Notes from the CIO Summit 2012 Breakfast Briefing in Kuala Lumpur

**Leveraging Analytics and Big Data for Business Growth: 7 Steps to Kick start your Big Data implementation**

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**IN THIS REPORT**

This IDC Post-Event report captures the key discussion takeaways from the recent Breakfast Briefing jointly organized by IDC and Wipro as part of the IDC CIO Summit held in Kuala Lumpur on 6 September 2012. The Breakfast Briefing was by invitation only and attracted an audience consisting largely of CIOs and other CXOs from across multiple industries in Malaysia. The session began with a brief presentation on analytics and Big Data by K.R. Sanjiv, Senior Vice President and Global Head, Analytics and Information Management, Wipro Technologies, followed by a discussion about the use of analytics by the participating companies and on their view on how relevant Big Data was to their organizations.

Note: The names of the participating organizations have not been divulged for confidentiality reasons.

**SITUATION OVERVIEW**

As long as there has been data, organizations have been confronted with the challenge of capturing, managing, and analyzing that data in a cost-effective and acceptable time frame.

Recent years have seen a tremendous growth in the amount of data that is being generated from transactions and interactions: people are exchanging with each other and with organizations through Web sites, device generated data and more generating enormous amounts of valuable information. Servers, networks, machines, sensors, cameras, and countless other devices are continuously capturing and generating transactions.

This massive flow of data has been understood to have an unknown value-to-volume ratio and the cost of collecting and analyzing all of this data, in its entirety, has been economically unfeasible to the large majority of organizations. But as the technology markets have evolved, analyzing Big Data is rapidly becoming feasible to a much larger segment of the market.

**Big Data Definition**

The intelligent economy produces a constant stream of data that is being monitored and analyzed. IDC estimates that in 2011, the amount of information created and replicated surpassed 1.8ZB (1.6 trillion gigabytes). Social interactions, mobile devices, facilities, equipment, R&D, simulations, and physical infrastructure all contribute to the flow. In aggregate, this is what is called Big Data.

IDC defines Big Data technologies as a new generation of technologies and architectures designed to extract value economically from very large volumes of a wide variety of data by
enabling high-velocity capture, discovery, and/or analysis. Big Data thus touches upon several layers of the technology stack (see Figure 1).

**FIGURE 1**

Big Data Technology Stack

- Interface and Applications
- Analytics & Discovery Tools
- Data Organization and Management
- Infrastructure

Source: IDC, 2012

In addition to the pure technology stack above, a large part of the Big Data analytics market relates to services. Services includes business consulting, business process outsourcing, plus IT project-based services, IT outsourcing, and IT support, and training services related to Big Data implementations.

**The Case for Big Data**

Big Data technology use cases receiving the most attention in the media tend to focus on online media and social networking companies. However, on a worldwide level, the cases we have observed from IDC clients and secondary sources point to a broad adoption across industries, geographies, and business processes.

The opportunities that Big Data analytics provides are thus quite broad, one of them is around customer insight. The ability to track external semi-structured customer information is perceived as a source of potential value and at this time, competitive advantage. An organization might be able to extract the sense of purchase from analyzing a range of factors related to an online interaction, and online social platform conversations to create improved propensity models, to use during real-time interactions with customers. Customer service and interaction management is, therefore, one of the most obvious opportunities, but not the only one. Industries that produce huge volumes of data, from various sources, such as logistics and manufacturing systems are also now looking at ways to get more real value out of their analytics investments.

But the opportunities go far beyond that. Big Data can offer insight that can benefit an organization across the board — from reducing operational cost to improving the agility of the business to increasing cash flow, as illustrated in Figure 2.
IDC’s ongoing conversations with end-user organizations across the APEJ region reveal that overall adoption of Big Data is still at the very early stages. In fact, according to the latest IDC Asia/Pacific Big Data and Analytics Pulse Survey (July 2012), over 35% of organizations are not yet aware of the Big Data term or what it refers to. But there are significant differences across vertical industries and countries. Unsurprisingly, higher levels of awareness tend to be found in some of the most mature countries (e.g., Australia and Korea). Similarly, in terms of vertical industries, financial services stands out, with only 16% of respondents recognizing to be unaware of the Big Data term. Predictably, larger organizations in the region appeared to be the most impacted by this trend and aware of the opportunities and challenges that Big Data presents to them.

This picture was mirrored in the feedback from the delegates at the Kuala Lumpur Breakfast Briefing. The general consensus among the delegates was that although they saw potential in Big Data, the concept was still not concrete enough for them to take any initiatives in the short term. One delegate expressed the viewpoint that even though vendors have done a good job pitching the grand idea of Big Data, end users cannot see how this can move beyond a marketing pitch. Big Data, therefore, remained “out of reach” in the near term, as one delegate described it. Still, about 40% of the delegates did say that they were considering some sort of Big Data initiative within the next year or so and the remaining 60% indicated that they would do so in the 1-2 year time frame.

Whereas the concept and potential use cases for Big Data are still being questioned by most companies in this region, their counterparts, especially the larger ones, in North America and Europe have started to focus on this area. In fact, less than half of organizations in Europe...
indicate that they are not yet ready for Big Data, and IDC’s research indicates that almost a quarter of European companies will considerably increase their use of Big Data in the next year or so (see Figure 3).

**FIGURE 3**

Attitudes and Readiness for Big Data in Europe

The Impact of Business Analytics

But the extent to which organizations are seeing a use case for Big Data also heavily depends on how much they are currently using business analytics in their businesses today. Business analytics can be used on a variety of levels within an organization, ranging from purely tactical analytics that may facilitate automation of specific business processes or standalone decisions made by sales or marketing, to a much more strategic use whereby business analytics play a part in decision making processes across the enterprise, as illustrated in Figure 4.
Although the use of business analytics has started to gain traction in the Asia/Pacific region, the relatively low maturity level does mean that it will spending on business analytics will continue to be dwarfed by what we see in North America and Europe in the foreseeable future. This region will only account for about 7.6% of the overall business analytics market in 2012, and although the region is growing faster than North America and Europe, IDC still only expects it to account for 8.6% (see Figure 5). IDC expects the Malaysian market to grow on par with the regional average at a compound annual growth rate of 12.1% over the next 5 years.
The discussion at the Breakfast Briefing clearly indicated that the lack of readiness for Big Data was tied to a low level of maturity with regards to the use of business analytics.

Any new technology adoption has its leaders and followers. Leaders leverage new technologies to create a sustainable profitable growth and differentiator for itself.

A few examples shared by delegates:

- One delegate from the insurance industry was now focusing on BA for its operations and sales. The turnaround time in the insurance industry is of vital importance and they were now using BA to enhance their ability to make informed decisions quickly with regards to insurance policies, risk assessments and claims.

- One attendee highlighted the use of BA outside of the typical sales and marketing environment. In their case, it was used for predictive maintenance allowing the organization to predict possible downtimes and plan accordingly.

- A government body that participated highlighted the need for a "champion" to lead the BA efforts — especially in order to demonstrate return on investment (ROI). The body had completed one significant BA project and could now see a clear ROI as a consequence. Because of these results, they now see more opportunities to expand the implementation scope.

However several delegates said that the drive for business analytics (BA) adoption was usually hindered by resource constraints as well as internal structural and cultural issues. So although a BA project might be initiated, many companies lack the internal culture to adapt and fully leverage the investment and thus have BA make a real difference.
The organizations present also confessed that they tend to work in silos, with patches of IT and systems implementation across the business creating breakdown in communication and information flow, making cross-organizational implementation of BA very difficult.

The delegates actively shared that they were using business analytics in their organizations, and the use was mostly done by individual business units and not on an organizational level.

There is also the issue of who will take the lead. Should it be sales and marketing or the IT department? Some delegates indicated this issue of ownership and the lacking ability to drive and coordinate different stakeholders as a core challenge in realizing the full benefits of BA.

Given these obstacles, the "default" approach from the participating CIOs and IT managers appeared to be one of doing very little and passing the initiative for BA usage onto their business units. Consequently, their efforts were mostly driven by sales and marketing.

CONCLUSION

7 Steps to Kick Start Your Big Data Implementation

It is clear that adoption of Big Data is currently low, but many organizations are still apprehensive when it comes to Big Data and that maturity levels are still relatively low when it comes to implementing BA in Malaysia. This was clear from the feedback from the delegates at the Breakfast Briefing, but it is also substantiated by IDC's research in the region.

Given the business relevance and value that BA and Big Data can offer, IDC believes that CIOs and IT departments should be more proactive in promoting the use of BA in their organizations. IDC suggests the following 7 steps to kick start your Big Data Implementation:

☑ Establish your business case first. Agreeing on this from the beginning will shape all decisions, going forward, on your approach to analytics, whether it is traditional or Big Data. Securing buy-in from LoB and IT is a greater reality, when both sides have agreed on the expected outcomes. A business case that quantifies the outcomes into revenue gains, cost reduction, or risk reduction can be used to determine how much investment is worthwhile. The standard calculation for total cost of ownership (TCO) and estimation for ROI will allow executive sponsors to support the initiative, or not.

☑ Planning, strategy, and enterprisewide architectures are as important — if not more — when it comes to Big Data and business analytics. But if the daunting scope of all this would result in long delays or inertia, you may need to relax these requirements in favor of smaller, more ad hoc implementation.

☑ Assess your analytics maturity. The process of transitioning to each new level in the maturity model is a significant effort for any organization. The more legacy systems and processes that exist, the more planning and commitment is required to successfully make the transition. An objective and clear evaluation of where your organization is today will guide the next steps required to prepare for the transition to a higher maturity.

☑ Cut it down to size. Most business units will have specific issues where business analytics will provide value. If the solutions appear too complex to handle, then perhaps you are over thinking either the problem or the solution.

☑ Get a champion. Make sure that the individual business units that do adopt business analytics are made visible to the rest of the business, and have them evangelize the use to other parts of the business.

☑ Start with tools that you are familiar with. Many CIOs think of business analytics in terms of advanced and complicated solutions. But several solutions are now focusing on ease of use and visual representation and manipulation of data, thus making analytics accessible to new types of users. And even the upcoming version of Excel contains data manipulation and data
mining tools within a framework that most users are familiar with. Although they may not offer quite the same analytical power as full-fledged analytics tools do, they allow you to get started.

Seek help. If the complexity of the Big Data and BA implementation appears overwhelming, then seek help from systems integrators, consultants, and vendors. While we do say that you may need to relax your planning and strategy requirements, they are still necessary to ensure efficient and cost-effective implementation. So seek help from third parties that know the pitfalls and have the know-how and the processes in place to deal with them.