# A Survey Of Financial Forecasting And Customer Analysis In Banking Institution

K.Selva Sheela<sup>1</sup> and K.Hema Sundareswari<sup>2</sup>

<sup>1</sup>HOD of Computer Scince and Engineering VEERAMMAL ENGINEERING COLLEGE, Batalagundu, India k.selvasheela@gmail.com <sup>2</sup>ASSISTANT PROFESSOR, Dept of CSE VEERAMMAL ENGINEERING COLLEGE, Batalagundu, India hemasundareswari@gmail.com

#### **Abstract**

In this new age of advanced financial and economic growth, starting from the micro level to the macro level, there have been multiple aspects based on what demarcates a successful financial undertaking from an unsuccessful one. With this, there has also been stupendous growth in the finance handling organizations and institutions like banks as well. No longer are these institutions merely seen as a means for depositing money for future use, its transfer and other such minor applications. Rather, if it is said that the banks form a significant part and parcel of the entire economy and form the backbone in supporting all major aspects of various organizations and industries, the statement would definitely be not an exaggeration.

**Keyword:** Banking, Financial forecasting, Business Strategy.

For the new age economy, various organizations that support the financial structure of organizations and, are in the form of banks and other financial institutions, have become indispensible for the working of the entire production and service sectors. As needless to say, the growing economic activities heavily rely on the well being and smooth working of banking and similar other financing bodies (Raju et al., 2014). This scenario and the intense dependency of the production and the service sectors on the banking and other similar intermediary institutions, has paved the path for a new era of much more evolved economic statute. With these stellar plans underway, the experts in this field have long felt the need for financial forecasting in this direction.

While, most businesses and enterprises regularly undertake financial forecasting so as to understand the future stature of the industry and hence, the entire business which it affected by it, the financial forecasting associated with banking institutions is a relatively new topic (Liao et al., 2012).

However, the basic ambit within which the concept of financial forecasting is included, involves viewing the exercise as a major part of risk evaluation and determination which is involved in almost each and every kind of financial transactions and financial decisions that follows (Agresti, 2013).

The degree of the late turmoil in financial markets and its enduring overflowing effects to the economy has reestablished enthusiasm for investigations of the credits and the macro economy as a whole.

This paper leads a cautious examination of the prescient force of different financial mediators' asset reports (like those of banks and other similar financial mediators) to future changes in a wide arrangement of financial movement measures across the world (Chen et al., 2012).

The paper also takes up significant discussion about the need and the current stature of customer analysis in the banking sector (Baumann, 2012). As evident from the present observations about various

Before delving deeper into the intense subject of financial forecasting, it is absolutely important to understand the basics of this important procedure that comes within the ambit of several other accounting procedures.

Accounting is also a "process", but not one generated by nature. Rather accounting is man-made, a matter of design choice (Ngai et al., 2011). The outline or the design which is being spoken of, comprises of various basic relations (bookkeeping equations) that lucid the asset report, wage and income statements, and a collection and arrangement of bookkeeping standards – purported acknowledgment and estimation standards – that recommend the numbers that go into these statements and declarations (Barclay, 2015). The procedure has three elements that connection accounting to estimating and valuation:

• Accounting links to cash flows (and thus consumption and valuation) through the basic structural relation that ties the balance sheet and income statement to the cash flow statement: (Padhy et al., 2012)

 $Cash\ flow\ from\ an\ asset = Earnings - Change\ in\ the\ balance\ sheet\ value\ of\ asset.$ 

• Accounting standards (that focus profit and asset report book qualities) work to allot income between periods (Padhy et al., 2012). Occasional profit and cash flows contrast and vary over time endorsed for income and book values, however add up to profit from an asset dependably and almost always equivalents aggregate cash flow (on the grounds that the adjustment in book quality is zero over the life of the benefit). Parts of money related articulations attach to profit and book qualities as indicated by altered, auxiliary relations such that monetary articulation numbers total to income and book values in a deterministic manner (Padhy et al., 2012).

Estimating money streams certainly includes unadulterated money bookkeeping. Collection bookkeeping alters the gauge to focus on a specific estimation of profit and book values. The principal request in determining is to determine the bookkeeping, the issue of how one records for what's to come.

# Need for financial forecasting and customer analysis

With the previous discussion on the basics of accounting that laid the foundation of financial forecasting, the need for financial forecast is obvious. Yet, so as to keep the picture clear and well accounted for, it is important to enumerate the need for financial forecasting and customer analysis by various banking and similar financial institutions (Moro et al., 2015).

In the current scenario, as much as the financial forecast plays a vital role in determining the future economy trends and hence helps the banks to mitigate with any future uncertainties, the financial intermediaries have been known to put a significant amount of effort into analyzing the customer base as well. In the present times, the various other products marketed by the banking institutions for the general populace also play a vital market force and hence, goes a long way in determining the revenue generated by the banks. In such situation, the knowledge of the prospective market and the target populations is very important as it shall determine the overall success of a particular scheme or product marketed by the bank or other similar financial institutions (Kwak et al., 2014).

Some institutions are already on the path of using advanced analytics for analyzing the customer base so as to enhance their effectiveness when it comes to targeted retail processes; other organizations had only limited experience. In the report, it is noticed that money related advertisers need to concentrate more esteem from inward and outside information sources, controlling item improvement, client correspondence, development and development. The utilization of cutting edge examination in keeping money is connected to the span of association despite the fact that the expense of preparing information is no more as a lot of a boundary as even five years prior (Lin et al., 2012). As per the most recent statistical data available in this regard, it has been observed that, about 50% of the financial institutions with an asset size of over \$50 billion have already resorted to a full-fledged piloting customer analytics for better evaluation of the customer based as compared to a 22% of medium asset sized financial institutions that have opted for the same. In the under \$1 billion asset size cadre, only 9% have resorted to adopting the customer analytics processes. As evident from the numbers itself, a staggering 79-80% of high asset value financial institutions are already on their way to a enhanced analytic capability by either having already implemented the same or are planning to adopt high end customer analytics processes (Yap et al., 2011).

The following are the primary reasons why banks need to step up their customer analytics game:

• The saving money industry is relied upon to remain income tested for years to come as an after effect of low premium rates, moderate charge income,

cumbersome regulation and a not exactly hearty economy (Yap et al., 2011). Accordingly, it will be more essential than any other time in recent memory for banks and credit unions to concentrate on every conceivable strategies to lessen expenses and expand income. Some of these strategies, enabled by customer analytics include:

- Moving from a product focus to a customer focus
- Better management (and measurement) of sales leads across channels
- ♦ Inclusion of custom customer incentives/rewards to influence behavior
- With client conveyance and correspondence channels growing, and more clients communicating with their budgetary supplier utilizing online and portable channels, dependably on, continuous deals and administration get to be basic. Examination can react to the movement to advanced channel by:
- Improving branch efficiency and effectiveness
- Integrating sales and service tools within a new digital environment
- ♦ Helping to drive high value, high touch traffic back to branches
- Customer analytic applications are no longer the sole domain of highly skilled specialists. Today's solutions can be accessed and used by marketers and other business users to answer complex inquiries. Improvements include:
- Collapsing of product silos and ability to process increased data sources
- Increased number of specialized vendor solutions and expanded talent
- ♦ Cloud-based solutions

As of the present day, there has been no shortage of analytic applications for banks and credit unions, although most of them come packed with advanced abilities for predictive analysis and also capable of encompassing complex financial forecasting and customer analysis and hence, come at a handsome fee (Yap et al., 2011). While some are broader in nature, some are very particular outsourced arrangements, supporting a purchase versus manufacture choice. Clearly, with an emphasis on containing expenses, the capacity to use outsourced arrangements is uplifting news.

There are six key well-established business drivers for predictive analytics in financial services. Each of these is important as a bank or credit union builds an analytic strategy for the future. And hence, the whole exercise has lead to this six business drivers being the most intense and important applications of customer analysis procedures in any banking or financial institutions. The six drivers are as enumerated and explained as below:

## **Customer Insight**

Of exceptional enthusiasm to most budgetary advertisers is the capacity to pick up a superior knowledge on current clients. While demographics and current item possession are at the establishment of client knowledge, behavioral and attitudinal experiences are picking up in significance as channel choice and item utilize turn out

to be more separated. Slant examination and social networking investigation are two extra samples (Chakravarty, 2013).

# **Business Strategy**

The establishment of conventional saving money business knowledge (BI), client examination is frequently utilized for item and channel improvement and in addition financial guaging, business enhancements, hazard investigation, and budgetary displaying.

## **Client Experience Management**

The way to utilizing client examination for client experience administration (CEM) is about conveying customized, context oriented co operations that will help clients with their every day money related needs. Likewise, if done accurately, client examination in the setting of CEM empowers the ongoing conveyance of item or administration offerings at the correct time. It can likewise take into account exceptionally complex relationship evaluating at no other time accessible (Chakravarty, 2013).

### **Hazard Management**

One of the more basic employments of 'huge information' today is in the zone of danger and extortion administration. Information mining today has extended well past inner buy and equalization bits of knowledge to incorporate exchange examples and even online networking co operations that can give a main marker to potential misfortunes or misrepresentation.

## **Channel Execution**

BI devices have helped banks comprehend channel adequacy for quite a while. All the more as of late, examination abilities have supported the helpfulness of these devices. Capacities incorporate giving complete perspectives of channel execution in light of both client conduct and exchange blend. Arrangements help banks comprehend channel benefit and consumer loyalty and tailor retail working models to enhance retail conveyance (Chakravarty, 2013).

As more banks and credit unions work harder at relocating clients to advanced channels, investigation of engagement and moves in channel utilization get to be essential markers of fulfillment and re-evaluating open doors.

#### **Showcasing**

Another customary utilization of client investigation is the capacity to build the viability and effectiveness of offers and promoting in monetary administrations. The capacity to determine the probability of procurement taking into account accessible

data about individual clients has introduced a seismic move in advertising from item centricity to client centricity (Chakravarty, 2013).

Instead of offering items and administrations taking into account what the budgetary foundation might want to offer (battles), banks and credit unions are presently ready to make interesting, convenient, and significant offers in view of accessible client knowledge. Doing this type of investigation over different channels permits monetary advertisers to essentially enhance the proficiency of showcasing spending and the nearby rate of offers leads

For each of the applications indicated over, the force is in the investigation themselves, as well as in the capacity to do as such continuously. With more difficulties than any other time in recent memory in keeping money, examination is at the focal point of everything.

#### **Conclusions:**

Financial forecasting for valuation involves accounting for the future, for accounting both specifies what is to be forecasted and how the forecaster transitions from the present to the future. The point opens up a number of research questions; most importantly the issue of what is the appropriate accounting for the future.

#### References

- 1. Raju, P. S., Bai, D. V. R., & Chaitanya, G. K. (2014). Data mining: Techniques for Enhancing Customer Relationship Management in Banking and Retail Industries. *International Journal of Innovative Research in Computer and Communication Engineering*, 2(1).
- 2. Liao, S. H., Chu, P. H., & Hsiao, P. Y. (2012). Data mining techniques and applications—A decade review from 2000 to 2011. *Expert Systems with Applications*, 39(12), 11303-11311.
- 3. Agresti, A. (2013). Categorical data analysis. John Wiley & Sons.
- 4. Chen, H., Chiang, R. H., & Storey, V. C. (2012). Business Intelligence and Analytics: From Big Data to Big Impact. *MIS quarterly*, *36*(4), 1165-1188.
- 5. Baumann, C., Elliott, G., & Burton, S. (2012). Modeling customer satisfaction and loyalty: survey data versus data mining. *Journal of Services Marketing*, 26(3), 148-157.
- 6. Ngai, E. W. T., Hu, Y., Wong, Y. H., Chen, Y., & Sun, X. (2011). The application of data mining techniques in financial fraud detection: A classification framework and an academic review of literature. *Decision Support Systems*, 50(3), 559-569.
- 7. Barclay, C. (2015). Data Mining for organizations: Challenges and opportunities for Small Developing States. *Knowledge Discovery Process and Methods to Enhance Organizational Performance*, 189.
- 8. Padhy, N., Mishra, D., & Panigrahi, R. (2012). The survey of data mining applications and feature scope. *arXiv preprint arXiv:1211.5723*.

- 9. Moro, S., Cortez, P., & Rita, P. (2015). Business intelligence in banking: A literature analysis from 2002 to 2013 using text mining and latent Dirichlet allocation. *Expert Systems with Applications*, 42(3), 1314-1324.
- 10. Kwak, W., Cheng, X., Ni, J., Shi, Y., Gong, G., & Yan, N. (2014). Bankruptcy Prediction for Chinese Firms: Comparing Data Mining Tools With Logit Analysis. *Journal of Modern Accounting and Auditing*, 10(10).
- 11. Lin, W. Y., Hu, Y. H., & Tsai, C. F. (2012). Machine learning in financial crisis prediction: a survey. *Systems, Man, and Cybernetics, Part C: Applications and Reviews, IEEE Transactions on*, 42(4), 421-436.
- 12. Yap, B. W., Ong, S. H., & Husain, N. H. M. (2011). Using data mining to improve assessment of credit worthiness via credit scoring models. *Expert Systems with Applications*, 38(10), 13274-13283.
- 13. Chakravarty, S. (2013). Mining financial time series databases using machine intelligence and evolutionary computing techniques.
- 14. Linoff, G. S., & Berry, M. J. (2011). *Data mining techniques: for marketing, sales, and customer relationship management.* John Wiley & Sons.
- **15.** Amin, A., Khan, C., Ali, I., & Anwar, S. (2014). Customer Churn Prediction in Telecommunication Industry: With and without Counter-Example. In *Nature-Inspired Computation and Machine Learning* (pp. 206-218). Springer International Publishing.