SIRIUS & COMPANY

Digitising to differentiate – Sirius & Company Global Survey Results

Sukhendu Pal and Dr. Gina Sum

w: Siriusandcompany.com

e: enquiries@siriusandcompany.com

Digitising business to radically improve performance is a hot topic for many companies today. Senior executives in all industries are using digital advances such as big data, analytics, mobility, social media and smart embedded devices as well as improving their use of traditional technologies to change customer relationships, internal processes and value propositions. So, how are companies managing the spread and scope of digitisation?

As businesses continue to experience unpredictability and unprecedented competition, senior executives are increasingly embracing digitisation and reinventing their businesses to remain relevant according to a recent Sirius & Company survey.

The survey was carried out from July 2013 to July 2014, and garnered responses from 1,054 senior executives representing the full range of industries, regions and company sizes. Only 207 of these senior executives have either direct or indirect responsibility for information technology (IT) in their orgainsations. In the survey, we asked respondents about six enterprise-wide digitisation trends (see Exhibit 1):-

1. Big data;
2. Cloud computing;
3. Information technology infrastructure management;
4. Information security;
5. Bring your own device (BYOD); and
6. Productivity of digital workers.

We specifically inquired about their organisations' adoption of and focus on each trend, priority of IT organisation over the next 3 years, what impact technologies can (and do) have on the productivity of their workforce, and what barriers organisations face in achieving their strategic objectives. We found that senior executives remain optimistic about reinventing their businesses for the digital age.

Senior executives, for example, say that their organisations are increasingly using digitisation to engage with employees, improving productivity of their workforce and reaching customers through new channels. What's more, a growing number of senior executives report that they place a higher priority to increase their companies' performance and workforce productivity using innovative IT infrastructure management solutions.

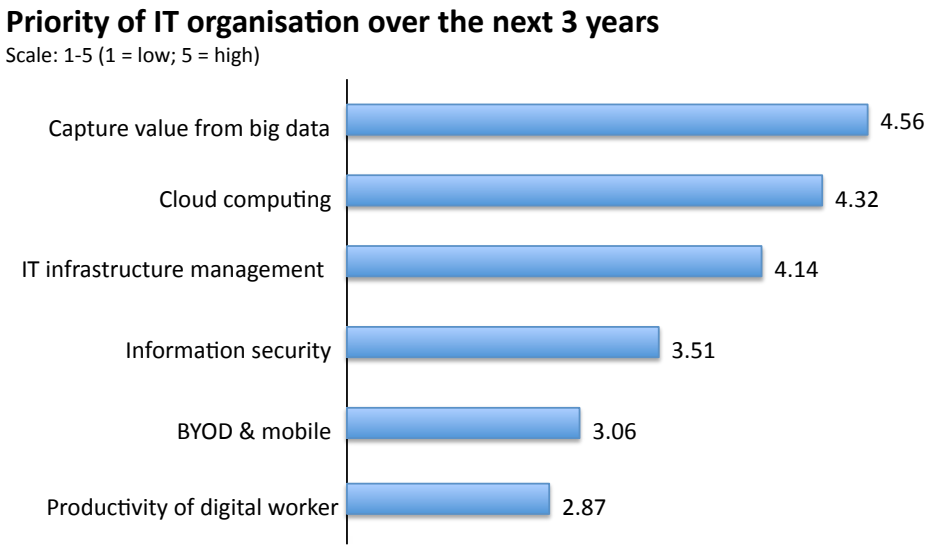


EXHIBIT 1

Big Data

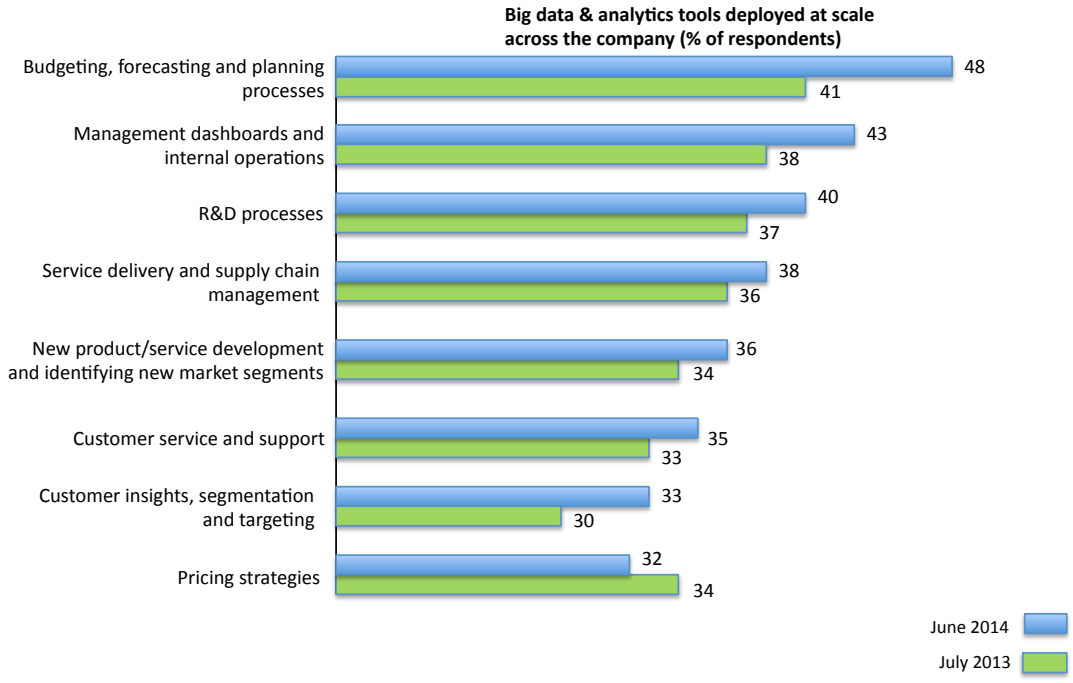
Big data is a term for a massive phenomenon that has rapidly become an obsession with entrepreneurs, scientists, governments and the media. But, while big data promise much to scientists, entrepreneurs and governments, they are likely to disappoint businesses if they believe in hype and ignore some very familiar statistical lessons. For example, around 56% senior executives say that the new breed of data scientists often care about correlation of data rather than causation. Figuring out what causes what is hard and sometimes impossible. But, figuring out what is correlated with what is much easier and cheaper. One senior executives of a large pharmaceutical company in charge of global clinical data management reported that "analysis of mere correlations is inevitably fragile. If you've no idea what is behind a correlation, you've no idea what might cause that correlation to break down." The chief data scientist of a supermarket chain responded by saying "Nobody wants 'data'. What they want are the answers." To use big data to produce answers will require large strides in statistical methods and vastly improved analytical tools. The Chief Information Officer (CIO) of a large oil & gas company told the survey that "Big data has arrived, but big insights have not." Therefore, the challenge most senior executives facing now is how to solve new problems and gain new answers – without making the same old statistical mistakes on a grander scale than ever.

Our responses also indicate growth in the company-wide use of big data and analytics tools. Especially, increased use of data to improve management dashboards, R&D, budgeting and forecasting (see Exhibit 2).

Cloud Computing

Technology experts describe a cloud computing world in which, un-tethered by the need to be physically anywhere, companies would all put their information in the cloud and access it by any device they chose; anywhere their employees happened to be. Cloud computing service providers would make sure that the data was protected, that it was safe, and that it didn't fall into the wrong hands. The vision is compelling, particularly for businesses that want to ditch their expensive server farms and hard-to-maintain infrastructure, and run lean, mean, and just-in-time with all the flexibility promised by software as a service. That's the vision. The unfortunate reality is that once it's in digital form, information has a tendency to spread like wildfire. So, where does that leave a CIO who's being encouraged to put more and more of his company's business information into the cloud? Reflect for a moment, what would happen if sensitive information — information about personnel competency evaluations, trade secrets, closed negotiations, pricing and the like — went viral?

The use of big data is growing



NOTE
Figures were recalculated after eliminating "Don't know" responses

EXHIBIT 2

The survey found that 71.4% senior executives with no direct or indirect responsibilities for technology are sceptical of cloud computing (See Exhibit 3). While they acknowledge that cloud computing is interesting in terms of potential to reduce IT costs, they harbour a suspicion that this might be just another fad from the IT services industry. As a result they feel it is important for the CIOs to take care of it, and there is no compelling need for them to get involved in the technology.

However, the senior executives with direct responsibility for technology say that cloud computing has the potential to generate a series of disruptions that will ripple out from the IT departments and ultimately transform many companies around the world. Respondents with direct responsibility for technologies point out that some technology forecasting companies' description of new and emerging technologies are not helpful to share the benefits that new technologies bring with the board members of their organisations. For example, the technology forecasting firm Gartner describes cloud computing as "location-independent resource pooling, accessibility through ubiquitous networks, on-demand self-service, rapid elasticity and pay-per-use pricing" - which seems to send the most C-level executive to sleep.

What seems to be missing in most technology focused discussions of cloud computing is the potential for new IT architectures and the evolution of the cloud into distinct layers of capabilities — from infrastructure to platform to application to business — each delivered "as-a-service." The survey shows that growth in public cloud will be uneven across industries, which represent opportunities for cloud service providers to seek out industries where they can effectively compete (See Exhibit 4). Results from the survey demonstrate that public cloud migration will be primarily driven by customer facing applications. Other operational applications are likely to migrate to private cloud or remain on premises.

Level of adoption of cloud solutions among organisations having expressed a need for them

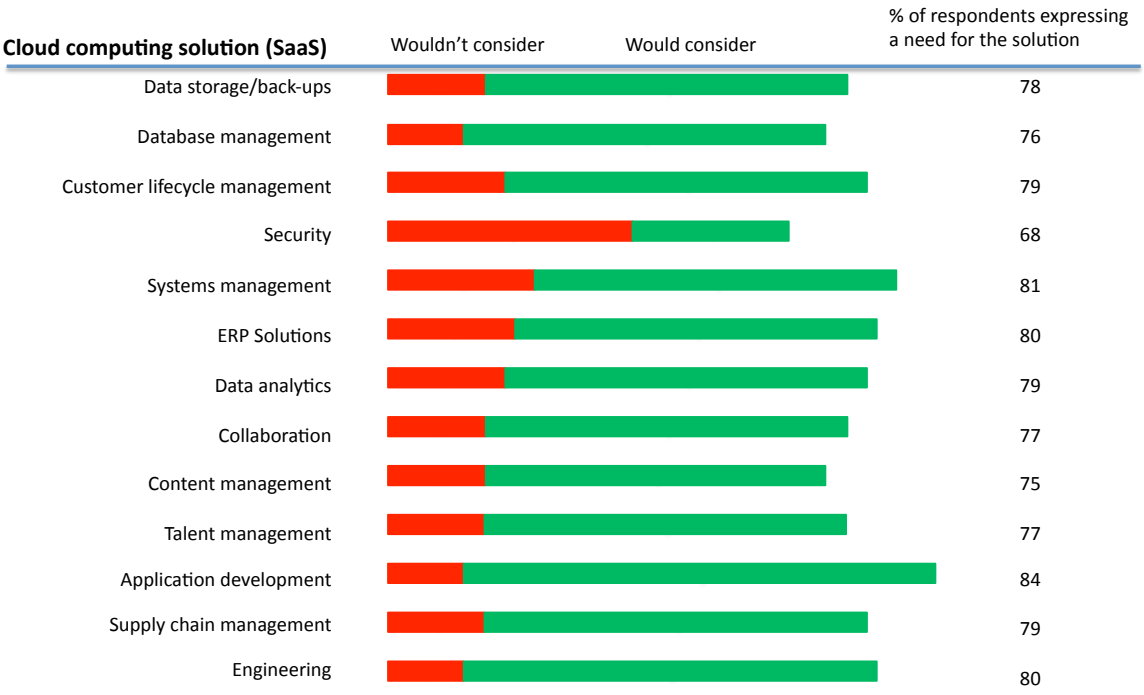


EXHIBIT 3

A board member of an insurance company told the survey that, "Rather than focus on how cloud can do what the IT already does — just cheaper or scaling faster — we're looking for cloud computing to do the things that the IT never has been able to do. So, we're focusing to the unmet needs and then looking for the disruptions that will sprout up across the vertically organised divisions." So, the questions that are in most senior executives' mind are: Are fears of data running amok for real or overblown? And, what will the consequences be for those companies who are trying to move to the cloud? When should companies consider cloud-based solutions and for which applications? How can CIOs generate competitive advantage from their cloud investments?

Growth will be uneven and companies will migrate to the cloud in some areas more than others

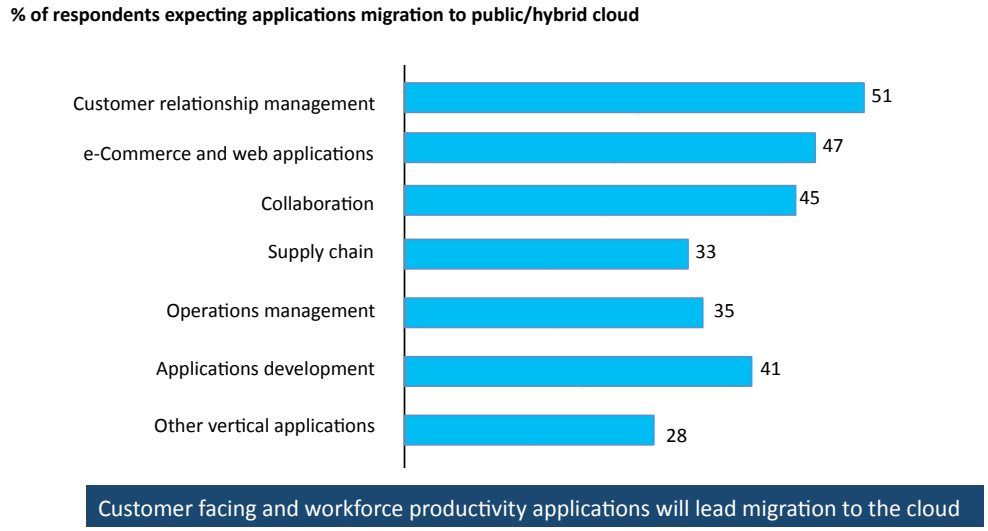


EXHIBIT 4

Information Technology Infrastructure Management

The demands placed on IT infrastructure teams by most companies have increased in scale and number. IT infrastructure leaders are expected to simultaneously improve the quality of the services they provide, keep up with technological advances, reduce errors and mishaps, simplify the customer and employee experience, rationalise technology assets, protect the company against cyber-security threats, embrace openness and social media and realise the benefits of digitisation - all while spending less. Results from the survey demonstrate that the complexity of maintaining, retrofitting and upgrading the company's installed base of IT assets is the biggest barrier to balancing business demand and IT supply (See Exhibit 5). Complexity costs more and it gets in the way whenever a business requests IT resources to tackle an urgent priority or provide an additional capability. Delays and the added effort that is needed to tackle this complexity can impose a 50%

Toughest barriers to upgrading IT infrastructure

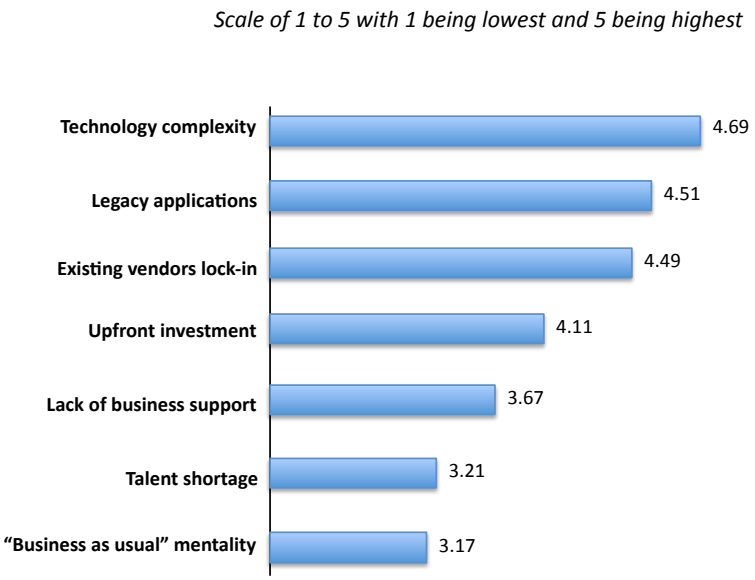


EXHIBIT 5

cost premium on a project and significantly limit what IT infrastructure team can actually deliver to the business in the end. The savings to be gained by reducing IT infrastructure complexity can be huge. For example, a global financial services company in the survey reported that reducing its application count by just 1% would enable the businesses to save over £28 million in Opex.

The responses from the survey demonstrate that in many organisations, over-engineered applications and IT silos have increased the operational transaction costs. Over 72% of the respondents say that work in their organisations is done using multiple devices instead of employees using their assigned workstations. Furtherxmore, this new way of working is creating complexities and increasing costs to companies. Only 29% respondents say they're using software tools that aim to bring applications from variety of organisational silos into a "Workspace" to help the end-users to get their jobs done. The same respondents also say that the absence of smart and industrial strength "Workspace" solutions in the marketplace has prompted many to build "in-house" solutions. A Workspace is described as a place on a desktop or a laptop or a tablet or a smart phone where a worker can use any application he/she needs to get the work done without having to know where that application is located. In other words, a Workspace aggregates variety of applications in a unified manner to an end-user that is easy to use. Four most common priorities cited by CIOs relate to end-user productivity tools, such as Workspace aggregation software, include:-

1. Superior functions/features;
2. Portability (i.e., capable of operating in any environment eliminating vendor's lock-in);
3. Connectibility/mobility; and
4. Usability.

Because of the ever increasing demand on the CIOs to deliver fast and senior business executives' focus on improving performance of their companies using productivity tools, about 67% of the respondents say that investment in Workspace aggregation solutions is a strategic one and they plan to procure it in the next 18 months (See Exhibit 6).

Important factors when selecting Workspace Aggregation software

Scale of 1 to 5 with 1 being lowest and 5 being highest

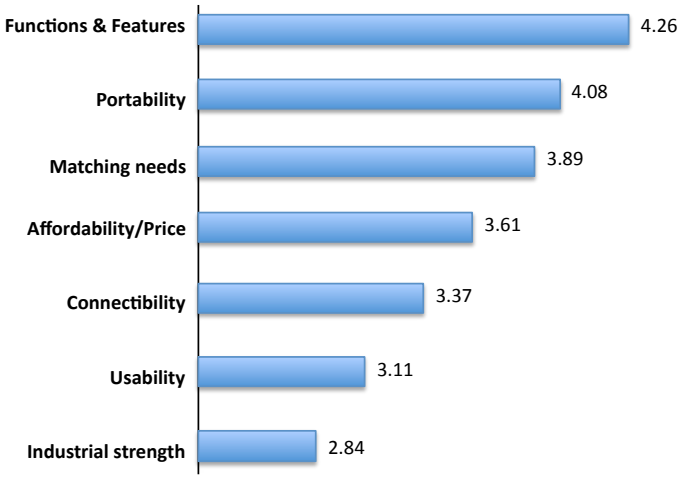


EXHIBIT 6

Today, IT has made doing business faster, smarter and more personalised, and many companies have discovered that keeping pace with the technology can be immensely challenging. Most CIOs are understandably torn: Should I invest in a promising new product? How can I afford to invest in the future and support my current technology base? Which technology providers am I going to partner with? Around 63% of the senior executives say their CIOs are faced with legacy IT suppliers, who were selected based on their size and panoply of offerings. They say these traditional IT suppliers used shotgun approach and promised to supply all kinds of products and services that instantly solve all kinds of customers' problems. The end-to-end and top-to-bottom transformation of the 21st century IT supplier selection is shaping the agenda of senior executives today, and will continue to do so for years to come. The

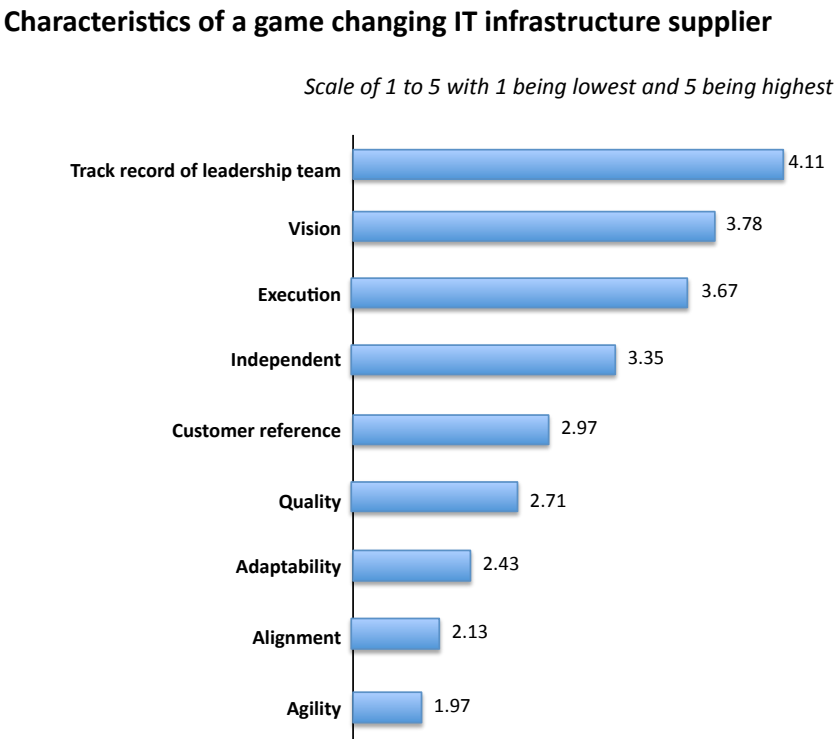


EXHIBIT 7

survey's responses suggest that companies' are looking to select IT suppliers, who are independent, bring economies of skills, agile, adaptable and align their interests with their clients. Respondents clearly indicate that the return from infrastructure technology investments is determined by the capabilities of technology suppliers and not by their size or past reputation (See Exhibit 7).

Information Security

Information security and privacy have become significant areas of concern over the past three years for senior executives who are all too aware that the security and integrity of customer, client and internal data are vulnerable to attack. Commitment to security awareness, initiatives, and processes is rapidly becoming an important part of the boardroom culture at the vast majority of companies because leaders know that security is fundamental to how they conduct business, manage their business relationships and maintain their reputation.

Responses suggest that most companies lack sufficient insight into the precise information assets they need protected and how to assign priorities to those assets. This means that IT security teams need to work with business leaders to better understand business risks across the entire value chain and to set appropriate priorities to the underlying information assets. The survey asked what actions a company could take that would have the most impact in reducing the risk associated with cyber-attacks and the responses are shown below (See Exhibit 8).

Big data also bring big security challenges in the forefront. Around 79% of respondents say that information security is not a technical issue - it is a management issue. Senior executives also accept that total security is neither technically feasible nor operationally deliverable. They also agree that security lapses are management failures more than technical failures. Therefore, an organisation must determine which information assets must be protected and the degree of protection. Leaving information security to the IT team will not yield the intended results.

The continued migration of applications online and on to the cloud has attracted more capable malevolent actors, including hacktivists seeking to score political points, national intelligence agencies looking for economic advantage and cyber-criminals looking to engage in fraudulent transactions. Despite these risks, companies' technology environments are more open and connected than ever before. 90% of respondents surveyed had "nascent" or "developing" ones. And, only 5% were rated "mature" (See Exhibit 9).

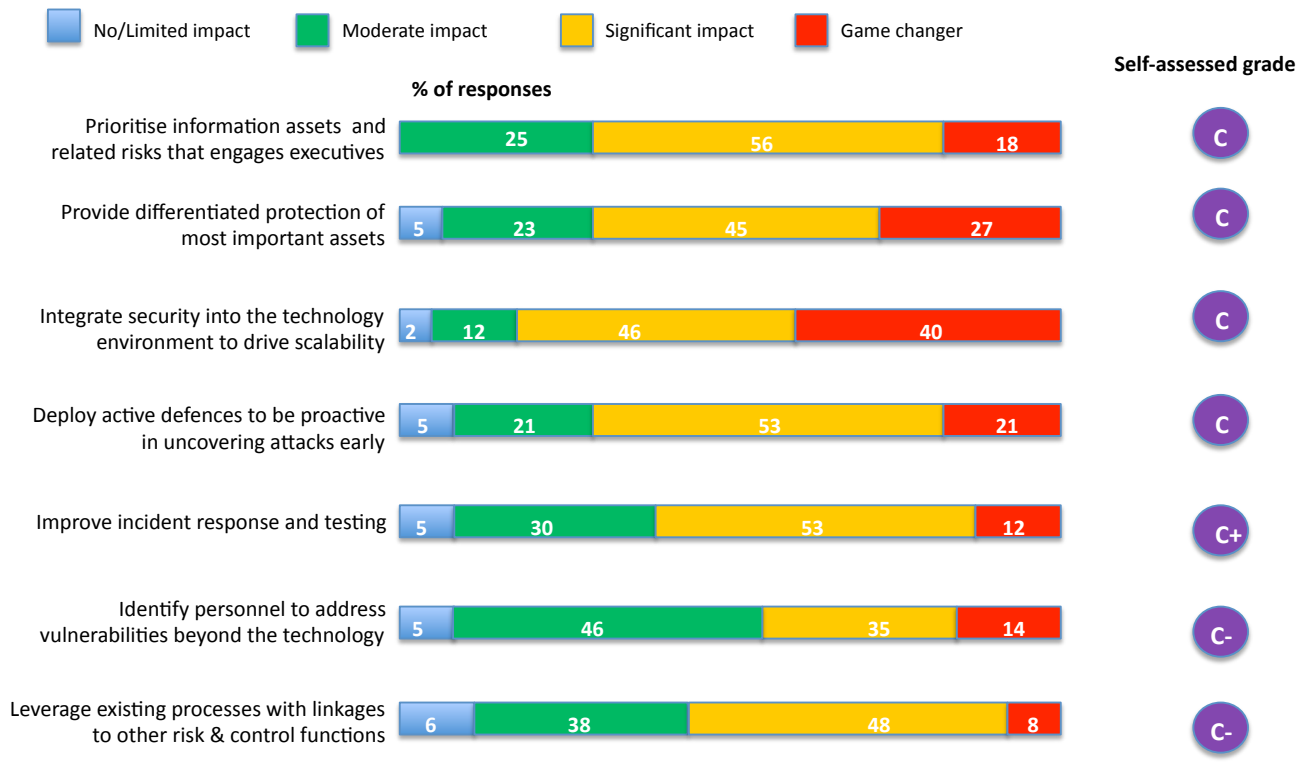


EXHIBIT 8

BYOD & mobile

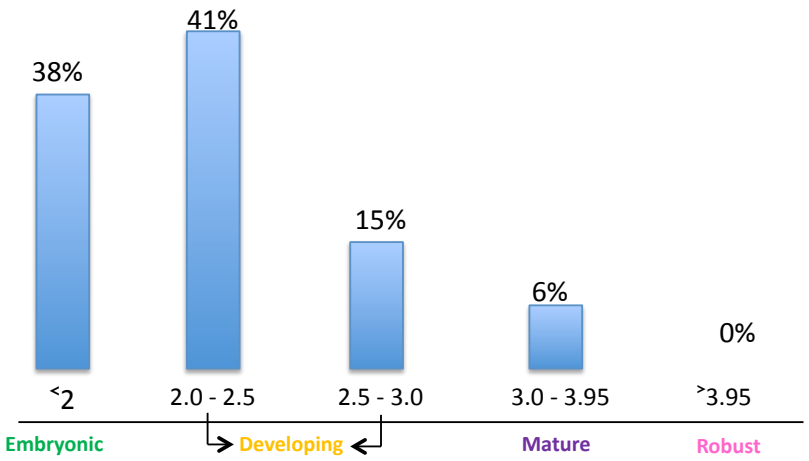
In the consumerisation of IT, BYOD or bring your own device, is a phrase that has become widely adopted to refer to employees who bring their own computing devices – such as smart-phones, laptops and tablets – to the workplace for use and connectivity on the corporate network. BYOD also highlights the CIO's opportunity to serve as the convergence point between employees and enterprise technologies. Historically, CIOs listened to business requirements and designed solutions to meet those needs. The survey responses indicate that the CIOs need to understand consumer technology and bring that insight in-house to help co-design requirements.

BYOD strategies have gained rapid popularity because they exploit an alignment of employee and company interests. Users no longer have to carry multiple devices and get more flexibility in selecting devices that meet their needs. Oganisations no longer have the problem of supporting and tracking small and relatively low-cost devices that are easily broken or lost. BYOD also raises a very different type of security concern for internal IT teams. Many companies that allow employees to use their own mobile devices at work implement a BYOD security policy that outlines the company's governance policy to help IT better manage these devices and ensure operational risks are managed prudently and network security is not compromised by employees using their own devices at work. The survey shows that 20% of large IT infrastructure functions enable users to access enterprise services via their personal devices, and 61% are either evaluating or implementing a BYOD strategy (See Exhibit 10).

In a few cases, infrastructure teams have seen savings per employee by no longer procuring devices and services that duplicate ones that the employees buy for personal use. Most of the senior executives report that they are at some stage of implementing BYOD to replace their corporate mobile phone support.

Productivity of Digital Workers

The labour productivity growth across the world has been sluggish. The latest data from OECD (Organisation for Economic Co-operation and Development) shows that productivity growth (measured by GDP per employed person) fell to 1.5% in 2013 from 1.8% in 2012. Some countries however, saw improvements in productivity last year. Such gains, though, can be a reflection of a faltering economy, in which fewer people are doing the work. In Spain, for example, productivity has improved since the financial crisis of 2007, but both GDP and employment have fallen (by 4.2% and 13.7%, respectively). Moreover, countries like Germany and the UK, which limited job losses during the recession, report stagnant productivity.



Robust
- Strong quantitative way of evaluation & mitigating security risks.
- Consistent governance model.
- Clearly identified accountability for securing each asset.
- Defined escalation path to top management.

Mature
- Quantitative way of evaluation & mitigating security risks.
- Consistent governance model and known point of accountability.
- Defined escalation path to top management.

Embryonic
- Best effort based evaluation and mitigation of security risks.
- No clearly established single point of accountability.

Developing
- Mostly qualitative way of evaluation & mitigating security risks.
- Consistent governance model and known point of accountability.

EXHIBIT 9

Productivity of workers is also subject to the business cycle: for example, when an economy starts to recover, companies often work their employees harder rather than hire new workers. This initially boosts productivity, but as companies take on more workers, productivity growth falls.

In the digital world with cloud initiatives that can improve efficiency under way, many IT infrastructure teams have started to focus on enabling end-user productivity. There are a number of reasons for this end-user productivity focus. Technology-savvy employees are increasingly using productivity tools effectively and are more confident about demanding tools that meet their needs. About 23% of companies surveyed, the most critical employees (e.g., sales, marketing, research and design) depend on end-user technology tools rather than traditional business applications to enhance their productivity.

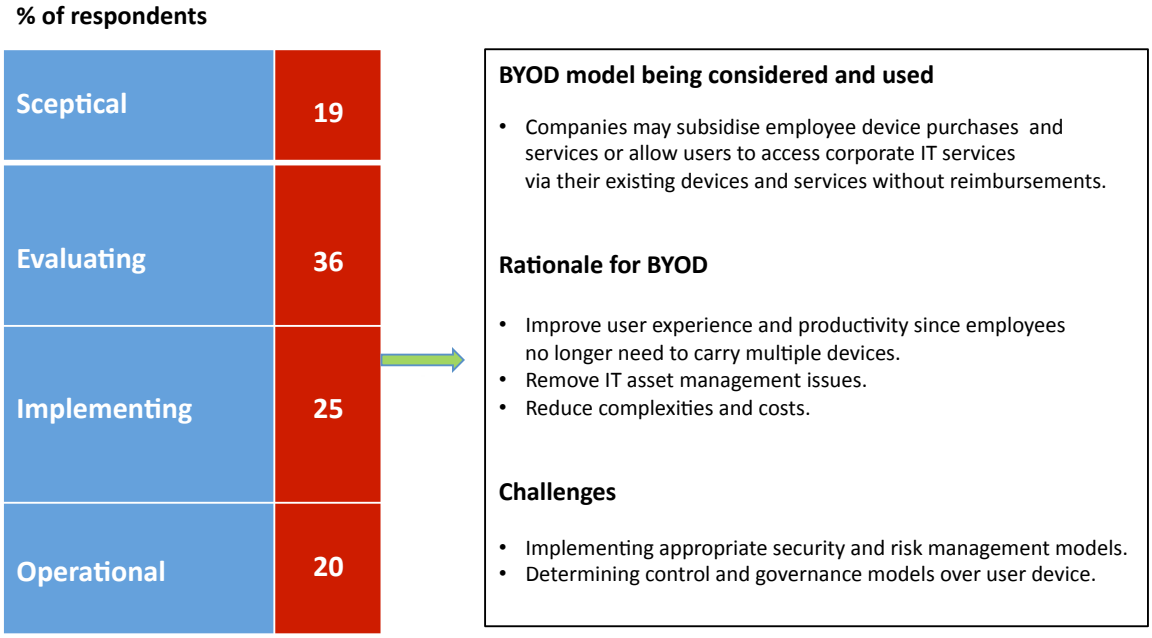


EXHIBIT 10

Despite the increasing focus on end-user productivity, there is much less consensus on what steps to take and what the value proposition will be. Some companies are implementing unified-communications platforms based on expectations that they will facilitate employee productivity. Others have not been able to make the business case to senior management. The path to end-user productivity is still evolving, and the survey shows that aggregating services using a Workspace to improve the productivity of digital workforce is a clear trend. At the development phase, productivity tools have reached maturity. In other phases, particularly the customer insight and idea generation, companies are piloting with new marketing and customer insight tools. Finally, companies are planning to invest significantly in productivity improvement tools, such as Workspace management tools, in the operational phase that have game changing potential (See Exhibit 11).

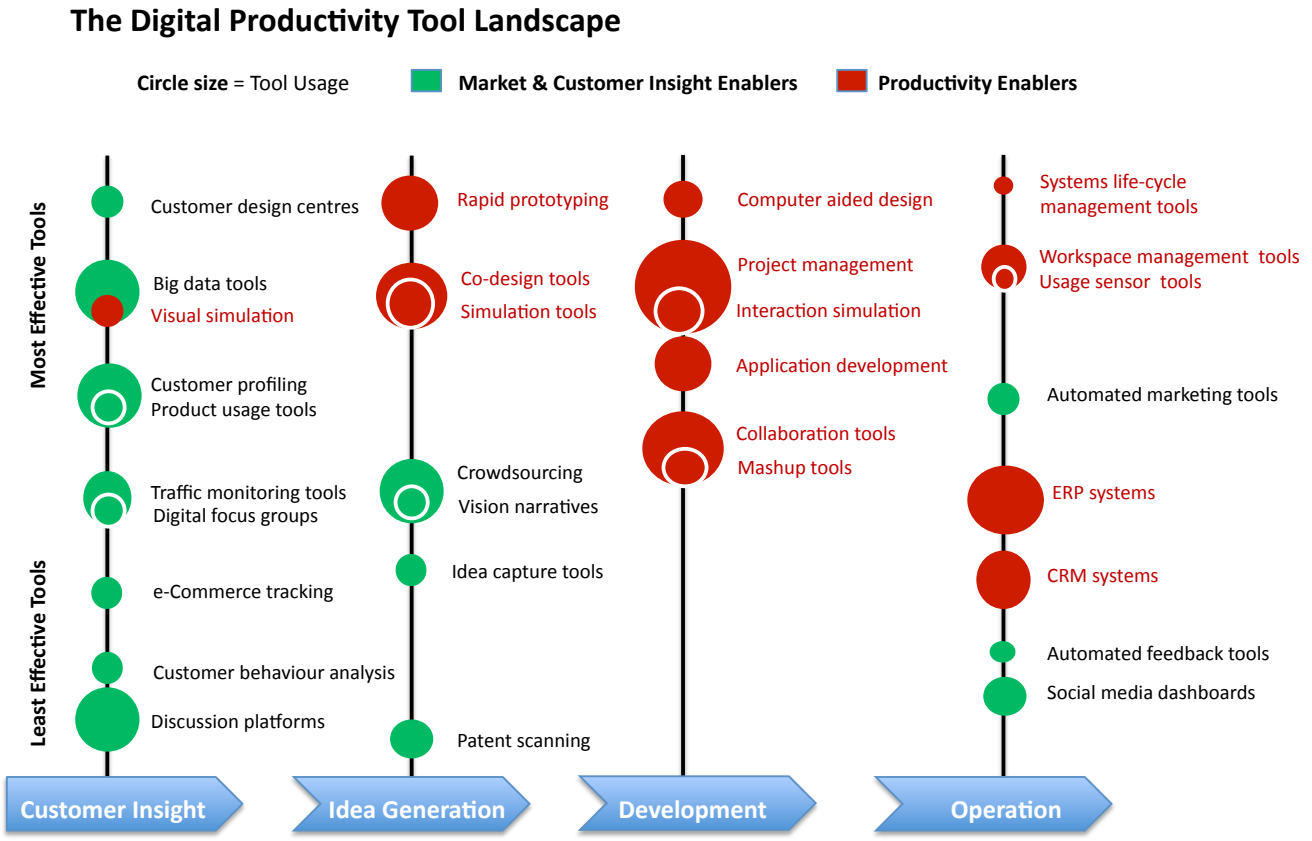


EXHIBIT 11

About the author

Sukhendu Pal is the CEO & Managing Partner of Sirius & Company where Dr. Gina Sum is a member of the leadership team.