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## Information Management Trends in 2005

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June 2005

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# Information Management Trends in 2005

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## Executive summary

Businesses today are faced with enormous amounts of data that have resulted from past investments in enterprise applications, such as enterprise resource planning and customer relationship management. While organizations look for ways to contain the costs and complexity of managing the data, the real goal is to leverage the information to make better decisions, to be more agile, and to gain insight into business performance. IT and business professionals are seeking solutions to ensure that important information can be made readily available so that it remains useful, and can be leveraged to deliver the best economic value to the enterprise.

To more fully understand how organizations are handling critical business data and business analytics, TechRepublic conducted a survey to explore several key trends of information management and related tools.

In this study, we specifically explored:

- Current views of information management solutions.
- Current state of information management solutions.
- Benefits of information management solutions.

Among the most compelling findings:

- *The need to find reliable business intelligence strategies is becoming increasingly important:* Fully 86 percent of respondents indicate that enterprise management for data analysis is critical or highly critical for ensuring continued business success.
- *Currently, most organizations are not taking full advantage of existing business intelligence solutions:* Of respondent organizations that currently deploy business intelligence tools, most deploy them only to address specific problems (32%) or deploy them inconsistently across the enterprise (30%). It is likely that the burgeoning importance of data management for bottom-line profits (42%) will drive deployment of integrated data management tools for proactive, rather than reactive, data management needs.
- *The current focus for business data management solutions is on data access:* On a 5-point scale (1 being most important and 5 being least important), respondents rated as nearly equally important the need to support a high volume of queries (1.6), the need to access both historical and real-time data (1.7), the need for access to multiple databases (1.7), and the need to unlimited data access (1.8). Moreover, 90 percent of participants considered faster access to information and the need to increase storage capability were seen as the top two benefits of business intelligence management solutions.

Clearly, the majority of IT and business professionals recognize the need to proactively manage growing amounts of data, and are turning toward business intelligence management solutions to meet their needs. The current focus is on increasing the capacity of the organization to access critical information in a timely manner to better inform business decisions that impact bottom-line profitability. On balance, the findings presented in this study indicate that business intelligence tools for managing data in today's dynamic and challenging business environment are becoming increasingly important and critical aspects of linking IT technologies with business needs.

## Introduction

Businesses today are faced with enormous amounts of data that have resulted from past investments in enterprise applications, such as enterprise resource planning and customer relationship management. The data are often hardwired into information silos where it is difficult to access and leverage for the purpose of informing critical decisions in dynamic environments. As a consequence, many companies deploy data shadow systems and maintain multiple data warehouses (DW), operational data stores (ODS) and data marts (DM) making the challenge even greater. While organizations look for ways to contain the costs and complexity of managing the data, the real goal is to leverage the information to make better decisions, to be more agile, and to gain insight into business performance. IT and business professionals are seeking solutions to ensure that important information can be made readily available so that it remains useful, and can be leveraged to deliver the best economic value to the enterprise.

To better understand how organizations are handling critical business data and business analytics, TechRepublic conducted an Information Management Survey. Specifically, we asked respondents about:

- Current views of information management solutions.
- Current state of information management solutions.
- Benefits of information management solutions.

## Research methodology

A survey invitation was sent to TechRepublic members in June, 2005. The Web-based survey was designed to explore and identify the key issues surrounding information management and business analytics. The results reported here are based on the 398 completed surveys collected during the study.

## Respondent demographics

Survey respondents were selected from among TechRepublic members who met certain selection criteria, specifically those IT and business management professionals in the United States and Canada who:

- Are affiliated with organizations with 500 or more employees.
- Have job roles as IT and business professionals, including:
  - IT executives.
  - IT directors.
  - IT managers.
  - Network or systems managers.
  - Business executives.
  - Business directors or managers.

The following tables contain a breakdown of respondents by organizational size, primary business location, and primary job role.

**Distribution of organization size**

| Number of employees (all locations combined) | Percentage of respondents |
|--|---------------------------|
| 500 – 999                                    | 18%                       |
| 1000 – 9999                                  | 44%                       |
| 10000 or more                                | 38%                       |

**Geographic location**

| Region        | Percentage of respondents |
|---------------|---------------------------|
| United States | 99%                       |
| Canada        | 1%                        |

### Distribution of job roles

| Job role                              | Percentage of respondents |
|---------------------------------------|---------------------------|
| <b>Technical</b>                      | <b>84%</b>                |
| IT executive                          | 2%                        |
| IT director or manager                | 15%                       |
| Network or systems manager/director   | 3%                        |
| Network or systems technologist       | 9%                        |
| IT consultant                         | 6%                        |
| Developer                             | 19%                       |
| Other technical                       | 30%                       |
| <b>Business</b>                       | <b>16%</b>                |
| Executive or senior management        | 2%                        |
| Department head, director, or manager | 1%                        |
| Other functions                       | 13%                       |

## Key Findings

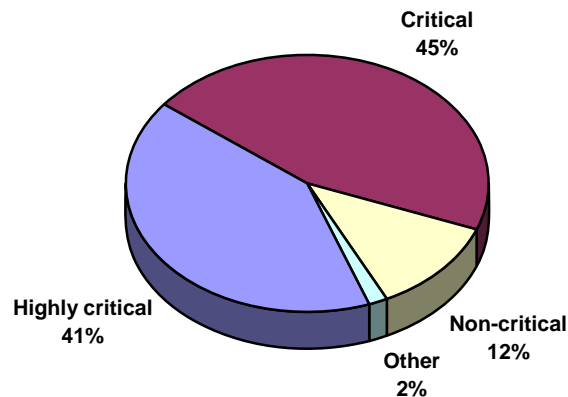
### Current views on emerging information management solutions

Initially, we were interested in the overall importance that IT and business management professionals place on information management and business analytics approaches within their organizations. We began by asking for respondents' overall views on enterprise information management for business analysis.

It is readily apparent that businesses recognize the importance of information management for business analysis. The overwhelming majority of respondents indicated that business analysis is either critical (45%) or highly critical (41%) for their organizations. Another 12 percent indicated that, while not critical, information management for business analysis is viewed as beneficial for their organizations.

These responses are shown below.

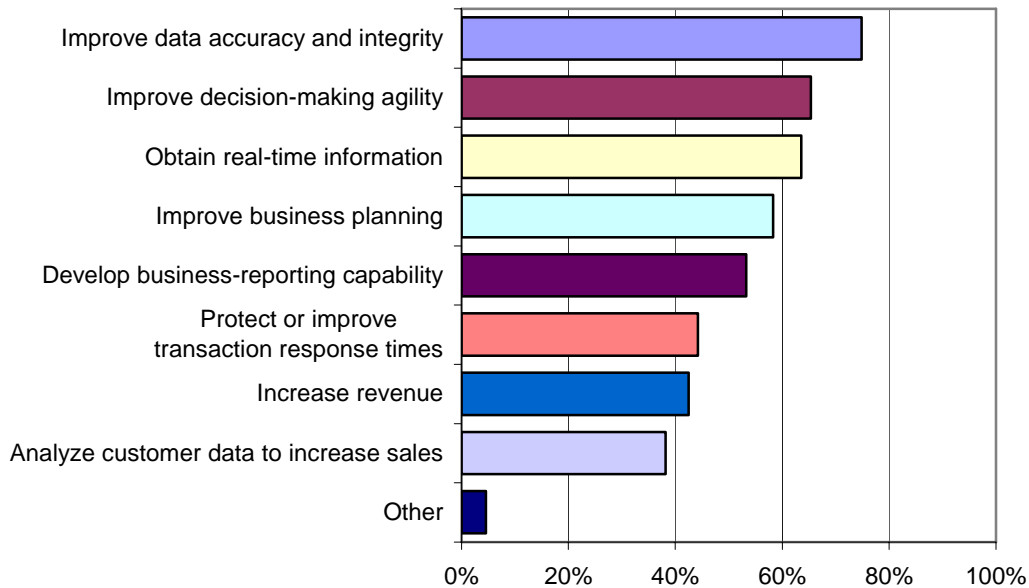
**What is your company's overall view of enterprise information management for business analysis?**



As a follow-up question, we asked respondents what business objectives were most important for their organizations to address with business intelligence solutions. Most respondents (75%) indicated that improving data accuracy and integrity is most important for their organizations. Other important objectives included the need to address decision-making ability (65%), obtain real-time information (64%), improve business planning (nearly 60%), and develop business-reporting capability (over 50%).

Interestingly, only about 42 percent said that increasing revenue can be addressed with business intelligence solutions. This finding simply reinforces the notion that not all IT investments are expected to have a direct impact the bottom line, but rather helps turn the wheels that can lead to profitability. Fewer still (38%) identified being able to analyze customer data to increase sales as an objective that can be met through improved data management capability. These results suggest that more attention should be focused on the less salient aspects of database management that are nonetheless important for enterprise profitability.

**What business objectives are most important for your organization to address with business intelligence solutions?**

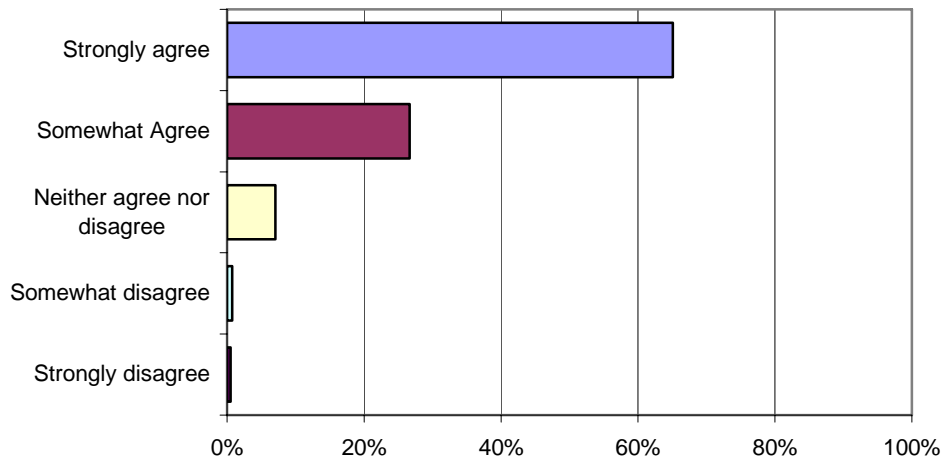


*Respondents could select more than one answer.*



Finally, we asked respondents whether they thought that reducing the time it takes to run queries would significantly improve their business operations. The vast majority of respondents agreed with the statement. As shown below, over 90 percent agreed or strongly agreed that reducing query time would provide marked improvement for their organizations. Processing huge volumes of data efficiently is therefore a key opportunity for improving business operations.

**Please rate the following statement: "Reducing the time it takes to run queries -- from hours to minutes -- can significantly improve our business."**

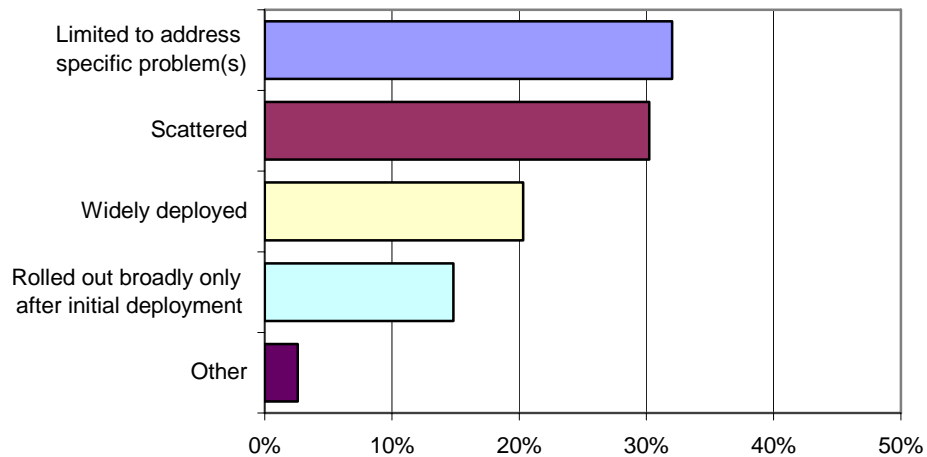


Current state of information management solutions

Next, we explored how well organizations utilize information/data management solutions and from which vendors these products and services are obtained.

First, we asked respondents how their current business intelligence solutions are deployed. As illustrated below, only about 20 percent of respondents deploy business intelligence tools widely throughout the enterprise, followed by 32 percent whose deployment is limited to specific problems, and another 30 percent who report “scattered” deployment. Nearly 15 percent roll out business intelligence tools widely only after initial deployment. These results suggest that few organizations are taking full advantage of data management solutions for their business needs, and hints at widespread current use of data shadow systems.

**How does your company deploy business intelligence tools?**

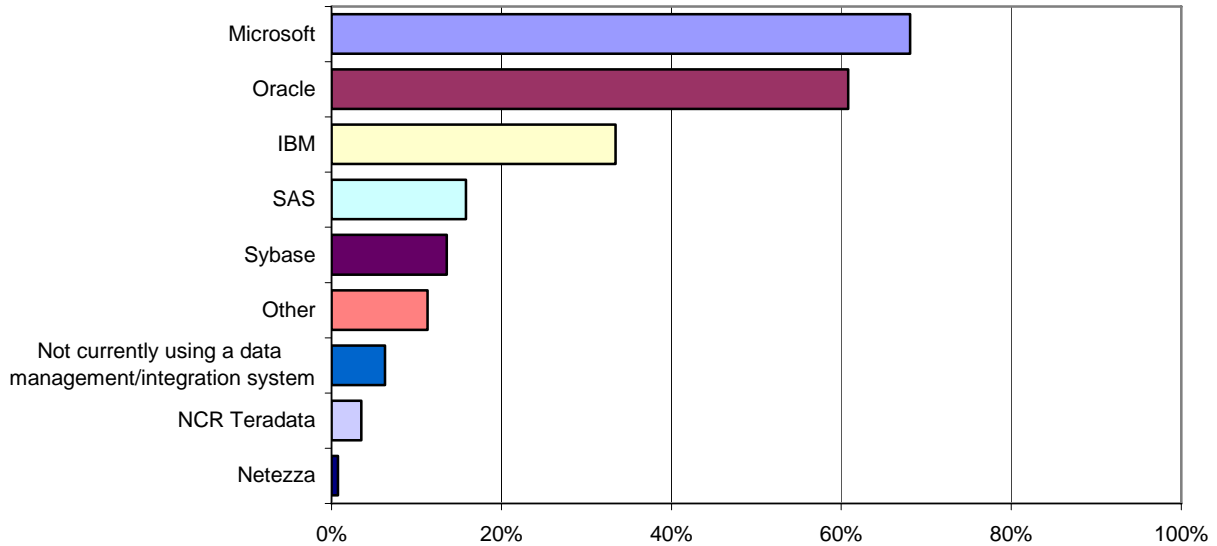


*n=384*

*Asked only of those who are currently using a data management/integration system.*

Currently, 68 percent of respondents are using products from Microsoft for their data management needs, followed by about 61 percent who are using Oracle. In addition, about one-third of respondents use IBM. Other vendors include SAS (about 16%), Sybase (nearly 14%), and to a lesser extent, NCR Teradata (about 4%), and Netezza (less than 1%).

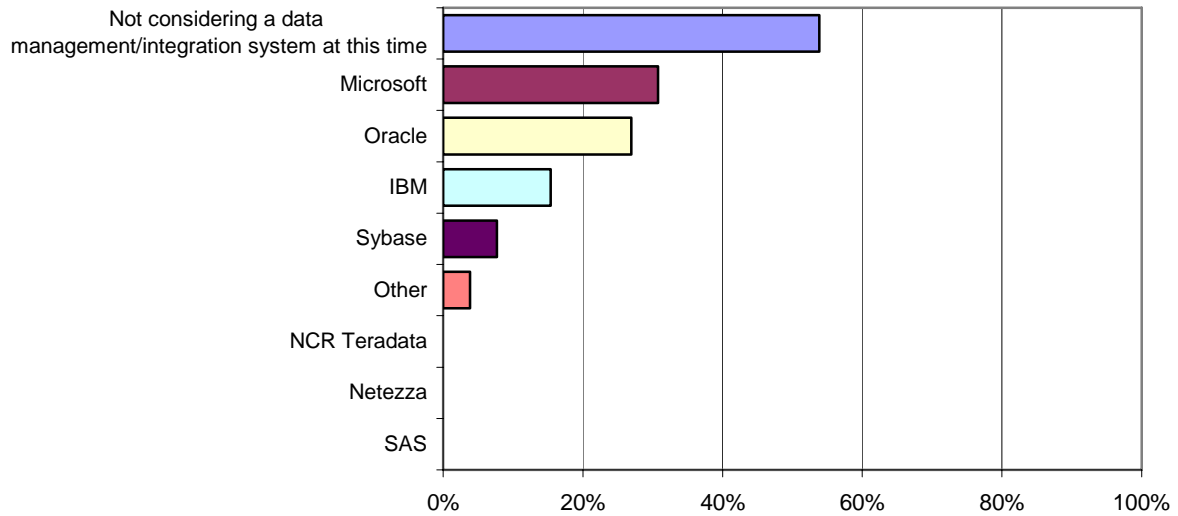
**Which of the following vendors/products are you currently using for a data management/integration system?**



*Respondents could select more than one answer.*

Among those who are not currently using a data management /integration system, the vendors and products under consideration for future investments include Microsoft (just over 30%), Oracle (about 27%), IBM (15%), and Sybase (nearly 8%).

**Which of the following vendors/products is your organization considering for a data management/integration system?**



*N=26; only asked of those who are not currently using a data management/integration system.*

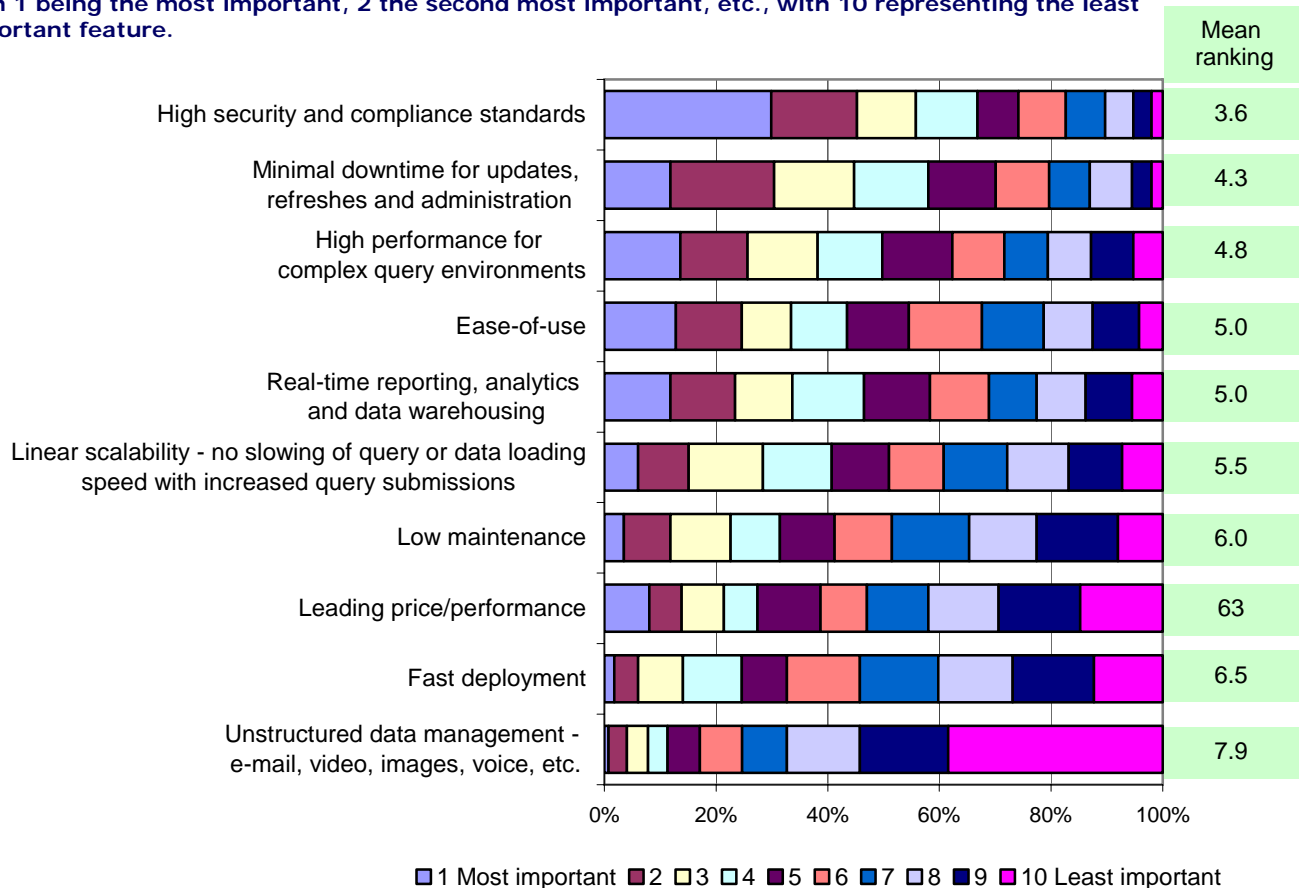
## Benefits of information management solutions

The final section of this study examines the benefits of using information management and related tools for managing mission-critical data and providing access to relevant databases to drive business decisions. Our first question highlights specific issues or problems that might be addressed through adoption of relational database management tools.

We asked respondents to rank features of a relational database management system that they find most important for their organizations. Rankings were made on scale of 1 (most important) to 10 (least important). We found that respondents are most concerned with maintaining high security and compliance standards (mean rank of 3.6), followed by ensuring minimal downtime for updates, refreshes, and administration (mean rank of 4.3), and in ensuring high performance for complex query environments (mean rank of 4.8).

Respondents were also somewhat concerned with real-time reporting, analytics, data warehousing (mean rank of 5.0) and ease-of-use considerations (also ranked 5.0). They were somewhat less concerned with low maintenance (rated 6.0), leading price/performance (rated 6.3), and fast deployment (rated 6.5). According to those interviewed, the least important feature of a relational database management system (ranked 7.9) is unstructured data management (e.g., e-mail, video, images, voice, etc.).

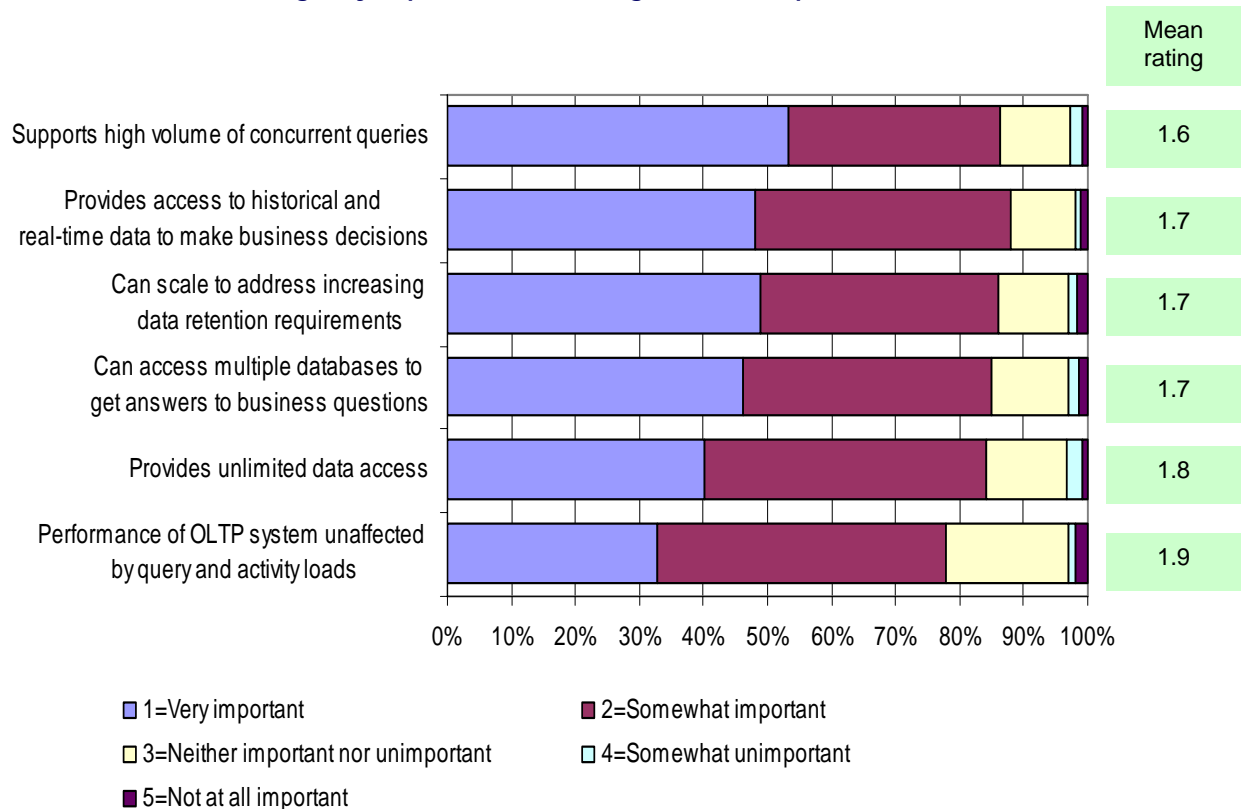
**Rank each of the following features of a relational database management system for your organization, with 1 being the most important, 2 the second most important, etc., with 10 representing the least important feature.**



We then asked participants to rate key capabilities of a relational database management system on a scale of 1 (very important) to 5 (not at all important) for improving their business data management practices. The most important capabilities included:

- *Access to Historical & Real-time Data:* Nearly 90 percent of respondents indicated that the ability to access both historical and real-time data to make business decisions is a must (mean rating 1.7);
- *Volume of Query Support:* Over 85 percent of respondents rated the ability to support a high volume of queries as important to very important for their businesses (mean rating 1.6);
- *Multiple Database Access:* Respondents also recognize the importance of accessing a variety of databases to address business needs – 85 percent indicated that accessing multiple databases to get answers to business questions was either important or very important for their organizations (mean rating 1.7);
- *Scalability of Database Management:* Over 85 percent considered that being able to scale database management functions to address increasing data retention requirements is important or very important (mean rating 1.7);
- *Unlimited Access:* Providing unlimited data access is important or very important for over 85 percent of respondents (mean rating 1.8); and finally,
- *Uninterrupted Performance:* Having performance of the OLTP system unaffected by query and activity loads is an important capability for nearly 80 percent of respondents (mean rating 1.9).

**Rate the importance of each of the following capabilities of a relational database management system on a scale from 1 to 5, with 1 being very important and 5 being not at all important.**

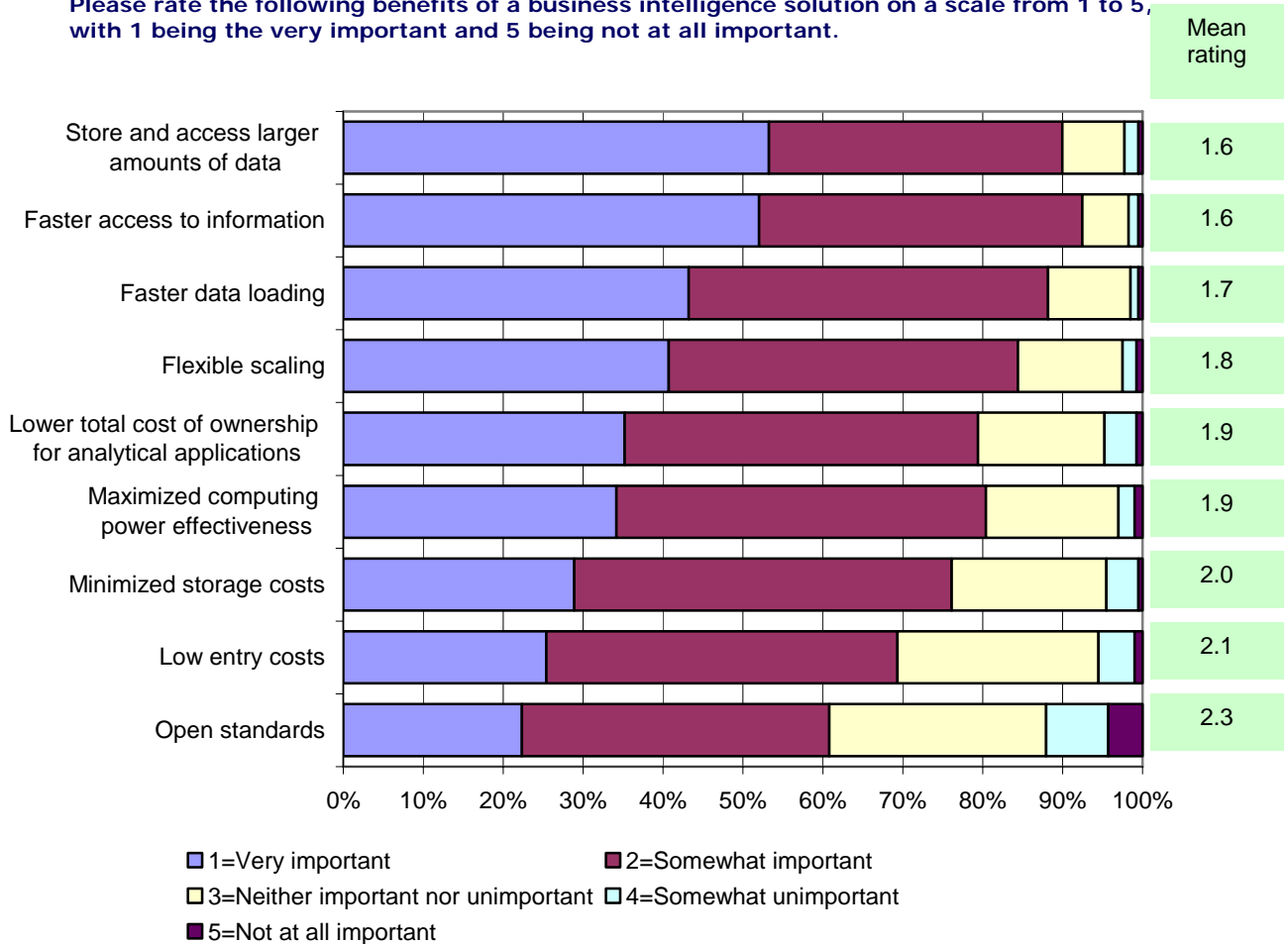


Finally, we asked respondents to rate the importance of a number of benefits associated with an integrated business intelligence tool. Respondents used the same 5-point scale employed on the previous question. The rated benefits are summarized below:

- *Faster access to information* – over 90 percent rated faster access as important to very important (mean rating 1.6);
- *Store and access larger amounts of data* – 90 percent viewed storing and accessing larger amounts of data as important to very important (mean rating 1.6);
- *Faster data loading* – 88 percent considered faster data loading as important to very important (mean rating 1.7);
- *Flexible scaling* – 85 percent endorsed flexible scaling as important or very important (mean rating 1.8);
- *Maximized computing powering effectiveness* – 80 percent rated as important or very important by 80 percent (mean rating 1.9);
- *Lower total cost of ownership* – nearly 80 percent deemed lower TCO as important to very important (mean rating 1.9);
- *Minimized storage costs* – just over 75 percent rated minimized storage costs as important to very important (mean rating 2.0);
- *Low entry costs* – almost 70 percent considered low entry costs as important or very important (mean rating 2.1); and finally,
- *Open standards* – about 60 percent endorsed open standards as important or very important (mean rating 2.3).

These results reveal strong consensus among IT and business professionals – most respondents agree that faster data access, increasing storage capability, and faster data loading are the top three benefits of adopting business intelligence solutions.

Please rate the following benefits of a business intelligence solution on a scale from 1 to 5, with 1 being the very important and 5 being not at all important.





## Key Insights

This study reveals several important aspects about business intelligence solutions that IT and business management professionals will find useful as they explore new solutions to existing data management challenges.

### Emerging information management approaches: The importance of business intelligence tools

Our results reveal that emerging tools and approaches for managing mission-critical business data are highly valued in today's enterprise. Specifically, this study shows that:

- Over 85 percent of respondents rated enterprise management for business analysis as critical to highly critical for ensuring the success of their organizations—slightly more than 40 percent find tools for business analysis highly critical and 45 percent of respondents said that emerging information management approaches are critical for guaranteeing high levels of service.

IT and business professionals recognize the importance of successful database management for ensuring the continued success of the enterprise.

### Current state of business intelligence deployment: Breadth and depth

While there is strong consensus that managing mission-critical business data is important, many organizations are not taking full advantage of the flexibility offered by business intelligence solutions. Our results indicate:

- Only about 20 percent of respondent organizations deploy business intelligence tools widely across the enterprise, and only 15 percent roll these tools out broadly after initial deployment.
- Most of the organizations interviewed deploy business intelligence solutions only to address specific problems (32%) or on a "scattered" basis across the enterprise (30%).

These findings demonstrate that organizations have a long way to go before they leverage business intelligence tools for enterprise-wide decision making. Nevertheless, we anticipate that the breadth and depth of business intelligence solutions will continue to grow as businesses struggle to meet new database management challenges. This is especially true given that some 42 percent of respondents recognize that business intelligence solutions are an important aspect for increasing revenues and about 38 percent see the direct connection between database management and increasing sales for their organizations.

## Information management tools: Solving critical business needs

This research highlights the need IT and business professionals have for maintaining high performance levels while minimizing security breaches and downtime due to increasing server demands. There is also growing importance placed on real-time data access, analytics, and data warehousing. In terms of current needs, this study identified the top three benefits of business intelligence solutions:

- **Faster access to information** – over 90 percent of participants deemed as important or very important.
- **Store and access larger amounts of data** – also rated as important or very important by 90 percent of those surveyed.
- **Faster data loading** – 88 percent endorsed as important or very important.

Respondents rated many capabilities of business intelligence tools as important for addressing these needs. Interestingly, there was no clear “winner” among the identified tools—each was rated with nearly equal importance:

- Ability to support a high volume of queries
- Ability to access both historical and real-time data to inform business decisions
- Multiple database access
- Scalability of database management
- Providing unlimited database access , and
- Providing uninterrupted performance

Overall, these findings show that business intelligence tools are increasingly viewed as an important, if not critical, aspect of business data management in today’s constantly changing environment. Most information technology and business managers recognize the need for storing business-critical data with flexible and ready access to support better business decision making, which is key to an adaptive and profitable enterprise.

***CNET Networks TechRepublic Community Research Programs***

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