to big companies than small companies.

### Conclusion

From the above analysis the researcher would like to conclude that there are cognitive and other biases influence the investment decision and lending decisions. There is ample scope of application of behavioural finance in the lending decisions. If biases are identified in advance then there is a possibility that training will be given to bank managers in advances so that they may reduce the bias and take right lending decisions.

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