

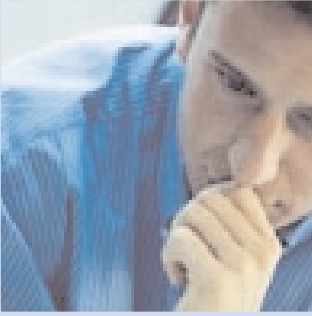
## How to find out more

Contact your Microsoft account team to discuss the specific Business Intelligence requirements of your company or department. Find out about BI workshops that Microsoft or our partners are running, or engage Microsoft services with your IT/technical departments.

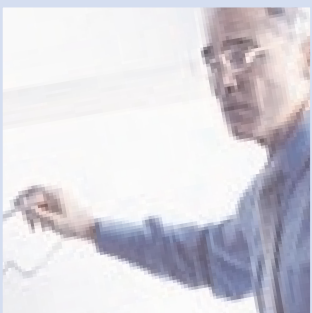
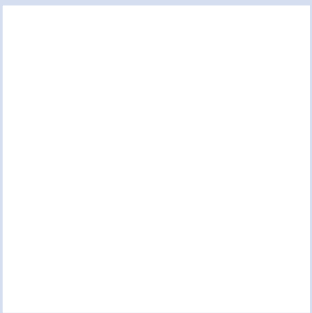
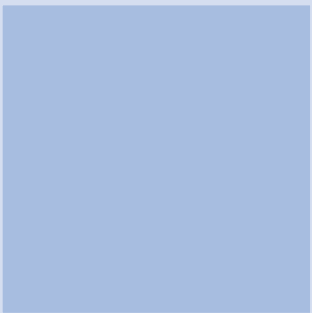
**For more information on-line, see: Microsoft Business Intelligence solutions at [www.microsoft.com/business/bi](http://www.microsoft.com/business/bi)**

**Microsoft**

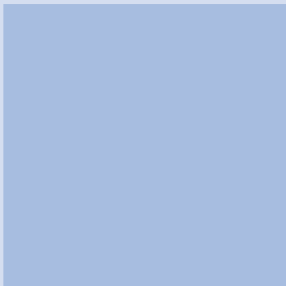




# A Guide to Business Intelligence in Financial Services



**Microsoft**



## How to find out more

Contact your Microsoft account team to discuss the specific Business Intelligence requirements of your company or department. Find out about BI workshops that Microsoft or our partners are running, or engage Microsoft services with your IT/technical departments.

**For more information on-line, see: Microsoft Business Intelligence solutions at [www.microsoft.com/business/bi](http://www.microsoft.com/business/bi)**

## Introduction



Financial institutions are under-using their most valuable asset. Unlocking the behaviour of the customer can pave the way to business success. The more that is understood about the customer, the better their needs can be anticipated and satisfied, increasing loyalty and competitive advantage and minimising the potential for fraud. But, documents detailing past transactions, trends, accounts and policies may be spread across several departments and systems. Without an effective data consolidation and analysis tool this priceless information is rendered all but useless.

Business Intelligence with an enormous potential worth is being squandered owing to natural changes in institutions employment dynamics. Yet decision makers' fears of implementing new data warehousing technologies are holding back improvements. A number of factors have added to the pressure of this stalemate:

- Increased outsourcing of non-core functions
- Streamlining businesses to reduce headcount, meaning it is no longer practical to employ teams of dedicated analysts to sift through data
- Issues with timelines and flexibility of monthly reports for major business units as analyst headcount is reduced
- A demand for better planning and less uniformed risk taking
- Growing customer expectation of excellent, accurate and personalised services.

**Outcome:** Pressure pushes knowledge workers to produce an increasing amount of intelligence and analysis over shorter time periods, using fewer resources. Customer and business demands mean the need for quality information is now unsurpassed. Consequently:

- Vital information is left lying dormant in data warehouses, even though the need for improved decision making is increasing
- The world of financial business depends on daily decision-making, yet the current inferior state of data analysis means many choices could be better informed





## The Value of Business Intelligence

Knowledge workers are in need of relevant information. Yet they lack an integrated platform providing efficient tools for data extraction and the compilation of fast, accurate reports using data from numerous sources. Business Intelligence does more than simply identify sales and profit growth opportunities through cross selling. Customer targeting, risk management, liquidity and credit management, stratification, premium setting, fraud prevention, claims handling and actuarial analysis can also be improved through a fuller understanding of existing stored information.

### Drivers

By increasing the amount of relevant information available to decision makers, increased Business Intelligence provides a number of key benefits:

- All relevant business information is presented within a very short time frame
- Information is automatically assimilated into personalised intelligence presented as a profitability scorecard detailing business units, products and customers
- Large portfolio risks, premium comparisons and loss information can be assessed and managed using familiar analysis tools, allowing intelligent decision making
- With access to immediate, quality information, the loop from decision to action can be closed. Managers can be issued with exception reports to help them remain proactive throughout

**Outcome:** Immediate access to accurate real time data allows decision makers to spot and fix situations as soon as problems occur. Disasters are avoided and companies are able to react to opportunities or adapt products to suit customer demand.



## Increasing Value to your Business

By providing an accurate portrayal of your customers, Business Intelligence provides critical competitive advantage, allowing you to make business decisions quickly and with confidence. The impact of Business Intelligence is realised throughout your organisation, in increased revenue, lower operating costs and improved customer relationships:

### Business agility

Accurate Business Intelligence enables your business to respond faster to new opportunities and changing demands. Combining intelligent prediction mechanisms with rapid execution gives your organisation the ability to move from concept to implementation as quickly as possible – the key to survival in the dynamic new economy.

### Increased profitability

Business Intelligence provides an accurate snapshot of the profitability of specific customer relationships, allowing you to focus your energies on your most lucrative customers. By integrating systems that span the enterprise – e-commerce, CRM, and point-of-sale – you can create a complete profile of your customer and offer insight into their buying patterns, sensitivity points, and preferred methods of contact and communication. Profitable customers are coveted customers understanding their value to the organisation, their motivations and preferences, and finally, how you can increase their spending and interactions with your company, are all critical to retaining them.

### Reduced operating costs

Business Intelligence minimises the time required to collect relevant business information (including financial, inventory, and procurement data). By bringing powerful analysis and reporting tools to the desktop, these solutions empower decision makers to easily conduct their own queries and prepare reports with minimal support from database administrators and IT specialists.

### Increased customer loyalty

With competition for customers only a click away, your business must focus on optimising its relationships with existing customers. Building trust with these customers will positively impact their relationships with your company, and in turn, increase customer loyalty. Understanding who those loyal customers are is the first step, but developing an individual, one-to-one marketing message for the customer demonstrates a level of personalisation that provides competitive advantage. Business Intelligence tools that combine customer insight with rapid marketing deployment build trust, inspire loyalty, and prove to the customer that they are truly valued by the organisation.

**Outcome:** Deeper business understanding is achieved, allowing fast, informed, high quality decision making.





## Business Intelligence in Retail Banking

Banks demand access to information and data across their global operations. Access to Microsoft® and its partners' Business Intelligence technology allows delivery of planning, forecasting and other analytical data. Critical data processing and information sharing is automated while making best use of infrastructure and legacy systems, allowing opportunities to be identified in following key areas:

### Performance analytics

In order to identify the most and least profitable business areas, managers have access to easily understandable scorecards. Reports can be shared across all levels of business, providing workers with common measures, reports and alarms.

- **Customer targeting:** Historically, a direct marketing campaign response rate of 1–2 per cent has been considered as a success, despite the high cost of implementation. Detailed analysis of the transactional data generated by existing customers sharing a common product allows targeting of marketing material towards non-adopters sharing similar characteristics who may be more likely to respond

### Risk analytics

Managers assessing risk for large loan portfolios can access key indicators for factors including delinquency rate and impaired loans. In order to remain proactive, personalised alarms and exception reports may be generated.

- **Risk management:** Traders and risk managers in the back and middle office are provided with support from extensive risk statistics and analytical functionality. Virtual graphic visualisation of scenarios and statistics from areas such as deal capture and risk aids understanding of data as do snapshots and what if capabilities
- **Customer analysis:** Clients within the top profitability sectors can be readily identified, as can the effect of product changes and rates on their behaviour. Clusters can be located and information passed to the marketing department to help generate new business. Customer retention can be targeted

## Operation analytics

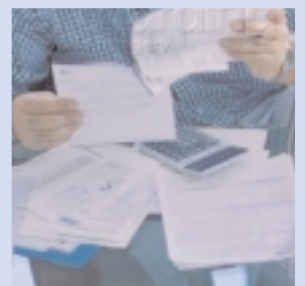
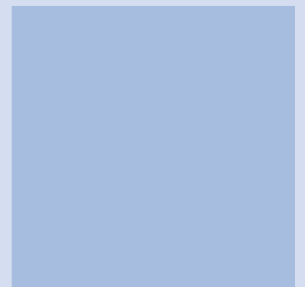
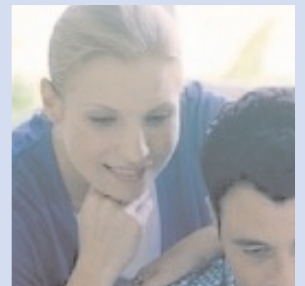
Access to key indicators allows expenses to be kept within corporate benchmarks and budgets.

- **Credit management:** Credit analysts themselves can establish credit provision rules, setting ceilings and eligibility benchmarks for applicants. But thresholds for granting credit can uniquely and automatically change over time as information is added concerning the performance of the credit portfolio, even taking data from outsourced credit card operations
- **Liquidity management:** A bank can survive without profitability, but not without liquidity. Here, data from money market operations and the retail market is placed in a single virtual repository for analysis purposes, allowing the forecast of future trends or trends based on past behaviour. If the system indicates that a large investment account is to reach maturity shortly, this can be planned for without having to borrow funds. The forecast and effect for non-scheduled transactions can also be predicted
- **Asset/liability modelling:** Banks with an understanding of their balance sheet should ride out economic instability. Return on investment can be improved if access to what if scenario generation is available. Modelling allows a glimpse into the future and the subsequent revision of business plans to cope. The system is easy to programme and use, allowing even smaller institutions with few resources to benefit from it

## Audit analytics

Auditors can gain access to analysis models, historical data, benchmarks and a risk index. Identifying opportunities allows auditing costs and workload to be reduced, while provision of branch scorecards allows auditing managers to allocate resources to high-risk branches.

- **Reconciliation:** Financial and non-financial data can be pulled together into a single repository to ensure consistent standards across the entire corporate system





## Business Intelligence in the Insurance Sector

Raising claims processing performance is the key to profitability in the provision of insurance. Until recent times, efforts to improve this concentrated on cost reduction, attempting to lower processing costs of handling or the cost of losses themselves. In an attempt to achieve these savings staff numbers were downsized, and training, support and re-inspection costs slashed. But reserves have been reduced as a result, and losses have again risen as overstretched staff and resources have put pressure on the efficiency of the claims process. Using Business Intelligence technology from Microsoft, these problems can be counteracted in the following ways:

■ **Sales and retention analysis:** New business production can be monitored by class and distribution channels, while support is provided for retention analysis and improvement

■ **Premium setting:** In order to remain in business, the sum of premiums charged must normally be sufficient to cover all claims made, while remaining competitive. Current practices result in calculations based on broad generalisations and limited customer information. The introduction of complex analysis allows significant improvement to decision making

■ **Competitive analysis:** Overall performance comparisons and detailed rates comparisons allow users to generate comparisons with rival insurers

■ **Product profitability:** Specialised customer categories are increasingly being targeted by narrowly defined product sets. As providers move towards a product level focus, differentiation is starting to develop an increasing role in customer retention and market growth. The ability to compile a comprehensive and standardised dimensional model is essential in ensuring this is a success

■ **Customer profitability analysis:** According to statistics compiled by Meridien Research, only 12–15 per cent of the top 100 US insurers have customer profitability analysis in place, versus 75 per cent of the top 300 US banks. Yet those unable to identify their best customers stand to lose out as competitors refine their strategies to target profitable ventures. Gaining the business they really want, the smart insurer will leave unprofitable clients to purchase from the rest, further undermining competitors' position

■ **Experience analytics:** Risk analysis and pricing support allows the end-user to compare premium and loss information over time

■ **Loss adjustment:** Calculating the true liability for a claim is vital to maintaining profits. Replacing manual advisory rates with a rating formula provides the insurer with a figure that does not include expenses, other than loss adjustment expenses, or profit. This is based on past losses and projected expenses and is carried through to provide an ultimate value

■ **Claims analysis:** Identification of fraud and reserve management is made easier by the provision of information across all aspects of the claims process, delivered through a single channel

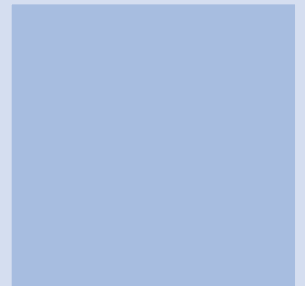
■ **Human relations analysis:** A great deal of responsibility for the overall performance of the company lies in the hands of the claims handler. Rather than depending on a periodic audit or review, the individual's overall ongoing ability is monitored and assessed

■ **Fraud prevention:** It is well known within the industry that around 10 per cent of claims involve an element of fraud. As long as credit history is available, customer tagging allows insurers to determine risk and produce a description of those in each category

■ **Claims handling:** Almost half of the time spent on claims handling is taken up by routine overhead functions with little or no impact on the claim or relations with the customer. An automatic generation of data quantifying lost cost reduction opportunities through optimal claims settlement allows claims handlers to see the effects of changing contract variables at minimal cost

■ **Actuarial analysis:** In order to understand a business, management staff must be able to check performance across lines of business, combined ratios by policy size and claims frequency according to variables such as accident type and policy size. As a result, drilling down through data can identify growth opportunities, and poorly performing segments

■ **Overall risk management:** According to the RONIN Corporation's October 2000 research, 41 per cent of European insurers planned to spend over \$1 million enhancing their marketing databases. Yet in many cases, this is unnecessary. The 79 per cent of European policy providers claiming to possess a data warehouse could make better use of existing material if only they possessed the tools to do so. Access to data and analysis-rich information provision will allow insurance providers to generate a lucrative revision of established risk management assumptions. For example, whilst it can be assumed that risk increases with each new violation, such as the effect of speeding points on the safety of a driver and their likelihood of suffering a crash, this may not always be the case. Anomalies do occur, as minor speeding offenders historically prove a lower risk than non-offenders. Applied to marketing for new business, information identifying this low risk sector can prove valuable to company profits





## Microsoft gives you the Power to turn information into Business insight

The more relevant, useful intelligence arriving at the fingertips of decision makers, the better the quality of their decisions will be. This advantage may now be gained in a fraction of the time by combining consultancy expertise and the latest data warehousing tools to provide true Business Intelligence at a surprisingly low cost.

Microsoft's complete integrated platform uniquely delivers Business Intelligence as a fundamental component of your enterprise infrastructure. In providing a proven computing platform, rather than a single application, Microsoft provides key advantages:

### Reduced time to market

Microsoft enables your organisation to implement new business initiatives as quickly as your strategies change. By providing a comprehensive set of 'building blocks' for business solutions, Microsoft ensures that your systems can adapt quickly to a constantly changing business environment. Should a department or company merge, be acquired or downsize, the system can be altered to cope.

### Reliability and scalability

Microsoft's new generation of .NET™ servers is the cornerstone of the agile enterprise in today's dynamic business environment. Unparalleled reliability means your systems are available when you need them. .NET servers scale both up and out, expanding their ability to support growth and take advantage of market opportunities.

### Ease of use

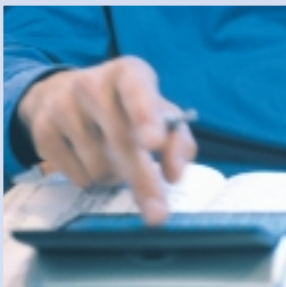
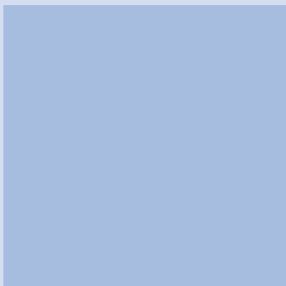
Microsoft's Business Intelligence platform provides open interfaces, allowing data access and sharing in a heterogeneous environment. Quick to install, disruption to staff and systems is minimised. Work and analysis contained in familiar Office documents can be updated regularly, automatically or on demand, and re-analysed weekly or nightly or on demand, providing decision makers with an accurate up to date picture of customer behaviour.

### Speed of delivery

Ease of development, straightforward integration with legacy systems, manageability, and use of familiar tools for analysis and reporting ensure rapid delivery at every level.

### Proven market performance

OLAP (Online Analytical Processing) is one of the hottest areas of data management, and in the recently published 2001 OLAP Survey conducted by Survey.com and published by The OLAP Report, Microsoft® SQL® Server 2000 came out a clear winner. It was the No. 1 OLAP product chosen (80 percent) when evaluated, purchased and installed, and customers achieved a faster time to market than that of any other major competitor. For full details see [www.olapreport.com](http://www.olapreport.com).



## Intelligent Response to Business Needs

Business Intelligence can be applied to numerous sectors within the retail banking and insurance industries, increasing the quality of information behind key decision making processes in a number of ways. Looking at the different analyst roles across an organisation demonstrates how different needs and processes can be met by a Business Intelligence solution:

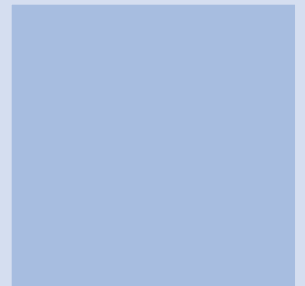
■ **Fraud analysis:** Monitoring and analysis of transaction and account behaviour can help to detect telltale signs of fraud. Once customers' behavioural patterns have been established, significant deviations from the norm can be flagged and investigated, preventing serious losses to the account provider

■ **Risk analysis:** Data consolidation provides a timely, accurate view of the level of risk affecting financing decisions, allowing this to be reduced and managed. The accuracy of risk estimates can be improved while the creation of an accurate picture of risk factors creates a better quality of decision

■ **Marketing and sales:** Improved understanding of customers allows efficient targeting of products and services. New markets and opportunities are revealed through pattern analysis, allowing users to increase sales, revenue and market share by identifying the most profitable customers and products using natural English queries. The RONIN Corporation's October 2000 report states that 50 per cent of European bankers incorporate customer profitability into their customer lifetime value calculations, demonstrating enormous the importance of accurate data

■ **Finance:** Instant access to a complete financial picture allows institutions to form up-to-the-minute financial performance reports and status indicators. Resulting adjustments can be made in real time, and potential areas of high cost and low revenue can be identified

■ **Information Technology:** A flexible system improves data management flows and reduces inefficiencies of redundant data. By using a complete, end-to-end framework all the necessary data analysis tools can be included, yet the system is robust and flexible enough to add in other software and customised applications when necessary





## Microsoft Business Intelligence Platform

The cornerstone of the Microsoft Business Intelligence platform is Microsoft SQL Server 2000, the comprehensive database and analysis offering. SQL Server 2000 gives you the power to gather, transform and manipulate data from a variety of sources, whether the data is formatted as XML or comes from another database. SQL Server will also allow you to take maximum advantage of your hardware resources. Multiple instances of SQL Server can be installed on a single machine, maximising performance while ensuring isolation and reliability on multi-processor systems. The latest release of SQL Server provides a set of features and services for unparalleled data storage and analysis.

Components of SQL Server that support Business Intelligence include:

### Analysis services

The measure of any Business Intelligence solution is in its ability to derive knowledge from data – digging through large volumes of information to identify the patterns, trends, rules, and relationships that are beyond simple human analysis. SQL Server 2000 Analysis Services provides a set of integrated, Web-enabled analysis services that include Online Analytical Processing (OLAP) and sophisticated data-mining features. SQL Server supports both clustering and decision trees – techniques used for segmentation and classification, as well as forecasting.

### Data Transformation Services

SQL Server 2000 Data Transformation Services (DTS) provides the tools to consolidate data from diverse operational systems and databases into the data warehouse or data marts that support analysis and decision-making. Using DTS, your organisation can automate extraction, transformation, and loading among and between disparate sources within your enterprise. Using SQL Server workflow services, DTS can run these tasks at scheduled intervals or in response to specified events, enabling you to create custom data movement solutions that meet the specialised needs of your organisation.

### Data Access Standards (OLE DB and XML)

Open standards ensure the flexibility and longevity of your Business Intelligence system by providing forward and backward compatibility with other data sources, and facilitating integration of third-party applications and components. These standards expand access to Business Intelligence by increasing the flexibility for developers to incorporate analytical data within applications that reside remotely on the Internet, or even those that are hosted by another company. Users can achieve a new level of pervasive data analysis because they have access to data from any client, ranging from a PDA to an Internet-enabled phone, interactive TV device, laptop computer or PC.



## Closed Loop Analysis

Analysis is one thing; action is another. Microsoft Analysis Services extends the power of business analysis with new functionality that allows knowledge workers to take the conclusions they reach and use them to automatically drive business processes. This functionality transforms client applications from sophisticated data-rendering tools to integral parts of the feedback loop in an enterprise-wide operational system. End users can now go beyond traditional analysis and initiate solutions to discovered problems and deficiencies.

## Metadata Services

An enterprise standard for “metadata” – data about data – is critical for unifying distributed, multiple data marts into a global data warehouse. SQL Server 2000 Metadata Services helps businesses build, maintain and manage their data warehouses by providing a shared facility for expressing the inter-relationships among the various parts of the application. Metadata Services includes a set of COM/XML interfaces and a repository engine that can be used to define and populate information models.

## Integration with Microsoft Office

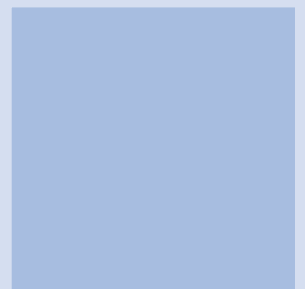
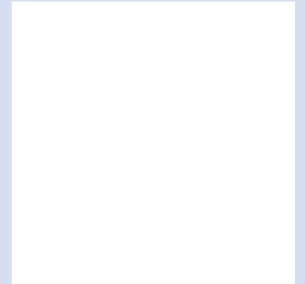
Microsoft Office Tools are familiar fixtures on millions of desktops worldwide. With their built-in support for SQL Server analysis services, they provide a powerful front-end for enterprise data and Business Intelligence. This brings two benefits: it increases the productivity and efficiency of nearly every employee, and it saves the cost of retraining in specific analysis tools or of outsourcing analysis and reporting.

## Web-based access to information

As your business becomes increasingly global, you need Business Intelligence solutions that deliver knowledge over the Internet. Microsoft software is designed for the Internet, so you can harness the Web more quickly to work with customers and partners in innovative ways.

## Support for mobile users

SQL Server 2000 Analysis Services provides offline access to multidimensional data via the Microsoft PivotTable Services component (client components). The Pivot table service speeds query times and allows users to disconnect from the corporate network while working with data in Microsoft Excel. The availability of SQL Server 2000 for Pocket PC, allows mobile users to access enterprise data directly from a handheld or portable device.





## Conclusion

The provision of financial services in the retail banking and insurance markets is a tough job and even minor decisions must be taken using the best information available. Cost and time to implementation are equally important issues in these highly competitive sectors. But choosing a flexible, robust and effective Business Intelligence system can certainly help smooth the way, differentiating a firm from its competitors and handing them a significant advantage in return.

**Outcome:** Using Business Intelligence, organisational data can be made available to all users in a format that is easy to understand:

- Business drivers can be identified and understood, while products and their performance can be accurately assessed
- Market trends and customer needs can be studied
- Both employees and customers benefit from swift access to information
- Fraud and theft can be identified through behavioural anomalies
- Risk factors can be accurately assessed

