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Financial Risk Control

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Abstract: *Financial markets are trading places for financial commodities and securities. A financial market is a market, or an arrangement or an institution that facilitates the exchange of financial instruments and securities. These instruments include shares, stocks, bonds, debentures, commercial papers, bills, chequesetc. The price of these instruments is determined by the laws of demand and supply in the market.There are broadly two types of financial markets in an economy – capital market and money market. Now capital market deals in financial instruments and commodities that are long-term securities. They have a maturity of at least more than one year. Capital markets perform the same functions as the money market. It provides a link between the savings/investors and the wealth creators. The funds will be used for productive purposes and create wealth in the economy in the long term.One of the important functions of the capital markets is to provide ease of transactions for both the investors and the companies. Both parties should be able to find each other with ease and the legal aspect of things should go smoothly.*

The role of capital markets is vital for inclusive growth in terms of wealth distribution and making capital safer for investors.Capital market enhances efficient financial intermediation. It increases mobilization of savings and therefore improves efficiency and volume of investments, economic growth and development.The capital market acts as an important link between savers and investors. The savers are lenders of funds while investors are borrowers of funds.In terms of business accounting, risk management is the process of assessing the risks involved with a company or firm's business practices. The overall goal of this process is to minimize or eliminate these risks. Risk can include any basic damages that happen to organization resources. Financial risk control is all about how can one reduce the risk associated with the financial market. Risk management practice in financial services focuses on identifying, measuring and analyzing risk to minimize negative impact.

The major focus of this research paper is all about how can the financial risk associated with capital market be minimized where we have more of manual involvement in reconciliation of data from front end and back end.

Reconciliation is the process of comparing transactions you have recorded using internal record-keeping for financial accounts against monthly statements from external sources, such as a bank, credit card company, or other financial institution, to ensure that your account records agree with each other.

I. Introduction

One of the tier of the capital market is what we call the stock market or the stock exchange. The stock exchange is a virtual market where buyers and sellers trade in existing securities. It is a market hosted by an institute or any such government body where shares, stocks, debentures, bonds, futures, options etc are traded.

This involves the concept of intraday trading. Intraday trading is nothing but the trades are placed throughout the day by various counterparties, brokers,etc.In the intraday trading, trades can only be placed during a specific time, commonly known, as cut off time.

The trade information comes in different ways like flat files, efiles, over the counter, etc. There are source systems specific to products.For example,for products like Equity derivatives, BONDS, etc source system A is involved is deriving all the price related information.Thus for each kind of product, the pricing information, event occurrence, etc comes from specific source system.This pricing information needs to be stored which will be later used in the financial accounting process.The data which comes from front end need to match with the data stored in the database.The data needs to be accurate as this information is essential for generating the profit/loss entries in the balance sheet of the customer.If the values fail to reconcile,the entire balance sheet ledger is messed up leading to huge loss to the organization.

II. Challenges

The data sent from the front end should reconcile with the backend processing to generate the trading general ledger.

This value reflects on the profit/loss accounts of the ledger.In financialaccounting, if the amount does not reconcile, business has to do manual corrections at every month end .This involves huge amount of human

intervention to correcterroneous data.This is a very big risk in financial accounting to involve manual corrections at month end.

A small error can lead to a huge loss to the organization.Also the data maintained in the ledger is used by different downstream system for their different financial accounting process.So the accounting in the trading general ledger should be done in a correct fashion.

III. Literature Review

The architecture needs to be implemented in such a way that front end trade data should reconcile with backend data.A single trade hub needs to be implemented to contain all the in depth details of the trade.The source data comes from the various sources.These are the cash flows which need to be bifurcated and maintained in the database.Postings are the actual values of on which buy/sell has taken place on the trade.It depicts the amount of trades bought/sold by a customer on which trading book at what rate.Based on the postings,balances needs to be generated. Balances are the result of previous balances and today's postings on the trade. Thus the ledger needs to be appropriately maintained so that the profit and loss figure will be precise at back end and will match with the trading information received from the front end.

IV. Implementationlogic

To create this module, technologies like java, oracle pl/sql, data stage, webservices needs to be taken into consideration.A single trade hub can be created to store trade level information liketrade date,settlement date,customer name,portfolio name,etc.The cash flow information can be maintained separately stating the source level information of the trade.Once we have the trade level and cash flow information,postings can be generated.

Postings can involve various events like :

- Mark to market value(MTM):This postings needs to be generated till the settlement date. It means that till the trade is settled, the valuation on the trade may vary.
- Settlement postings:These needs to be created on the day the trade is matured.
- Cost of carry(COC):This is the cost required to carry the particular instrument/product.
- Accrual:The accrued value/interest on any trade.

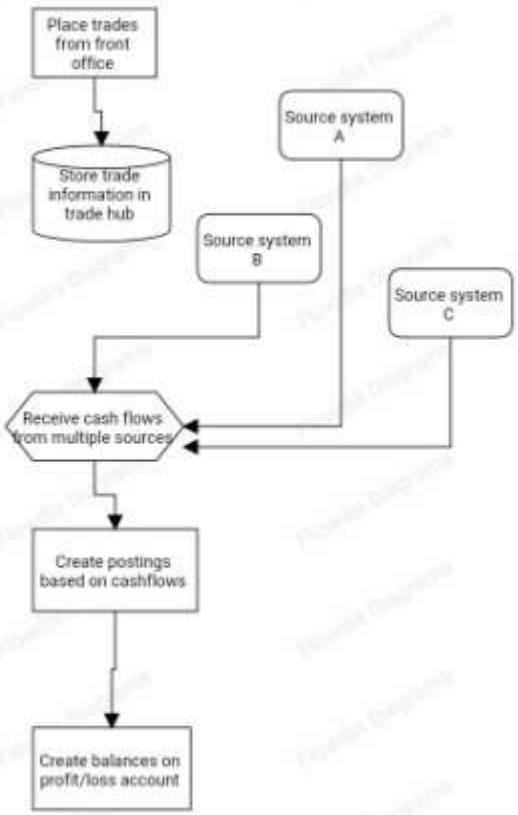
Postings can be realized or unrealized based on the type of cashflows received from sources. Realized postings will be generated on the settlement date of the trade whereas unrealized postings will be generated from trade date to settlement date.

Once the postings are generated,balances needs to be generated for the current day.Balances will maintain the profit/loss information based on the holdings of the customer.Separate accounts will be mentioned in the balance sheet depending the on the type of the events on the trade.Example:MTM account,COC account,Premium account.

The profit and loss account is accountable for the balances on customer account in the ledger.The entire logic needs to be developed in such a way that the system is fully automated with no manual intervention.

V. Proposed module:

Figure 1:Automated Reconciliation Process



The trades are placed from the front end which can be stored in the system using java,webservices,etc.This information needs to be stored in the trade hub at the backend.Trade hub is the place wherein all the in-depth details of the trades needs to be maintained.This trade hub should be accessible by all the downstream systems.Various source systems can send the cash flows for the trades being placed.

Cash flows are nothing but some events which will occur on the trade till maturity date of the trade.This information needs to be maintained in the cashflow table in the database.Post receival of cash flows, postings and balances can be created on the trades being placed.Separate post and balances tables needs to be maintained in the database.The structure of these tables should be built up in a way that all the historic data can be maintained.

All this can be done by creating various types of triggers,functions,procedures,etc. using oracle pl/sql technology.Data stage can serve as a middleware for bridging the data from front end and backend.All the optimal techniques need to be used for developing this logic so that there is no lag in the performance.This entire process needs to be automated by creating scheduler jobs running at pre-defined intervals.This scheduler jobs which be responsible for generating accurate postings and balances in the general ledger.Using these jobs,we can easily match up the front end and backend values.

By automating the entire process,manual intervention will not be required at any point in time.

This will definitely reduce huge manual power involved from business correcting the inaccurate profit/loss figures in the trading general ledger.Once the correct postings and balances are generated, this data can be consumed by any other downstream systems for their different financial use.

VI. Conclusion

By this implementation, the financial risk will definitely be reduced as the entire reconciliation process will be automated.The balance sheet ledger will reconcile correctly with the trading information from front end and backend leading to reduction in manual intervention and accurate information on profit/loss information.

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