

PARAMETERS FOR DESIGNING DECISION SUPPORT SYSTEM USING BUSINESS INTELLIGENCE IN CO-OPERATIVE BANKING SECTOR

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ABSTRACT-It is of paramount importance to build a Business Intelligence and Data warehousing (BI & DW) system for any management. Specially in Co-operative Banking sector where the reach is in many rural as well as urban areas. The need for data driven decisions is felt more and the method of arriving at decisions could improve to a great extent. Identifying of relevant parameters / indicators shall help take better decisions and hence this paper explains about the importance of parameter selection while we work on “DESIGNING METHODOLOGY FOR INITIATION, EVOLUTION and STABILISATION OF DECISION SUPPORT SYSTEMS using BUSINESS INTELLIGENCE in COOPERATIVE BANKING SECTOR”

Keywords-Business Intelligence, Banking, Decision Support Systems

INTRODUCTION

Any organization is like a pyramid and typically split into three layers viz. Operations, Tactical and Strategic. It is often found that Computerization has brought lot of improvement in Banking Operations. CBS Core Banking Solutions is now made mandatory by RBI (Reserve Bank of India). However it is observed through various interactions with top management of Banks that very less methodology is adopted in Strategic layers of a Bank.

Here we find need of data driven decisions in any bank specifically Co-operative banking sector. This shall help the senior management take timely and accurate decisions. Very high level of importance is on what parameters the decisions shall be taken.

Here are some of the parameters which shall influence in the decision making ability of any Bank.

Overall there could be many parameters depending on the subject matter and the context of decision to be taken. Here are few parameters listed below:

- Loan
- Deposit
- Treasury
- Cash Management

OBJECTIVES

To identify parameters using which the operational data can be used to show some patterns and trends which shall help in better decision making using Business Intelligence methodology.

SUGGESTED PARAMETERS

The various parameters related to four important aspects mentioned below are as follows:-

LOAN

This is the most important asset for a bank. Stringent parameters need to be observed. Some aspects are mentioned below

- **Risk Profiling** –
 - Customer –
 - KYC Quantitative and Qualitative check
 - CIBIL Score – This shall help find customers banking habits with respect to loan
 - Customer Income – Abnormal High and lows should be studied and sources should be legitimate
 - Geography
 - Regional imbalance within the geographical area of operations (Country, State, District, City, etc.)
 - Interest rate – External factors like economic slowdown (WPI Wholesale Price Index, CPI Consumer Price Index, CII Cost Inflation Index, etc.)
 - Industry - specific characteristics

- **Products**
 - o Funded
 - Term loan - DSCR (Debt service coverage ratio) and Debt Equity Ratio
 - Working Capital Finance – Current ratio and/or Quick ratio
 - o Non funded
 - Credibility – Net worth assessment
- **Exposure amount**
 - Micro Finance to Corporate Finance - Individual lending limits and group lending limits
- **Security**
 - Primary and Collateral – LTV (Loan to Value), Tangible or intangible

DEPOSIT

- Type of deposits
 - Period - Time deposits v/s Savings/Current
- Liquidity
 - Maturity Pattern
 - Buckets / Ageing
 - High Mortality rate
 - Bulk deposits
- Interest Rate – NIM (Net interest Margin) / Net Interest Income / Spread
 - High cost
 - Low Cost

TREASURY

- Statutory compliance
 - CRR: Cash reserve ratio and SLR : Statutory Liquidity ratio
- Type of securities - Risk, reward (ROI) and Liquidity are the parameters while deciding investment
 - Commercial Papers , Mutual funds, Government bonds, Call Money, Inter corporate deposits (ICDs)

CASH MANAGEMENT

- Compliance
 - RBI mandate and ability to serve customer
- Maximize returns and minimize risk on Cash Holdings
 - Ascertaining cash retention limits
- Customer service
 - CSI (Customer Satisfaction Index)
- **ALM (Asset Liability Management)**
 - **Periodic net cash flow should be positive**
- **Efficiency of Currency Chest**
 - **Central safe deposit ward**

RESEARCH METHODOLOGY

This paper follows Qualitative Case Study method and exploratory method. Insights obtained from the interviews and experiences are also used in this research paper. Various techno – functional discussions were conducted and parameters were identified. Study of several documents along with reports from various banks helped create a repository of information required in the context of decision making in a bank.

Hence a combination of exploratory and case study method was used for this paper.

SCOPE

This paper focuses on the identification of the parameters needed in decision making. It also studies the overall decision making process in Co-operative Banking Sector in Maharashtra state in India. The research paper focuses on the identifying the Gap in overall decision making process.

DISCUSSIONS

Several discussions happened over the course of research. It was found that many decision making bodies struggle to take timely decisions as unavailability of data at the right time is a challenge. Further the parameters on which the data is to be presented in not available there the decisions might be taken based on instincts or overall experience versus data availability in a specific case. In Co-operative banks the need to take such accurate and timely decisions based on data is more as the competition faced from the nationalized bank and other finance corporate sector is high.

LIST OF REPORTS AND FORMATS

Table 1: Sample list of reports which are based on parameters

Sr. No.	Area	Report Name
1	Deposits	List Of Dormant To Operative
2	Deposits	List Of Lien Deposits Nearing Maturity With-In Next XX Days
3	Deposits	Summary Of Term Deposit Type Wise
4	Deposits	Report Of Heavy Cr In Ac Within 1 Month Of Opening From
5	Deposits	Report Of Lien-Deposits-Matured
6	Deposits	RD/TD Product Wise
7	Deposits	Deposits & Advances Report
8	Deposits	Cost Of Deposits
9	Deposits	Cash Withdrawal From ATM
10	Deposits	Deposits Where Additional Roi Is Provided
11	Deposits	Saving And Current Accounts Opened Or Acct-Open-Checking /New Deposit Accounts Opened Sb/Current/Deposits All Categories
12	Deposits	Premature Closed Deposits
13	Deposits	Report On Term-Deposit Mature
14	Deposits	Inoperative Ac Closed
15	Deposits	Acct-Closed
16	Deposits	CASA Acct-Open-Close
17	Deposits	Transaction Above 5 Lacs - Cash(Weekly)
18	Deposits	Transaction Above 5 Lacs - Clg(Weekly)
19	Deposits	Transaction Above 5 Lacs - Trf(Weekly)
20	Deposits	Transaction In Dormant Account
21	Deposits	Report On Avg Balance And Cost/Yeild
22	Deposits	Money Laundering Report For Small A/C Category
23	Deposits	Report For Dormant Balances
24	Deposits	Individual - KYC Customer Details
25	Deposits	CTR Report Of AML
26	Loans	Report Of Advance Payment In Loan Accounts
27	Loans	Zero Or Credit Balance Loan Accts But Acct Not Closed
28	Loans	Closed Loan Acct With Principal In Credit-IntOs
29	Loans	Report For CcodLnfdOdfd Sanction Limit
30	Loans	Limit Expiry Report
31	Loans	Loans A/C Productwise
32	Loans	Cost Of Advances
33	Loans	Ccod-Loan-Disbursed Accts
34	Loans	Ccod Limit Sanction Report Or Ccod Account Open
35	Loans	Ccod Limit Expiry
36	Loans	Ccod Limit Listing
37	Loans	CcodBorrower_Basicdet
38	Loans	Ccod Loan Purpose Code 10
39	Loans	Ccod Sanction Limit Above 25Lacs
40	Loans	Drawing Power History
41	Loans	Insurance-Expiry
42	Loans	Bg-Issue
43	Loans	Bg-Outstanding
44	Loans	Loan Sanction Report

45	Loans	Loan Account Open
46	Loans	Loan Expiry Report
47	Loans	Loan Overdue Report
48	Loans	Bill Discounting
49	Loans	Loan Overdue Report
50	Loans	Insurance Expired Accounts For The Month
51	Loans	Zero Or Credit Balance Loan Accts But Acct Not Closed
52	Loans	Report On Non-Performing Loan Accounts
53	Loans	Advances To Priority Sector
54	Loans	Advances To Weaker Sector
55	Loans	Loans & Advances To Bank'S Director & Relative
56	Loans	Statement On Asset Quality
57	Loans	Statement Of Willful Defaulters
58	Loans	Invocation Of Bank Guarantee
59	Loans	Report Of Limit Expiry Within Next 15 Days
60	Loans	Statement Of Average Yield On Advances

Here are some formats below in which the reports based on certain parameters may be presented

Table 2: Comparison of Deposits between two dates with both amount and percentage

		CBLDATE			
		8/14/2013	8/18/2013		
Branch Name	Product Name	Balance	Balance	Balance Difference	Balance Growth
Total		XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XX%

Table 3: Maturity report

Interest Rate	Day 1	Day2-7	Day8-14	Day15-28	Day29-90	Day91-180	Day181-365	Year1-3	Year3-5	Year>5

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