

## **BI Solution for Financial Services and Broking Businesses**

### **Introduction to Business Intelligence (BI)**

Business intelligence software and solution can totally transform organizations. It can eliminate much of the guesswork within organizations, enhance communication and joint planning across functions and lines of business, and enable organizations to respond much more quickly to changes in financial conditions, customer preferences and supply chain operations.

Industry know-how and experience are increasingly critical variables to successful business intelligence solutions development and implementation cycles. These challenges and opportunities vary by industry, and the ability to meet industry or business-specific challenges can be the deciding factor for organizations looking to implement business intelligence solutions.

Many industries are using BI applications to reach beyond the enterprise and share insights off the platform with their customers. For a BI solution provider, industry knowledge is essential to establish credibility, and vendors and consultants must be able to walk between challenges in the client's business environment and technical requirements and capabilities.

### **BI Perspective of Trends in Financial Services and Broking businesses**

The recent deregulation hastened the revolutionary changes, in financial services and broking businesses that began to take hold around mid nineties and defined four macro trends that directly impact this industry:

- Globalization and consolidation
- Complexity in go-to-market strategy
- Explosion in data availability
- More sophisticated customer under-standing

With the globalization and consolidation of markets, customer needs and risk, financial services and broking organisations serving the requirements of their customers are dealing with a far broader set of needs – and a far more complex environment. Today, insurance, investment banking, broking and private debt placement can be offered fairly well by a single entity.

Managing an increasingly complex product/service portfolio is one challenge financial services and broking businesses now face on regular basis and with a greater number of customers. As a result, there has been a commensurate explosion in the amount of data that financial services and broking businesses have to manage. So also these organisations are seeking to understand a much broader range of customer activity and respond accordingly.

In order to face this growing set of challenges, financial services and broking businesses require an effective BI solution that allows for shared, defined access to information. Account teams, risk and country managers and relationship managers – those who are interacting with customers in some way – work with wide range of products and services offered in increasingly widening geographical frontiers. The ability to communicate in a universal language with well-understood variables is extremely valuable to these constituencies and to the rest of the organization.

Financial services and broking businesses demand robust security features that ensure user-specific access to information. These companies are working with gigabytes of data that are coming from multiple transaction systems. Ideally, a BI solution should integrate data sources and provide the ability to deploy to large number of users and allow for centralized maintenance

and administration. These requirements stress the importance of an integrated BI platform that addresses these critical needs and would scale to the growing user and data requirements.

### **Broad Functionality of BI**

The BI solution is broadly divided into Dashboards, Interactive Analytical applications, Flexible Reporting applications and Utilities component.

#### **Dashboards**

The Dashboards focus on *Key Performance Indicators* (KPIs) which are significant predefined measures that provide individuals with the information they need to assess previous actions. They target performance and provide the ability to assess past performance. KPIs allow individuals to focus on those areas that require attention, thereby, managing their time more efficiently.

Defining and creating KPIs can be very challenging because the individuals tasked with creating them must understand the goals of the organization, the business questions that must be addressed and where to obtain the data.

#### **Interactive Analytical applications**

Analytical applications are business intelligence solutions that facilitate the access and maintenance of KPIs and other important metrics of an organization. The users can dynamically drill down to details in areas where the KPIs are violated or exceptions are noticed. They can thus instantly focus on causes of deviations and take corrective measures.

Designing Interactive Analytical applications requires defining information perspectives which allow the users to get an overall view as well as specific insight into consistently managed data from diverse sources.

#### **Flexible Reporting applications**

The Flexible Reporting applications provide users with a wide variety of flexible reporting options with just a click of a button. Flexible Reporting applications eliminate large amount of random manual effort in compiling reports by downloading data from Transaction Processing and other systems. Further more, the reliability on Flexible Reporting applications, which are consistently compiled from original data sources directly, without any manual interference, is very high.

#### **Utilities Component**

This aspect of BI solution is related to services, which are available to the users of all the above BI functionality. This is the communication arm of a BI solution. An intelligent BI user should instantly be able to act on information and communicate within and outside the organisation in order to optimize the use and value of information. The Utilities component include exporting data into various formats and broadcasting data to appropriate set of users for whom the information is critical.

### **Our BI Solution**

Each of the above functionality of a BI solution has been included in the BI Modules designed for Financial Services and broking businesses.

The BI solution includes the following BI Modules:

- Performance Monitoring and Analysis
- Risk Monitoring
- Customer Relationship Monitoring

- Dealers Performance Monitoring
- Profitability Analysis
- Financial Statements and Schedules
- Funds Availability and Cash flow
- Accounts and Operations
- Internet Services – ‘B2C’ and ‘B2E’

### **Performance Monitoring and Analysis**

This module is critical in analyzing volume and revenue earned from various products/services rendered by a Financial Services and broking organisation. Performance is monitored for organisation as a whole, for Business Segments, Exchanges and Customer Categories for monitoring regular business or for assessing cross-selling opportunities of products/services. KPIs are defined, business rules are built in and performance is monitored vis-à-vis such KPIs, business rules, targets and past performance. The exception, violation and threshold indicators are shown so that the decision makers can focus on such indicators and manage by exceptions. The users are provided with graphical as well as tabular views of information with easy drill downs to details for proper assessment of performance. Trend analysis of volume and revenue across different units of time provide valuable insights on improvement and/or deterioration of performance over the time dimension. Critical break-ups provided at each stage enable users to undertake interactive analysis and gain valuable insights.

### **Risk Monitoring**

Risk in relation to financial services and broking businesses has two dimensions – one, risk in relation to the client on whose behalf the transactions are entered and two, risk with respect to the exchange.

#### **Risk in relation to the client**

The transactions generate the following risks:

- Risk due to positions taken by the client.
- Risk due to non-payment.
- Risk due to non-delivery.

The risk in relation to client will mean loss of revenue on default transactions and loss if any, due to squaring off the clients’ positions.

#### **Risk with respect to the exchange**

The risk in relation to exchange has two consequences. One it results in default proceedings and action which could lead to direct monetary loss apart from loss of reputation. Two it also leads to increase in margins for doing business.

The exchange related risks involve fluctuation in positions of pledged shares and hence erosion the exposure limit and risk due to clients' positions, non-payment and non-delivery. There is therefore a need to monitor his overall exposure in relation to the exchange and assess whether there is a need to offer additional margin in terms of cash, shares or bank guarantees in order to avoid stoppages. If the exposure crosses the set exchange limits there is a risk of loss of income due to blockage of terminals for trade. If the exposure is under-utilised then there is loss of interest on money blocked as excessive margins with the exchange.

In order to control the above risks this BI module monitors:

- Mark to Market positions of each client by scrip for a settlement
- Client-wise exchange related and other margins

- Client-wise Margin deposits, Bank Guarantees, Exposure Utilised
- Client-wise Ledger balance and Clear Balance
- Capital Adequacy based on overall exposure of the company
- Share Delivery discrepancies from depository transactions

**Alerts are generated** based on preset business rules. The alerts are highlighted distinctly so that the **management by exceptions** is possible. The Risk Monitoring module also allows drill down to details to verify the exact trade types with respect to each scrip. Clients who have **overall negative or loss positions** are distinctly identified and the information is displayed for risk monitoring. The **specific scrips that have negative or loss positions of each client** are also distinctly identified and monitored.

The Mark to Market (MTM) positions are compared with exchange related or other margins so that the impact of the loss positions and the inherent actual risk for the organization are assessed.

The MTM, margins and client-wise exposure limits are displayed to assess the **exposure limit violations** if any. Furthermore the Ledger balance, Unclear balance and Clear balance of the client are also displayed to assess the **payment risk**. The Clear balance is calculated by eliminating the credits of the settlement for which the payout has yet to take place. This information is also available and displayed dealerwise for specific client monitoring. The **exposure of the network partners** of the company is also distinctly tracked.

In this manner a **comprehensive risk profile of the client is generated and monitored on a day to day basis**. Tickers are generated to display the urgency of management attention and the scale of violation or risk. So also all exceptions and violations are displayed in red for management and operational focus.

### **Dealers Performance Monitoring**

This module provides a comprehensive measurement of Dealers' performance as a group and also at an individual level. This module compiles a complete 'Dealer Profile' which includes KPIs to monitor Dealers' targets, initiatives, customers, dependencies, risk parameters, costs and benchmarks. Star performers and average performers can be easily identified based on performance parameters which may be set and reset as per market conditions. This module may be deployed across organization with selective access to users at different levels of hierarchy in the organization. Where dealers are attached to Account Managers, this module also provides complete assessment of the Account Managers' performance. This module requires the 'Performance Monitoring and Analysis' module to be in place.

### **C R M (Customer Relationship Monitoring)**

This module enables effective interaction with the customers and also provides a complete one point assessment of customer's relationship with the organisation. This module includes analysis of Active and Inactive customers, New Customer Analysis, Customer involvement by Product/Segment, Adhoc query facility to customer database and a complete customer profile which includes:

- Personal details of the customer
- Extent of relationship and period of relationship with the customer
- Volume and Revenue generated by the customer
- Business Trends
- Risk Profile of the customer
- Holdings of the customer in our DP

- Customer Earnings for user defined period

This module provides comprehensive information on customer so that the customer relationship managers can effectively monitor all aspects of customer relationship, acquire valuable clues on dealing with customer and generate more business by constant interaction and cross selling efforts.

### **Profitability Analysis**

This module allows the users to track profit, compare profit/costs, analyse costs and assess critical trends in cost in relation to organisation, division, location, profit-center, and business segment. The profitability module provides summarized as well as detailed analysis of revenue and costs for the month and year to date. It enables revenue and cost comparisons with budgets so that the overall impact of deviations in profit performance may be analysed. Timely analysis of activity and cost drivers enables instant action with respect to the entity which violates the norms. Drill downs into profit-center details enables pinpointing of responsibility for monitoring profit and costs. Contribution, total overheads, operating profit, PBT and PAT are highlighted on each screen so that the focus of cost control and profit optimisation may be decided. Flexible reporting options enable users to submit information from different cost and profit perspectives.

### **Financial Statements and Schedules**

This module generates the financial statements along with the corresponding schedules as required by the Accounting Standards. The Balance Sheet and Profit and Loss Account along with schedules are generated at a click of a button. The module provides for clear-cut references to schedules on the financial statements and where necessary further drill down to details. Comparison with previous years is presented in tabular and graphical form to enhance subjective analysis and judgment. The module generates ledger details for outstanding debtors and creditors, control account and other alerts to monitor differences and errors and also allows the end-users to group and regroup items to be presented in various schedules.

### **Funds Availability and Cashflow**

The Funds Availability module calculates the 'Excess' or 'Shortfall' of funds available based on bank balances, Payins and Payouts due from Exchanges and Receipts and Payments due from and to customers. The Cashflow module explains the flow of cash between cash and cash equivalents at the beginning and the end of the day. The Cashflow statement divides the cashflows into cashflows from **Operating** activities, **Investing** activities and **Financing** activities. Drill downs to details is provided so that exact nature of cashflows may be ascertained where needed. The Cashflow module also provides for flexible grouping and regrouping inflows and outflows.

### **Accounts and Operations**

Reports which have to be printed and circulated are designed based on user-specific needs. The list of reports in this module would differ from one business to another. The Accounts and Operations module helps users to leverage the direct connections to transaction and other data sources and to already accessed and massaged data. The reports which may be pre-defined or anticipated can be built in this module at the time when a lot of time and effort is spent in understanding the basic data for other high-level applications. Built in flexibility in generating reports provides added advantage. Some of the reports which are a part of this module are:

- FI analysis report
- Sector Analysis report
- Trades report
- Turnover by client segment analysis report
- Refund due report

- Demat Charges report
- Income tax transactions report
- Mark To Market Report
- Clear Balances Report etc.

#### **Internet Services -‘B2C’ and ‘B2E’**

This module generates reports and graphs to be broadcasted to customers or employees in HTML format either as emails or in predefined HTML templates. These reports or graphs may be draw out data from other BI modules such as Performance Monitoring and Analysis or Risk Monitoring. With a click of a button, this module interfaces with MAPI compliant email software and sends these outputs to the respective customer or employee. Using this module the reports from the corporate data sources can be seamlessly distributed either through email or as a browser based module for viewing static data. This module may be integrated with information such as corporate reviews of the markets etc. which are periodically distributed to various customers.

#### **Conclusion: Addressing Industry Needs with our BI solution**

With the array of current challenges affecting the financial services and broking businesses, the customers are demanding BI solutions that address industry specific needs. Our BI solution is able to understand the industries’ visions, business processes, regulatory and competitive environments, and the compelling needs of their information customers.

The technology is important, but the relevance of the technology to an industry’s environment is just as crucial. The combination of functional requirements and technology when collectively defined, implemented correctly and effectively utilized will create a competitive advantage for the organization. BI customers in this industry may prefer our BI solutions that provides next generation-level reporting and targeted industry knowledge and experience to those selling mere technology.

Organizations that assess their information needs, assess the BI functionality available with our solution and then develop an enterprise BI strategy will be best positioned to leverage BI as a transformational asset.