The startup gene: a way forward
Enterprise IT trends and investments 2016
Contents
Foreword.......................... 4
1. Quick recap – what we saw last year........ 7
2. Changing lanes – the road ahead............. 9
3. IT drivers and priorities for CIOs ............ 15
4. Embedding a start-up gene in a CIO .......... 19
5. Survey approach and analysis............. 25
CIO KLUB

As we enter the ninth year of existence of the CIO Association (CIO KLUB), it gives us immense pleasure to present the eight annual survey report on Enterprise IT trends and investments. The CIO KLUB, an initiative of the CIO Association, is one of the largest associations of chief information officers (CIOs) in India. The Enterprise IT investment survey was initiated by the CIO KLUB in 2009 in association with EY. This year we have garnered the highest ever representative response from all over India, while at the same time maintaining all possible confidentiality measures of the member responses, which were only accessed by the EY team for the aggregate survey analysis.

The objective of this survey is to provide insights to CIOs on technology priorities. We hope that the findings of this survey will help CIOs benchmark their respective organization’s technology road map with that of the peers, enabling them to keep their business ahead of times.

EY, our knowledge partner, assisted the CIO KLUB in preparing the relevant questionnaire, collating responses and analyzing the responses. Being an independent professional services firm with wide experience in advisory, EY LLP was uniquely positioned to provide this assistance. Undoubtedly, the CIO KLUB-EY LLP survey report will be a useful and reliable document with respect to Indian enterprises.

We are glad to see overwhelming participation from the KLUB members. We express our sincere thanks to all the members for their support. We also express our sincere gratitude to the team from EY LLP, which has been working on this survey for the last three months and supporting CIO KLUB for the last eight years.
CIOs are never questioned for bringing in an established ERP, but they are always challenged or asked to justify buying products from small companies or working with small service players — the startups. However, for the first time in our careers, we now see CIOs being questioned by their CEOs and business leaders for NOT working closely with startups.

We foresee that soon, CEOs and business leaders will expect CIOs to imbibe the qualities of a startup and embed it in their organization’s DNA to achieve the true state of a digital-driven innovative organization. This year, majority of the organizations saw tremendous value in a close association with startups for solving their business problems.

CIOs have always led the initiative of bringing in disruptive technologies, thus reducing operating costs for the company. We now see that they have the additional responsibility of increasing the company’s income. By gaining the startup mindset of being performance-driven, we will soon be seeing the transformation of a CIO from being a third-party mediator to a ‘revenue generating CIO’.

We are pleased to present the results of the Enterprise IT Trends and Investment Survey 2016 — insights into various IT initiatives taken by CIOs and their proposed investment plans. It has been a privilege being associated with the CIO KLUB as knowledge partners for this survey for eight years. The survey aims to capture key IT priorities and initiatives taken by organizations across various sectors. We hope you will find our survey report both interesting and useful.

We would like to extend our warm thanks to all participating CIOs for taking out the time to share their views. We hope that this survey report will be a valuable resource for IT professionals and organizations to understand the trends in India. We thank the CIO KLUB for giving us an opportunity to be a part of this, and reiterate our commitment to work together and jointly to publish this report every year.
The startup gene: a way forward

Social 1.0
Mobility 1.0
Analytics 1.0
Cloud 1.0

Social 2.0
Mobility 2.0
Analytics 2.0
Cloud 2.0

Social 3.0
Mobility 3.0
Analytics 3.0
Cloud 3.0

Future of IT

Cyber defence
gas station

Virtualization

Monetary loss

Brand damage

Legal expense

Impact of Cyber Breach

Legend
AES: Advanced Encryption Standard
APT: Advanced Persistent Threat
BYOD: Bring your own device
CRM: Customer relationship management
DLP: Data Leakage Prevention
IDS: Intrusion Detection System
SIEM: Security information and event management
SMAC: Social Mobility Analytics and Cloud
SOC: Security Operations Centre

One wrong throw of the die can take you off your planned route.

Periodically refill your cyber defence program to be better prepared against cyber attack.

With the evolution of IT, your outsourcing partner holds a vital key to your future success.

RULES: Whichever sector you belong to, SMAC will impact you.

You are here

Journey to SMAC 3.0

3D Printing

Universal Remote

Virtual reality

Everything as a service

Communications
Network
Security

Future

Managed services / Outsourcing

Impact of Cyber Breach

WILD CARD
Quick recap – what we saw last year

The 2015 survey had revealed some fascinating trends. The report, titled “SMAC 3.0: digital is here,” covered the journey of the social, media, analytics and cloud (SMAC) areas, which have been the latest buzzwords amongst IT strategists. The results clearly highlighted that the direction of the respondents’ current and future plans was in alignment with the “Digital India” story. The report summarized the journey of the CIO from the predominant SMAC technologies in 2010 (SMAC 1.0), covering the trends observed in the recent past (SMAC 2.0), to the futuristic ones, which will define the ever-increasing role of IT in organizations (SMAC 3.0).

The report detailed the individual aspects of SMAC technologies and depicted how each of them had evolved over the years to meet the ever-increasing demands for innovation. We envisioned that CIOs were implementing self-service technologies to allow business users to get more control over their service needs – thus imparting a Do It Yourself (DIY) attitude over the earlier Do It For Me (DIFM) attitude.

The survey also highlighted cybersecurity as a board-level agenda. It stated that it was difficult to achieve ROI by investing in further prevention technologies. However, detection technologies would help organizations detect attacks, respond faster and minimize the damage.
The 2015 survey showed that organizations had crossed the SMAC 2.0 barrier and were rapidly moving toward SMAC 3.0 (where digital triumphs with innovation); however, the priorities have shifted since the last year. The survey reveals that companies have increased focus on mobility as compared to social, resulting in a change of priority from S-M-A-C to M-A-C-S.

Companies are embracing new technologies at a faster pace than expected. Trends show that companies are ready to spend up to 30% of their total IT budget on SMAC technologies. While each of these technologies is a giant in itself, CIOs in India are prioritizing these implementations in their organizations based on various factors.

**SMAC to MACS**

With the convergence of digital solutions in the past year, organizations are inclined to capitalize on these new developments. Mobile workspaces are a reality these days, with employees carrying out their business activities from anywhere, even from their handheld devices. Our survey has revealed that companies have prioritized mobility as the first point for digitalization. Analytics is a close second on the CIO’s priority list. Trends have revealed that analytics is a core function for CIOs and a striking 51% of CIOs would want to keep the analytics function in-house rather than getting the activities outsourced. One reason for this is that companies feel that their internal teams understand their business and their captured data much better than outsiders.

After analytics, cloud – being one the most matured technologies out of the four – is next on the CIOs’ priority list. Surprisingly, social made it last in the list. Considering the huge buzz around leveraging social platforms to enhance business, it seems that the technology still needs to evolve further before companies can successfully adopt it. Another possibility for exploring social at later stages could be that CIOs are showing an inclination to being more process-driven than expanding their markets (concentrating first on internal building and later on external building).
IoT and cyber

Certain aspects of the IT roadmap are becoming clearer. For example, 81% of the respondents state that the most promising futuristic technology that will gain momentum in the next five years would be Internet-of-Things (IoT). While IoT is still considered to be a technology of the future, the market is already swarming with companies offering products fuelled by the technology. Classic example includes wearable technology, which essentially uses the power of IoT to carry out various operational activities in manufacturing industries. The following illustration depicts the most promising tech areas according to the respondents:

Cyber security continues to be important and remains a board-level agenda this year as well. More than one-fourth of the respondents stated that cyber threat is the “one” issue that gives CIOs sleepless nights. While earlier cyber threats were a detour toward the journey to SMAC 3.0, this year it seems that cybersecurity runs a parallel track toward the future journey. This thesis is supported by the fact that almost 48% of the respondents have mentioned that “strengthening cyber detection and resilience capabilities” is the key IT priority for their organization.

The startup gene: a way forward

10
With the rise in the instances of cyber-attacks in the country, CIOs are facing a tough time defending against such attacks.

**Sectorwise % spends on SMAC technology**

### Infrastructure, Industrial and Consumer

<table>
<thead>
<tr>
<th>% spends</th>
<th>1% - 5%</th>
<th>6% - 10%</th>
<th>11% - 20%</th>
<th>21% - 30%</th>
<th>More than 30%</th>
<th>No immediate spends planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>23%</td>
<td>21%</td>
<td>22%</td>
<td>13%</td>
<td>8%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>

### Technology, Media & Entertainment and Telecommunications

<table>
<thead>
<tr>
<th>% spends</th>
<th>1% - 5%</th>
<th>6% - 10%</th>
<th>11% - 20%</th>
<th>21% - 30%</th>
<th>More than 30%</th>
<th>No immediate spends planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>28%</td>
<td>28%</td>
<td>5%</td>
<td>7%</td>
<td>12%</td>
<td></td>
</tr>
</tbody>
</table>

### Financial Services

<table>
<thead>
<tr>
<th>% spends</th>
<th>1% - 5%</th>
<th>6% - 10%</th>
<th>11% - 20%</th>
<th>21% - 30%</th>
<th>More than 30%</th>
<th>No immediate spends planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>32%</td>
<td>24%</td>
<td>19%</td>
<td>16%</td>
<td>3%</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>
Digital future

Convergence of digital technologies — mobility, analytics, cloud and social — is the talk of the town; however, seldom is “digital” as a word understood by many: people create their own meanings of “digital.” We asked the survey participants to define what actions they are planning to undertake to transform their organization into digital. The results are encouraging and confirm that digital is not just about digitization or deploying mobility or social technologies. It is all of these put together. It is about making a difference across the organization and the extended enterprise. Our survey results have revealed these six facets of a digital organization. Organizations can choose a facet relevant to the business but EY believes all or most of these facets are critical for any organization aiming to take on the digital journey.

1. Establishing e-enabled business models
   Use of online marketplaces, networking, services and mobility solutions to improve sales and profitability

2. Aligning customer decision psyche
   Aligning organizational priorities with the shift in consumer behaviour due to consumerization, and shifts in content, communications and devices.

3. Improving customer engagement index
   Improving customer engagement and retention by using omni channel interactive platforms

4. Automating customer service delivery
   Use of social, mobility, cloud and other disruptive technologies to enhance customer experience and automate customer interaction process

5. Using analytics for decision making
   Use of statistical, predictive analytics using big data platforms to improve speed, accuracy and timeliness of decision making

6. Digitizing IT infra and operations
   Use of cloud technologies, automating IT service processes for make IT agile and nimble
The survey results show that for Indian CIOs, establishing innovative e-enabled business models and digitizing IT infrastructure are the main priorities for the coming year.
The survey respondents are unanimous in selecting the six facets of digital as a way forward; however, individual sectors do show unique propositions relevant to those sectors. For instance, financial services organizations have a much larger focus on the use of analytics for improving decision making – 70% of the respondents from the financial services sector confirm this fact. On the other hand, technology- and service-oriented sectors are focused on automating customer service delivery, as suggested by 57% of the respondents from the technology, media and entertainment, telecom and services sectors. Respondents from the manufacturing sector are more focused on improving IT service delivery by digitizing IT infrastructure and operations.

Considering the late evolution of the manufacturing sector on the digital journey, it is apt that 58% of the respondents from within the manufacturing sector will focus on the digitization aspect of digital. It is interesting to note that while organizations strive to be truly digital, understanding customer behavior and aligning their strategy with the changing behavior are not yet on the radars of the organizations that the respondents belonged to.
a) IT investments and spends

For 64% of the respondents, reducing operating costs is one of the key IT priorities. Remarkably, 76% have stated that developing innovative business solutions is their key priority. There is an overlap of 42% who believe that innovation should be carried out along with reducing OPEX.

64% Reducing OPEX

76% Implementing innovation

To achieve the balance that 42% respondents are musing on, targeted innovation is the call of the day. Companies have shown intrigue in IoT and cloud solutions. Additionally, CIOs who have sleepless nights over budget constraints look to startups to help them in their pursuits to develop their solutions. This is where solutions such as cloud can fulfil their objectives.

At the same time, while companies are exploiting their risk appetite, 26% companies fear cyber threats. Thus, CIOs must be prudent during their expansion with new solutions and reducing OPEX by adopting supporting technologies such as Monitoring of Information Security Threats (MIST).

Companies are implementing innovative MACS solutions, with 45% of the respondents having allocated up to one-tenth of their annual IT budget on them, while 36% have allocated approximately one-fourth of their budget on MACS.
In line with innovation, companies can also assess traditional methods to drive IT investments and spends. Five important questions that aid such assessments are:

1. Who are our “good” customers and how will they be affected?
2. What are we doing about “redundant contacts”?
3. How do our proposed investments align with important touch points and lifecycle events?
4. How are we reducing the anxiety and stress our best customers are experiencing?
5. How effectively do we listen and respond to customers?

b) Developing innovative business solutions to expand services

Innovation is not optional. It is a must. The acceleration of change and scale of disruption from data, digital technologies, globalization and other forces mean that organizations have to evolve to survive. The way companies create value for their stakeholders needs to evolve accordingly.

The key IT priority for this year for 76% of the respondents is developing innovative business solutions. In particular, all the companies whose revenue in the past year was between INR50 billion and INR100 billion responded resolutely to this fact. Of these respondents, 24% primarily belonged to the manufacturing sector, followed by 14% from technology and 13% from retail and consumer products.

Below are some of the areas to indicate the evolution of manufacturing through innovation.

**Robotics**

Recent innovations in robotics have been in the field of inventory management. Robots are able to perform countless duties in the warehouse. Startups such as Grey Orange Robotics are doing well by tying up with e-commerce companies such as Flipkart and so are many other inventory management systems. Another area where robotics is doing miracles is medicine.

**Artificial intelligence (AI)**

Artificial Intelligence is being leveraged in everything around us today. Facebook and Google Photos use AI for image recognition and identifying people/places in it. Driverless cars are on the horizon, and Slack and other conversational platforms such as Telegram are giving rise to conversation-based AI chat bots. We are not too far away from a time where AI will aid us in every task we do.

**3D printing**

3D printing is a slow runner compared to artificial intelligence and robotics. Although we can now print on 200 different materials, the technology is still expensive for consumers. However, there has been a recent growth in the use of 3D printing in medicine, which shows great potential.
c) Cyber detection and resilience capabilities

In today’s world of “always on” technology and inadequate awareness around security among users, cyber attacks are no longer a matter of “if” but “when.” Organizations have no choice but to operate in this evolving environment; therefore, inevitably there is a growing focus within governments and the media on what is going wrong where cyberspace meets the physical world. In EY’s Global Information Security Survey (GISS), 88% of the respondents do not believe that their information security fully meets the organization’s needs.

In the current scenario, a few questions for your organization to consider should be:

1. Do you really have confidence in your understanding of the threats/vulnerabilities in the digital world?

2. Have you done the work and thinking required to determine how that threat landscape applies to your organization and strategy, and prioritized cybersecurity measures around this?

3. Do you know how to set your risk appetite to determine the acceptable and unacceptable loss and harm from potential incidents as part of developing your cyber breach response management program?

According to GISS, the top two vulnerabilities are:

- Careless or unaware employees
- Outdated information security controls or architecture

According to GISS, the top two threats today are:

- Phishing
- Malware

These days, a cyber breach can be very subtle. Several incidents can be happening at the same time – e.g., advanced social engineering (spear-phishing and watering-hole attacks), sophisticated six-month intelligence gathering and full knowledge of enterprise weaknesses – people, process and technology etc.

---

1. EY Global Information Security Survey 2015
The shift to Active Defense

Security professionals cannot rely on the integrity of the network’s perimeter and must operate under the assumption that undetected malicious activity is present nearly all the time. Active Defense is a deliberately planned and continuously executed campaign to identify and help eradicate hidden attackers and defeat likely threat scenarios targeting an organization’s most critical assets. Most security operations teams lack the “detective” capability, and this is where Active Defense can enhance organizational effectiveness. By employing a deliberate operational cycle to plan, execute and review intelligence-driven activities to help implement targeted countermeasures, fortify defenses and hunt intruders, Active Defense practitioners provide organizations with the capability to identify and help eradicate latent attackers that circumvent traditional security monitoring and target intellectual property and business systems.

Need for cyber insurance

Data is one the most important assets of any organization and yet it is not covered by standard property insurance policies. With the constant rise in cyber attacks every day, how does any organization manage the risk related to a data breach caused by a cyber attack? Cyber-liability insurance policies now cover information security and privacy liability, regulatory defense and penalties, website media content and liabilities, privacy notification and crisis management expenses, theft of assets and business interruptions (these are indicative areas).
a) Alignment toward DIFM – achieving progress with the help of the bold

Last year, most of the organizations had reached a point of SMAC 2.0 implementation. With its success and emphasis on its benefits, companies want to rapidly adopt MACS 3.0. The importance of data, analytics, trends, cost and connectivity pushes companies to be more competitive and efficient than before. To reach this point, though, companies need to invest correctly to ensure that change itself is not overwhelming.

To embrace change and technologies in a nimble fashion, two options exist:

► Building the capability in-house, or DIY: It is usually the more intensive option and includes hiring and/or training, initiating development, testing and deployment. This results in time-intensive activities and a homebrew solution.

► Taking advantage of people in the field/ experts, or DIFM: Startups founded to capitalize on technological changes, or managed services companies building on their established knowledge mines, can be vetted for competence and contracted for implementation.

It was observed that companies had skewed preferences toward a DIFM approach. However, a whopping 49% of the respondents preferred using a combinative approach: implementation using DIFM but managing it themselves (DIY).

With such statistics, it is no surprise that companies prefer to outsource. Take, for example, Walt Disney World in Orlando, Florida, which, in January, outsourced its entire IT division. Such cases help drive down expenditure but come at a higher cost. Eventually, the role of a CIO would be more managerial than driving change in the company.

DIFM companies work by having the top talent servicing their clients under tight operational norms. The allure of utilizing their capabilities is high. Further put, companies have shown a willingness to partner with startups in their pursuits. An astounding 50% of the companies responded to working with them in their DIFM efforts (although financial service companies were a bit more conservative with their assessments). This is emphasized by the fact that only 13% of the respondents prefer hiring required knowledge sets.
Employing startups ensures that work is done in an agile and innovative manner. This saves cost, helps adopt the latest in technology and becomes a disruptive force in the industry.

However, to be more effective CIOs, should inculcate these values in their own firms to be a reckoning factor in their field.

The only way to adapt to change is to take the risk of adopting it. By implementing start-up practices, CIOs can ensure that their projects are driven to closure quickly, OPEX is managed and the product is effectively managed by the company after using a combinative approach.

The DIY trend of Generation X has given way to forming established brands in a booming economy full of opportunity — becoming experts in their chosen fields. This enables the companies to hire such established entities for their DIFM ventures. However, by learning from the ones that see things differently, the ones that challenge the status quo, CIOs can adapt quicker and ensure the company’s future in the face of change.

b) Scaling up revenues – the eternal dilemma

It is often difficult to assess the value of IT in a company. Categorized as a support function and billed as a traditional cost center, IT’s importance in the basic operations of a company is often underplayed. Without an IT function (whether it be in-house or outsourced), a company cannot function efficiently in the modern century.

The practices we denote to IT evaluation date back to when IT was an evolving field – enhancing daily lives instead of driving them. Thus, a hard path has eschewed for the department to push the boundary of the capabilities it can achieve.

However, only 9% of the respondents had an IT budget allocation greater than 5% of the total revenue of the company. A majority of the CIOs – 21% – received around 0.8% of total revenue. This budget is accounted for overhead costs, total man-hours, procurement, projects and expenses.

To showcase the efficiency of the department, a common tool used for other revenue-generating centers is to analyze activity-based budget costs. A time-tested method to provide an accurate descriptor of all functions detailed in the department, such analyses showcase the strong and weak points in all processes. By undertaking this method, we open the possibility of using innovation to enhance our strengths and shore up our gaps.

Once direct avenues of minimizing costs are accomplished – reducing OPEX and increasing efficiency – and activities and processes are benchmarked, the remaining avenues to drive down costs to increase revenues include driving change.

For 47% of the respondents in the telecommunications, media and technology (TMT) sector, cloud technology was the topmost implementation priority. In comparison, the rest of the sectors (financial sector [FS], and infrastructure, industry and consumer products [IIC]) rated mobility as their priority.
Industry Prioritization of Social, Mobility, Analytics and Cloud Technology, Media & Entertainment and Telecommunications

<table>
<thead>
<tr>
<th>Priority</th>
<th>Cloud</th>
<th>Mobility</th>
<th>Analytics</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority 01</td>
<td>47%</td>
<td>27%</td>
<td>20%</td>
<td>7%</td>
</tr>
<tr>
<td>Priority 02</td>
<td>23%</td>
<td>42%</td>
<td>23%</td>
<td>12%</td>
</tr>
<tr>
<td>Priority 03</td>
<td>15%</td>
<td>22%</td>
<td>38%</td>
<td>25%</td>
</tr>
<tr>
<td>Priority 04</td>
<td>15%</td>
<td>10%</td>
<td>18%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Infrastructure industrial and consumer and Financial Services

<table>
<thead>
<tr>
<th>Priority</th>
<th>Cloud</th>
<th>Mobility</th>
<th>Analytics</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority 01</td>
<td>47%</td>
<td>34%</td>
<td>13%</td>
<td>6%</td>
</tr>
<tr>
<td>Priority 02</td>
<td>29%</td>
<td>40%</td>
<td>26%</td>
<td>5%</td>
</tr>
<tr>
<td>Priority 03</td>
<td>21%</td>
<td>18%</td>
<td>38%</td>
<td>23%</td>
</tr>
<tr>
<td>Priority 04</td>
<td>4%</td>
<td>8%</td>
<td>23%</td>
<td>66%</td>
</tr>
</tbody>
</table>
The future of IT — MACS — allows innovation through a variety of ways. An astounding 81% of all respondents voted the IoT as the most popular way to achieve these pursuits. For companies in the aforementioned sectors, an increase in profits through their polled responses can be achieved by utilizing the benefits offered by these technologies.

**Mobility**

For other sectors, mobility allows savings through cost reductions, better accessibility, and better connectivity for employees and customers. Communication software offers cost reductions by reducing travel, removing older communication technology and improving international cohesiveness. Non-technical benefits include more time to undertake other activities that would otherwise be locked down by travel or collaboration, less erroneous faults due to enhanced comradeship, cost savings in resources and faster provision of information, with supporting company culture changes.

**Cloud**

For the TMT sector, the priority to drive growth revolves around heading beyond their environment. The cloud reduces CAPEX allocation, freeing it up for other innovation pursuits under MACS, saves years of maintenance and upgrade costs, lowers OPEX, supports economies of scales, causes much easier Business Continuity planning (BCPs), and consolidates information to facilitate easier analytics and data optimization.

With these benefits, implementing just the top priority skews the balance of cost vs. revenue toward the profitable side. By leveraging the benefits included in MACS and utilizing startups to undertake activities using cutting-edge technology (such as IoT, wearable technology, 3D-printing and high speed internet), while maintaining an activity-based view of budget allocation, the concern of converting IT into a revenue center could be a worry of the past.

c) **Skill management — retaining the right talent**

In recent years, the startup ecosystem has seen a phenomenal growth all around the world. India has been identified as the world’s fastest growing startup ecosystem due to factors such as massive funding, disruptive innovations and a rapidly increasing domestic market. Hence, it is certainly not a passing trend, but a revolution. Agility and competitive pricing are the biggest advantages offered by startups, which make a huge difference in the current hyper-competitive world. As a result, there is a greater preference to working with a startup as opposed to working with an established supplier. Survey results reveal a similar picture: 50% of the respondents believe that startups have a lot to offer in terms of enhanced skillsets, newer technologies and reduced costs.
However, finding the right skill is the biggest challenge faced by startups today. This is further coupled with stability concerns and budget constraints. Another challenge that continues to thwart startups is finding the talent with the desired skills for the middle and senior level management positions. In addition, poor business planning, funding and competition are other threats that act as a deterrent for startups in their bid to scale up.

Companies want to work with startups for the niche skills and innovation that they bring to the table. However, hiring startups may potentially dilute the role of internal employees and not provide them the learning opportunity they would want to seek. This may lead to employee stagnation in terms of skills or eventual separation. Hence, companies want to train and upskill their employees to enable them to add the same value to the organization that a startup would. The survey too showcases that of all the companies that want to hire startups, 70% want to encourage their employees to learn more on their own and provide the necessary support.

As a consequence, companies face an interesting dilemma in the current scenario. On the one hand, companies want their employees to become experts at new skills/technologies. On the other hand, missing out on leveraging startups might mean competitors getting hold of new disruptive innovations, which may well be the differentiator.

Hence, in the context of technological products/solution implementations, of companies that want to hire startups, 57% have opted for a combinative approach, i.e., implement the product/solution from the vendor and then manage the completed solution themselves.

As a result, companies can still be cutting edge by building innovative solutions with the help of startups while also giving enough time to their employees for enhancing their skill sets and retaining solution/market competence.
d) Need for increase in risk appetite/working closely with startups

The biggest risk is not taking one

Taking risk with technology can be an unpredictable move for any organization. However, not taking any risks at all can leave the enterprise lagging and being identified as “not innovative” as competitors move ahead. If you do not act today, someone else will tomorrow.

It is often seen that most innovative breakthroughs come from startups; they are hungry, which drives them to be more creative. Newness and smallness are the two main characteristics that enhance their appeal: newness fosters a sense of endless possibilities, and smallness tends to nurture a shared accountability. This leads to an enhanced degree of focus, which yields agility and innovation. Startups also value disruption.

Startups are more flexible with price and product attributes. It is easier to negotiate with startups than with a bigger player. They are also known to be nimble and responsive to the needs of the customer. Implementations too take considerably less time. Furthermore, with startups there is much tighter interaction.

As a result, companies prefer working with startups as part of their innovative strategy because their own corporative nature makes internal innovation rather difficult. The ability to take risks that larger organizations believe they cannot afford is what makes startups a valuable proposition and a prospective partner. Being a risk taker is often misconstrued as being reckless. However startups are viewing the risk as a positive, as a challenge to overcome the unknown, and hitting the big return.

A risk-taking mentality is something that could be of great help to the CIOs of today. While startups strive on the seed fund of investors, mature organizations have the financial backing from the management to undertake certain level of risks. CIOs could leverage this as a backup strategy for undertaking risk-taking ventures. While calculative risks would be the way forward, the path of the CIO could be well transformed from a third-party mediator to a focus-driven leader, who can take risks, leverage existing skillsets and be a true “revenue-generating CIO” for the organization.
The eighth Enterprise IT Trends and Investment Survey, brought to you by EY on behalf of the CIO KLUB, gauges current investment patterns, IT priorities and upcoming investment plans of organizations.

This year’s survey was open for a period of three weeks in the month of March 2016 and involved participation from 318 respondents from various organizations across major industries. The questionnaire used in this survey was designed to gather relevant information about IT investments, initiatives, priorities and technologies domains. This survey was conducted through a secure online tool with a specific URL that was mailed to designated members of the CIO KLUB, along with instructions for completing the survey.

EY downloaded the results of the survey to conduct an analysis and used cross tabs to identify the patterns of various IT domains across specific industries, and the size and type of industry. Responses of 294 out of 318 respondents – those who completed the survey – were considered as complete and used for the analysis. Partial responses were ignored for the purpose of this analysis.

**Sector wise count of responses**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Response percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>7%</td>
</tr>
<tr>
<td>Education, Government, Public Sector and Non-profit</td>
<td>13%</td>
</tr>
<tr>
<td>Financial services</td>
<td>2%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>8%</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>7%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>25%</td>
</tr>
<tr>
<td>Media &amp; Entertainment</td>
<td>4%</td>
</tr>
<tr>
<td>Retail and Consumer Products</td>
<td>10%</td>
</tr>
<tr>
<td>Services</td>
<td>5%</td>
</tr>
<tr>
<td>Technology</td>
<td>14%</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>2%</td>
</tr>
<tr>
<td>Transportation &amp; Logistics</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

**What was the revenue of your organisation in the past year?**

- 29% < INR 5000 Mn
- 29% Between INR 5000 Mn to INR 10000 Mn
- 24% Between INR 10000 Mn to INR 50000 Mn
- 8% Between INR 50000 Mn to INR 100000 Mn
- 10% Above INR 100000 Mn
About the CIO KLUB

CIOs of Indian enterprises have formed the CIO KLUB, registered as CIO Association. CIO Association (CIO KLUB) is a non-profit and the largest Association of CIOs in India. The CIO KLUB is governed by a Governing Body and a National Executive Council, and each chapter has a managing committee to drive the CIO KLUB objective nationally.

CIO KLUB has grown truly national with six working chapters in India’s most strategic cities (Mumbai, Delhi-NCR, Bangalore, Pune, Chennai and Coimbatore). We have now grown to 1,200 members across India.

The key objectives of the CIO KLUB are to share experience, enhance knowledge and explore business solutions by leveraging the collective wisdom of the registered member CIOs. The current registered members represent leading Indian business houses and PSUs from the manufacturing, BFSI, service, pharma and healthcare, retail, real estate and construction sectors. With such leadership as members, CIO KLUB is uniquely positioned to be the voice of the IT user community of the country. We have formed various working groups, one of which is to support Government initiatives to deploy IT in Government projects. This is a social initiative of CIO KLUB with its vast experienced pool of CIOs who have implemented various IT projects in private enterprises.

The CIO KLUB is unique in the sense that it provides an interactive platform for vendors, media and CIOs to exchange best practices and ideas and formulate strategy to address common IT issues. Its objective is to share and enhance knowledge, and one of the ways it does so is by organizing knowledge-sharing sessions across the country.

Last year, we started the BSE-CIO KLUB IT Awards, which recognize and honor CIOs who have set new benchmarks and have effectively used technology to improve business objectives. This is a one-of-its-kind award, initiated jointly by one of the largest IT user companies (BSE) and India’s largest IT user community organization (CIO KLUB).

For more information about the CIO KLUB, please visit

Office address:
CIO KLUB
DataVoice Solutions Pvt. Ltd.
414, Gemstar Commercial Complex,
Ramchandra Lane Extension,
Off Link Road,
Malad (W),
Mumbai - 400064

www.cioklub.com or email us at helpdesk@cioklub.com

Shirish Gariba
President,
CIO KLUB

Kishore Daryanani
GM Member,
CIO KLUB

Radhakrishna Pillai
Vice President,
CIO KLUB

Vilas Pujari
Secretary,
CIO KLUB

Ritu Madbhavi
President,
CIO KLUB Mumbai Chapter

Yogesh Zope
President,
CIO KLUB Pune Chapter

Umesh Mehta
President,
CIO KLUB Delhi Chapter

Jaganathan T
President,
CIO KLUB Chennai Chapter

C. S. Subramanian
President,
CIO KLUB Bengaluru Chapter

O. A. Balasubramaniam
President,
CIO KLUB Coimbatore Chapter
Survey team

Sneha Gandhi
Aniket Karekar
Vinay Kamath

Harshil Shah
Ishaan Balani
Shweta Rambhia
About EY
EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

Ernst & Young LLP is one of the Indian client serving member firms of EYGM Limited. For more information about our organization, please visit www.ey.com/in.

Ernst & Young LLP is a Limited Liability Partnership, registered under the Limited Liability Partnership Act, 2008 in India, having its registered office at 22 Camac Street, 3rd Floor, Block C, Kolkata - 700016

© 2016 Ernst & Young LLP. Published in India.
All Rights Reserved.

EYN1604-036
ED 1606

This publication contains information in summary form and is therefore intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment. Neither Ernst & Young LLP nor any other member of the global Ernst & Young organization can accept any responsibility for loss occasioned to any person acting or refraining from action as a result of any material in this publication. On any specific matter, reference should be made to the appropriate advisor.

JS