IDC FINANCIAL INSIGHTS RESEARCH SPONSORED BY KODAK SERVICES FOR BUSINESS INFORMATION-DRIVEN BUSINESS LIFECYCLE MANAGEMENT (i-BLM)

Business Strategy: Get Ready for Business Intelligence 2.0 in Asia Pacific Financial Services

Executive Summary

This report explores the use of business intelligence (BI) in the financial services industry in four Asia Pacific markets: China, Hong Kong, Malaysia, and Singapore. Based on a survey and benchmarking exercise involving a diverse selection of financial services institutions (FSIs) in these markets, we discover that there will be more prevalent use of BI throughout the enterprise, more sophisticated and user-ready tools, and more business involvement in the use of BI—trends that make up what we term as Business Intelligence 2.0 (BI 2.0). Key insights from this report are:

- Select financial institutions in the region surprisingly have relatively mature BI practices, seen in the number of years that they have used BI, the frequency with which they use BI, and the percentage of staff that uses BI tools regularly. Furthermore, about 58% of the respondents have units already designated to improve business performance by using information from BI.
- Despite respondents' relatively significant experience in the use of BI, they still see the successes seen by their respective units in the use of BI as far from ideal—on a scale of 1-10 (with 1 being "great failure" and 10 being "very successful"), the average rating was 6.1.
- Financial services institutions that see great success in their use of BI have typically used BI tools in not just one but most key functions in the enterprise. It is this "prevalence of BI in the enterprise" that appears to be a very important success factor.
- BI 2.0 will also be marked by an expansion of usage. Not only will the prevalence of BI increase, but BI will also be used more frequently and more intensely, making it more indispensible in business decision making.

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In This Study

In this report, IDC Financial Insights explores the use of business intelligence in the financial services industry in four Asia Pacific markets: China, Hong Kong, Malaysia, and Singapore. This document is based on a series of executive surveys (Web-based surveys, face-to-face interviews, and phone interviews) with over 100 senior executives from a diverse selection of financial services institutions—banks, insurers, and capital market players.

This report first discusses the current use of business intelligence in the financial services industry, looking into the frequency and prevalence of use of BI among various organizations, as well as the data infrastructure that supports such usage.

Information gathered from a diverse range of financial institutions then enables us to develop a "BI Intensity Matrix," which assesses FSIs across several BI usage metrics such as the extent of use across different business units, the number of years in use, usage frequency, frequency of data updates, and the availability of a centralized BI unit in the enterprise. These metrics all lead up to a BI Intensity Score, which allows us to rank FSIs in terms of their actual use of BI. We are also able to relate these scores against business benefits, allowing us to see how BI usage ultimately results in business benefits such as higher revenue, lower cost, and improved market performance.

Last, we look at how FSIs see the use of BI evolving in the medium to long term. What is the state of business intelligence in the post financial crisis world? What factors will determine continued usage of BI, and what business objectives will it support? The ultimate conclusion is that nothing replaces actual experience in BI effectiveness—the more the institution persists in the use of BI, the greater and more significant are its benefits.

Methodology

IDC Financial Insights' definition of business intelligence refers to the access, data mining, integration, and analysis of data for information-gathering and decision-making activities (strategic, operational, and tactical) throughout the organization.

As for the BI tools (technologies), IDC defines the BI tools market as being made up of two market segments: end-user query, reporting, and analysis (QRA) on one end and advanced analytics on the other.

End-user query, reporting, and analysis software includes ad hoc query and multi-dimensional analysis tools as well as dashboards and production reporting tools. Query and reporting tools are designed specifically to support ad hoc data access and report building by either IT or business users. This category does not include other application development tools that may be used for building reports but are not specifically designed for that purpose. Multi-dimensional analysis tools include both online analytical processing (OLAP) servers and client-side analysis tools that provide a data management environment used for modeling business problems and analyzing business data. Packaged data marts, which are pre-configured software combining data transformation, management, and access in a single package, usually with business models, are also included in this functional market.

TABLE 1

Survey Respondents by Market Representation and Role in Organization

Country	Number of Respondents
Singapore	41
Malaysia	34
Hong Kong	19
China	15
Total	109
Roles	
CEOs/Heads of Lines of Business	22
COOs/Director of Operations	13
CFOs/Director of Finance	11
Senior IT Executives	36
Senior Risk Executives	17
Chief Marketing Officer	6
Other	4
Total	109

Meanwhile, advanced analytics software includes data mining and statistical software (previously called technical data analysis). It uses technologies such as neural networks, rule induction, and clustering, to discover relationships in data and make predictions that are hidden, not apparent, or too complex to be extracted using query, reporting, and multi-dimensional analysis software. This market also includes technical, econometric, and other mathematics-specific software that provide libraries of statistical algorithms and tests for analyzing data.

Table 1 details the number of respondents by country and role in organization.

Situation Overview

As the dust clears from the global financial crisis, and as more signs of recovery take hold, financial institutions find themselves in a new competitive landscape. Certainly, market dynamics have changed—new players have emerged just as old market leaders have become less relevant, new business models continue to be created, and several market drivers such as regulation and customer preferences have markedly changed the rules of the game.

The promise of business intelligence is this—it is supposed to help institutions make sense of and react to these new business trends and conditions. In timely fashion, BI tools and BI vendor propositions have also scaled up in sophistication, effectiveness, reliability, and user-friendliness. The confluence of ever-significant BI requirements with more effective BI technologies is one of the key characteristics of this trend that we call Business Intelligence 2.0.

Ten Things You Need to Know About the Current Use of BI

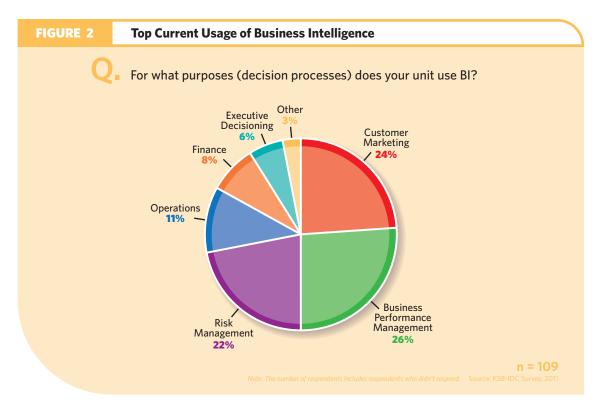
Of course, it helps understand the pre-2.0 use of business intelligence among financial institutions. From the KSB-IDC survey, we discover the following 10 key trends:

1. Decision makers and influencers change through the years. In the initial stages, the CEO is seen as the most influential decision maker in making investments in BI. Executive management support and sponsorship are obviously crucial to get the initial dollar outlays approved, as well as to sign-off on overall business intelligence strategies and the selected BI vendors. Within three to five years, most of the influence goes to the senior executives within the IT department, alluding to the effort of planning for, integrating, and bringing online BI technologies. Soon enough of course, the task is not so much to deploy and implement technology, but rather to ensure that BI is used in day-to-day functions—in other words, to "operationalize" BI tools and systems. In five years, more responsibility and influence are with line-of-business managers.

Source: KSB-IDC Survey, 2011

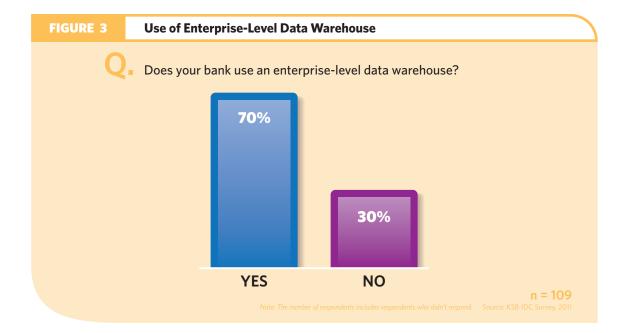
2. **BI everywhere!** The respondents identified about 20 functional uses of business intelligence in the financial services organization (*see Figure 1*). However, it appears that BI finds more usage instances and with greater prevalence in three broad areas: business performance management, marketing, and risk management (*see Figure 2*). The use of BI in other areas might be highly targeted to specific functions (e.g., finance MIS or business case formulation) or not as prevalent (e.g., operations management).

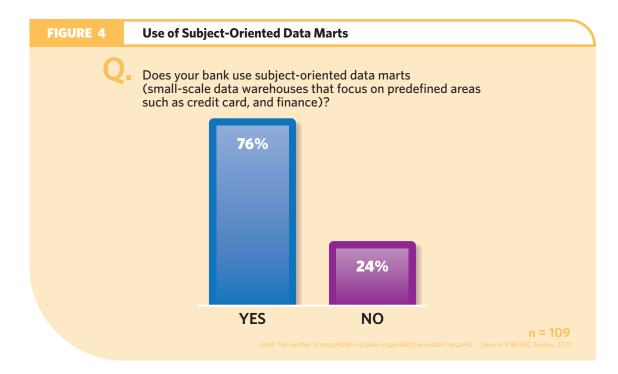


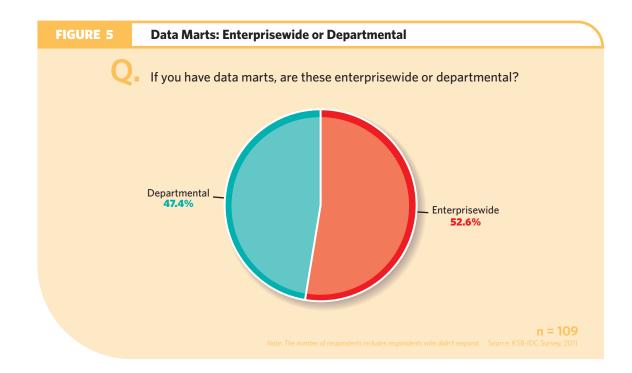


No technology vendor is dominant across all functional uses of BI.

- 3. No BI vendor is dominant across all functional areas but will this change? Among the financial services institutions surveyed, no technology vendor is dominant across all functional uses of BI. However, we see one or two vendor strongholds in specific markets as well as in specific functional areas. We acknowledge, however, the ongoing consolidation in the business intelligence and business analytics space, which have shifted market shares and vendor propositions accordingly. We also cite an emerging trend of vendor consolidation within institutions themselves, with one respondent remarking that they "plan to narrow key BI vendors to two, possibly one, across operations in the region."
- 4. Data infrastructure varies. Among significant users of BI (the qualified base of this survey), about 70% have built or are building enterprisewide data warehouses. However, a greater proportion,76%, rely on subject-oriented data marts, of which half have data marts shared across the enterprise, with the other half keeping data marts that are specific to select business units or functions. Some institutions with enterprisewide data warehouses also tactically invest in data marts (enterprisewide or departmental in equal numbers) (see Figures 3–5).

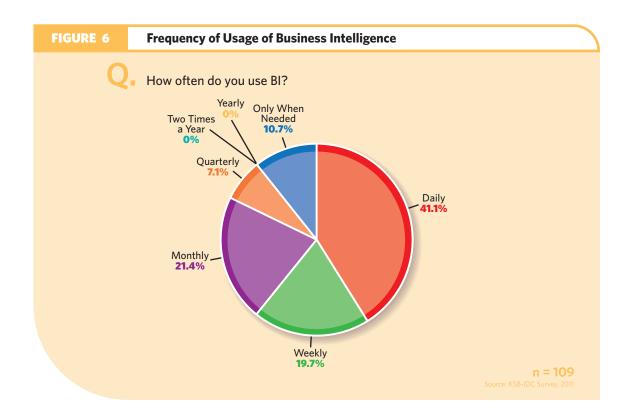


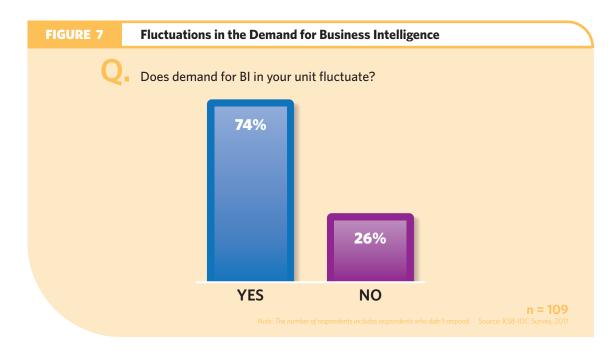




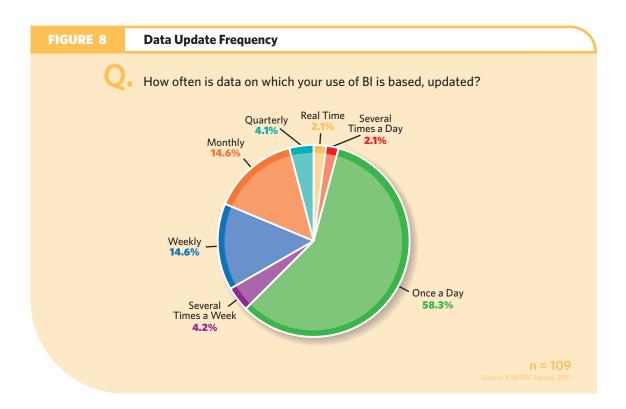
Costs rise or fall depending on the strategic intent of the organization, and how much reliance is given to BI in designing, deploying, and managing organization strategy and performance. 5. It does not necessarily get cheaper (or more expensive). The cost associated with the use of business intelligence is very difficult to approximate, much more to correlate with either length of use or number of users. Ultimately, however, costs rise or fall depending on the strategic intent of the organization, and how much reliance is given to BI in designing, deploying, and managing organization strategy and performance. The more intense users of BI spend more but also gain more in the process.

6. Bl usage is surprisingly high. Reflecting the significant use of BI among our respondents, about 60% of the executives surveyed report that they use BI at least once a week (41.1% actually use it on a daily basis), which is probably a characteristic of our qualified respondent base but might also indicate a surprisingly high reliance on BI by the industry at large (see Figure 6). However, 74% of the respondents state that demand for BI fluctuates across the organization (see Figure 7).



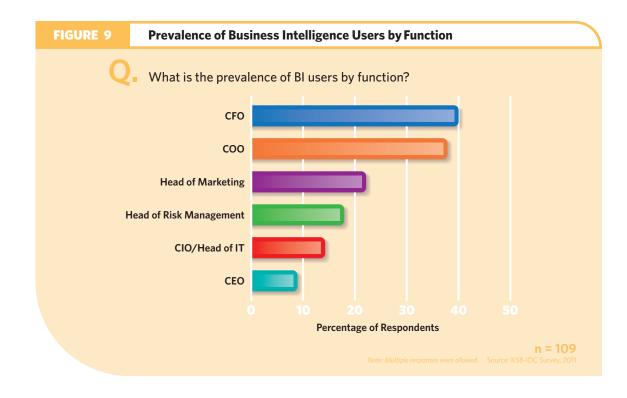


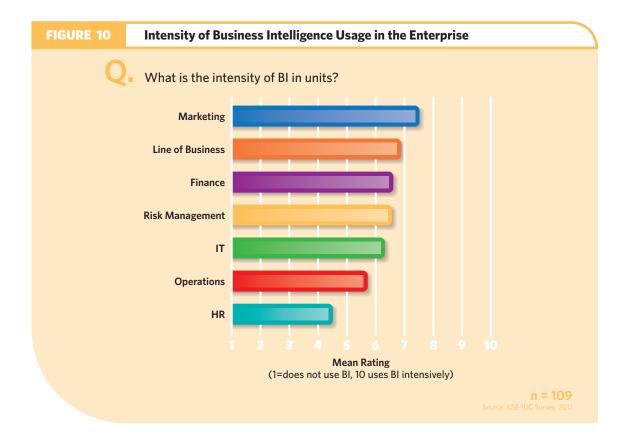
7. Data is frequently updated. Also reflecting the BI-related maturity of the survey respondents, 58.3% of the executives state that data on which BI is used is updated at least once a day. IDC Financial Insights believes this to be much more frequent than what could be seen in the rest of the financial services sectorin Asia Pacific (see Figure 8).



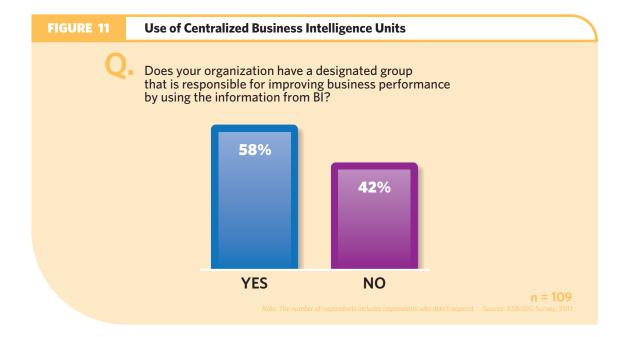
8. Prevalence of BI users and intensity of usage vary by function. Specific functions in the enterprise have greater number of staff using BI, relative to other units. In Figure 9, we see the office of chief financial officer (CFO) typically sees close to 40% of staff using BI regularly. The office of chief operations officer (COO) sees about the same proportion, at 37%. The offices of the heads of marketing (22.5%), risk management (17%), IT (14%), and the chief executive officer (9%) see fewer direct line staff using BI regularly.

When asked how intensely these various functions use BI, the respondents associated higher intensity to marketing, followed by line-of-business teams, and then to finance and risk management. More reliance on BI needs to be seen in functions like HR and operations (see Figures 9 and 10).





- 9. **Regular usage increases through experience.** As the organization gains more experience in BI, regular staff usage increases slightly. This is easy to explain: the business benefits of BI take hold, in the process justifying BI usage, thus encouraging further usage. A virtuous cycle of usage and benefits ensues. Furthermore, financial institutions that are relatively new to BI as well as those financial institutions with newly launched BI programs noticeably aim for a higher percentage of staff using BI regularly.
- 10. **Centralized BI units is an emerging trend.** About 58% of the respondents have units designated to improve business performance by using information from BI (*see Figure 11*). We expect this proportion to grow in the medium term.

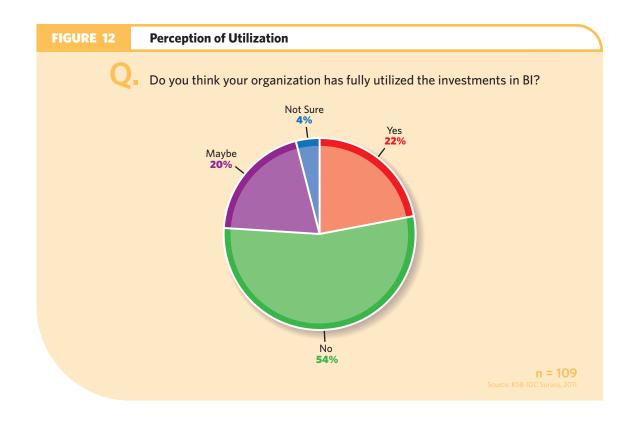


But Success in BI Use Leaves Much to Be Desired

Despite the relatively significant experience of our respondents in the use of BI, they still see the successes seen by their respective units in the use of BI as far from ideal—on a scale of 1-10 (with 1 being "great failure" and 10 being "very successful"), the average rating was 6.1.

Furthermore, only 22% of the respondents believe that they have fully utilized BI investments, with more than a majority—54%—stating that BI is not really fully utilized in the enterprise (see Figure 12).

Respondents still see the successes seen by their respective units in the use of BI as far from ideal—the average rating was 6.1 on a scale of 1–10.



The Approach

What are the best users of BI doing? What are the factors that drive them to successful usage? These were our key objectives in designing a BI Intensity Matrix that rates financial institutions across several indicators of BI usage in the enterprise. The matrix results in a BI Intensity Score for each unique institution.

The BI Intensity Matrix

The following are key components of the BI Intensity Matrix, and the set of criteria we used to come up with the 50-point BI Intensity Score:

- **Prevalence of BI** 10 points. This criterion rates the institution on how intensely BI is used in not just one but all key functions in the enterprise (specifically, operations, finance, HR, IT, risk management, marketing, and various lines of business).
- Experience in Bl use 10 points. This criterion rates the institution on the length of time Bl has been in use in the organization or key unit and how similar (or vastly different) this extent of experience is across key functions of the financial institution.
- Data infrastructure 10 points. This criterion rates the institution primarily according to the use of an enterprise data warehouse and/or the institution's effective use of subject-oriented data marts.
- Data sources 10 points. This criterion rates the institution according to the quality of data sources, based on frequency of updates, frequency of usage, and technology vendors being used.
- Bl in the enterprise 10 points. This criterion looks at the existence of a designated unit that looks at Bl and the institution's self-rating on the full utilization of Bl tools and technologies.

Relating Scores with Success in BI

Overall, total BI Intensity Scores correlate closely with financial institutions' self-rating of how successfully BI has been used in their organizations.

The following are positive relationships of note that will help organizations understand what will ensure them a higher chance of succeeding in BI:

- Prevalence of BI, the indicator of how intensely BI is used in not just one but all key functions in the enterprise, is the most important success factor. Institutions that not only have high intensity of BI usage but also have high intensity in more (or all) key units of the enterprise see their business objectives being met. In other words, the more units use BI in the organization, the more chances there will be for BI to result in the attainment of business objectives.
- The existence of an enterprise data warehouse is highly correlated with success in BI, with financial institutions that have a data warehouse reporting higher success rates than those without an enterprise data warehouse (6.6 versus 5.0). However, a few financial institutions can still see great success in BI with what they described as "smart reliance on subject-oriented data marts." Ultimately, data architecture does not matter as much as the quality and reliability of data.
- Greater frequency of BI usage typically results in higher ratings of BI success. The institution has to rely on experience to be more confident in using BI more frequently and in more activities. The advice is this—just persist in using BI, ensuring of course that BI is used correctly.
- It is not so much about technology but more about business use. Among
 institutions that see the greatest success in BI, the reasons typically cited for
 why BI usage is deemed to be successful do not so much imply technology
 ROIs but instead revolve around the achievement of business objectives.
 The top indicators used to justify successful usage of BI are:
 - BI's ability to meet business goals
 - Effective empowerment of business users
 - Bl's contribution to growth in business
 - Business users' ability to use tools effectively
- Failed BI initiatives are typically explained by a combination of business and technology failures. Among the least successful BI users, the most cited reasons for failure include:
 - Lack of empowerment of business users
 - Slow reporting time
 - The BI solution not addressing business users' needs
 - Long project implementation times
- Do not consider BI as just an IT project. In general, the top benefits seen in the use of BI are not necessarily technology related. Most institutions are more ready to cite business benefits (growth in business, greater market share, and the acquisition of new customers) as well as improved risk management, rather than cite the sophistication of technologies themselves.

Future Outlook

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What improvements in the use of BI will you most like to see in your unit?

TABLE 2

Business Intelligence Wish List

Improvements Specified	Percentage of Respondents
Easier tools configuration so business people can set up reports without IT help	20.4
Ability to do analysis across the enterprise (ERP, CRM, database, etc.)	13.9
Use of unstructured data from different touch points (e.g., application forms, customer feedback, call center)	13.0
BI that is more business driven	13.0
Alignment of IT and business teams in support of BI projects	10.4
More choices in the presentation of reports (i.e., customizable reports)	10.0
Standardized BI tools used across different business units	10.0
Faster turnaround of projects	8.3
Other	1.0

The relatively mature adoption of BI in some of Asia Pacific's most dynamic financial institutions already heralds the arrival of BI 2.0. Although several organizations still need to see BI's intended benefits, these institutions will soon see the benefits of experience and therefore gain greater intent to fully adopt BI throughout the organization.

Certainly, financial institutions want to see a combination of strategic, tactical, and practical improvements to the use of BI in their respective units (see Table 2). The wish list includes demand for more sophisticated, more functional, and more user-friendly tools. They also underscore the need for better IT and business alignment.

However, we note more significant changes to the use of BI in financial services that underscore how BI 2.0 will indeed be different from what we have so far seen in the use of BI in Asia Pacific financial institutions:

 BI usage up to now has been equally spread across marketing, risk management, and performance management (refer back to Figure 2). In the next five years, BI will become yet more prevalent in customer marketing—it will be used with greater frequency and greater intensity in

n = 109

Source: KSB-IDC Survey, 2011

customer-related analysis and customer marketing activities (*refer back to Figure 1*). Our respondents tell us that they will focus more on customer portfolio analysis, customer segment analysis, and insights into customer preferences.

- More institutions will use more unstructured data for BI, something that
 was not done much in the past as financial institutions focused initially on
 traditional data sources. Institutions that received high scores in our BI
 Intensity Matrix especially recognize the promise of using unstructured data,
 seeing this as a means to more effectively understand their customers and
 have more meaningful interactions at every point of customer contact.
- Increasing focus on the customer will mean that BI will increasingly rely on customer metrics as justification of success. The advent of better times mean renewed focus on key performance indicators such as new customers won, loyalty, advocacy, and share of wallet. There will be increasing demand for activities that predict customer buying behavior and customer demand, customer next-best offers, and customer value.
- In addition, the industry has increasingly come to understand that the "single customer view" not as an end goal but as an enabler of business capability. Many BI initiatives in the past did not see benefits because they just focused on having a single customer view as the holy grail of all activities—without clearly mapping out what various units are supposed to do with that information. Now, the industry knows that the single customer view has to be used, and the organization has to act on it—across all channels. BI 2.0 will be marked by smarter use of data assets such as the single customer view across the enterprise.

- Our respondents also refer to greater intention to focus on "techniques, tools, and practice"—a category we used to put together initiatives in ensuring more sophisticated models and analysis (such as predictive modeling and price optimization) but also in more effective use of BI across the enterprise. Financial institutions would like to see more units religiously using BI, and ideally with common data sources and references. All these intentions point not so much to additional BI investments but to maximizing the capabilities of BI technologies at hand.
- The current leaders in BI usage (those with the highest scores in our matrix), which show the way for their peers in the region, will focus on better IT business alignment in BI projects, at the same time ensuring that BI becomes more business driven. As seen in the previous section, as an institution becomes more experienced in BI, more responsibility is given to lines of business. This appears to be one of the most distinguishing facets of BI 2.0. BI will be less IT led but will ultimately focus more on the business user.

Essential Guidance

Actions to Consider

The industry needs to get ready for Business Intelligence 2.0, which is a combination of trends in the practical use of BI—more prevalent use throughout the enterprise, more sophisticated and user-ready tools, and more business involvement. Essentially, BI 2.0 is utilizing the promise and capabilities of business intelligence in the day-to-day practice of financial institutions.

BI 2.0 will also be marked by an expansion of usage. BI will not be utilized in just one or two units in the organization but will be used through many more functional areas. It will also be used more frequently and more intensely, making BI more indispensible in business decision making. This expansion of usage addresses a key discovery in this survey—that despite relatively significant experience in the use of BI, only 22% of executives believe that their institutions have fully utilized BI investments.

BI 2.0, of course, benefits from experience. Indeed, the more the institution persists in the use of BI, the greater and more significant its benefits, and the more justification there will be for the further use of BI in the enterprise.

Certainly, financial institutions through the years have made significant investments in BI. They are expected to invest a lot more moving forward. The greater prevalence of BI will help ensure that these investments are maximized—with more users utilizing BI, and more business objectives attained, there will be more bang for buck.

It is also important that the best practices an institution has learned in its early usage of BI are cascaded throughout the newer uses of BI. Many institutions will have to ensure an efficient transfer of knowledge: how can my BI-savvy risk management unit teach the new users of BI in operations? How is the use of BI in marketing similar or dissimilar to the use of BI in the CFO office? Another great promise of BI 2.0 is that it will bring the emergence of a more complete view of the customer. This will be facilitated by the integration of customer information from various units (various lines of business, risk management, operations, and so forth) that are, by themselves or in tandem, getting more BI savvy. We also see the introduction of new sources of customer information, specifically unstructured data, from where a lot more context on a customer can be derived. The financial institution should be able to have a more insightful view of its customers and their transaction patterns, habits, and preferences, and from there, have more meaningful customer interactions. Our survey foresees more prevalent, and yet more innovative, use of BI in customer marketing.

Finally, BI 2.0 sees the financial institution move from a very high reliance on technology and tools toward a BI program that is more business led. Of course, technology will still play a crucial role — from the improvement of data architectures to the creation of single data repositories and more sophisticated analytics tools and applications. BI 2.0 will not only see greater technology capabilities made available to business users but also foster greater confidence and skill by these business staff in using BI in their day-to-day functions. BI 2.0 will see business intelligence brought closer to the frontlines, where its potential is unleashed and where its promise is hopefully fulfilled.

Learn More

Related Research

Business Strategy: Top 10 Strategic IT Initiatives for Asia Pacific Banks in 2011 --New Pursuits and Priorities (IDC Financial Insights #FIN226446, January 2011)

Synopsis

This IDC Financial Insights report explores the use of business intelligence in the financial services industry in four Asia Pacific markets: China, Hong Kong, Malaysia, and Singapore. Based on a survey and benchmarking exercise involving more than 100 financial services institutions in China, Hong Kong, Malaysia, and Singapore, IDC Financial Insights discovers the extent to which business intelligence (BI) is currently used among leading players in the industry. The report also highlights how exactly BI will gain yet more relevance in the future.

Michael Araneta, associate research director for IDC Financial Insights remarks, "There will be more prevalent use of BI throughout the enterprise, more sophisticated and user-ready tools, and more business involvement in the use of BI. The convergence of these trends make up what we term as Business Intelligence 2.0." Araneta continues, "BI 2.0 sees the financial institution move from a very high reliance on technology and tools toward a BI program that is more business led. BI 2.0 will not only see greater technology capabilities made available to business users but also foster greater confidence and skill by these business staff in using BI in their day-to-day functions."

About Kodak Services for Business (KSB)

Kodak Services for Business is your trusted partner in accelerating business impacts from operations transformation and enablement projects. In Asia, we specialized in information management solutions, such as Content Management, Business Process Management, and Business Intelligence. We also have proven track record over decades in providing vertical BPO solutions, such as Payment and Receivable services, Intelligent TransPromo services, and Finance & Accounting services. Our BPO operations footprint spans across the whole Asia, which provides our client springboard for regional expansion and vehicle to excel in speed to market. In addition, our service offerings are all enabled by Kodak's leading edge imaging, document management and printing solutions, which deliver quality yet low entry barrier to our clients with a flexible service model.

Ivan Chan is the Director and Head of Greater China and Southeast Asia with Kodak Services for Business (KSB). Ivan has been a management consultant for over a decade, advising C-level clients and solving the toughest business problems for major financial and commercial institutions around the world. He is an expert in operations and technology (O&T) strategy, particularly in global/ regional operating-model transformation, outsourcing, IT enablement, and business intelligence. Furthermore, Ivan has deep experience in coaching O&T client executives, as well as driving complex changes in different Asian cultures. Before Kodak, Ivan had been with McKinsey & Company and Cap Gemini.

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He is fluent in English and several Chinese dialects including Mandarin and Cantonese.

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It's time for you AND Kodak