
Enabling technology for success



Highlights

Organisations spend up to 12% of revenue on technology with historically low return on investment

Understanding the supply and demand of technology capacity and communicating effectively to the business will improve operations and the expectations of technology

Knowing the operating model and environment makes it easier to pin-point risks, issues, and opportunities, to deliver a higher return on investment to stakeholders

Future technology departments will rely more heavily on third parties and trusted partnerships in order to maximise efficiencies and reduce fixed costs

Introductory Note

Tom DeGarmo

Global and US Advisory
Technology Consulting
Leader.

From business strategy to execution, technology has become the foundation for everything we do. It is also changing fast, introducing new opportunities and complexities. Many organisations are looking for better ways to adapt and adopt the new technologies. At the same time, organisations and their stakeholders now expect more from technology such as deepening customer engagement, driving innovation and revenue growth and improving profitability.

With many companies struggling with demands on IT, there is an opportunity for leaders to take a more deliberate and focused approach – but how? In “Enabling technology for success”, PwC looks at how five management pillars can drive organisations to evolve and sustain agile technology functions which not only support the core business, but can also help to drive strategic change.

As organisations face continued volatility in the global economy, their IT departments and projects do not need to do the same for less, they need to do things differently.

.

Improving the return on investment from technology spend

In organisations today technology is as valuable a commodity as electricity; without it your business is unable to function. This reliance on technology has been a natural progression as it provides efficiencies and productivity gains essential for maintaining a competitive advantage.

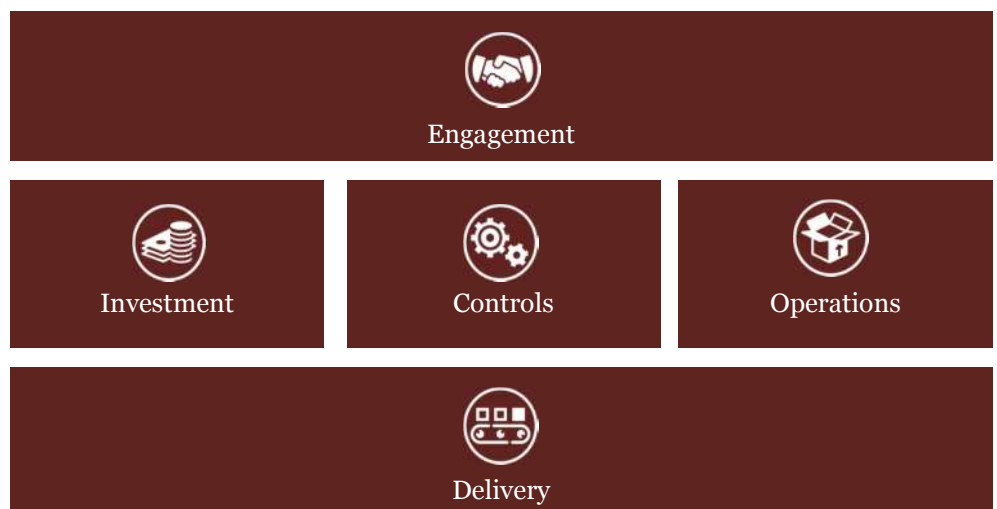
However, the speed of change is much faster than expected, driven primarily by the consumer market and large organisations have delayed adopting both technology advancements and controls to protect their business from new threats. As many business leaders become more technology savvy, they tend to break away from a traditional IT control structure in order to take advantage of innovative ideas and faster deployment.

Organisations are spending up to 12% of revenue on technology, with only 17% of technology projects delivering the expected benefits.

When one couples the current technology landscape of faster than expected growth, with the investment trend in technology; it indicates that there is a need to revisit the technology operating model in order to adapt and direct investment to deliver better value to the business.

This challenge may seem overwhelming for IT departments to enact such a change. However with some additional investment in frameworks and control structures it is possible to develop a strategy and plan that enables your IT department to be successful.

To enable success, your IT department must take note of the five key areas. Each area provides different benefits to your organisation.



At a glance...

There are five key components that must operate together in order for an IT department to operate effectively. Building the internal capability within your IT department for each of these management pillars will support the business in different ways.



Engagement

Transparent and regular communication between the business and the IT department to agree on objectives and goals.



Efficiency & Transparency



Investment

An agreed process that is transparent for investment decisions made within the IT department to manage demand.



Growth



Delivery

Strong delivery methodologies to maintain control of delivery in order to achieve benefits realisation.



Risk Mitigation



Operations

Regular monitoring and strong management of services provided to the business in order to manage limited resources.



Effectiveness



Controls

Set of parameters and control functions in place to manage change and drive efficiencies within the IT department.



Agility

Executives in consultation with all stakeholders need to decide how best to manage these areas of the IT department to deliver value to the business. Managing all of these areas needs to take into account your core business objectives, acceptable risk profile and organisational culture.



Engagement to drive efficiency

Engagement required to drive growth

86%

Percentage of CEOs recognise the need to change R&D and innovation capacity

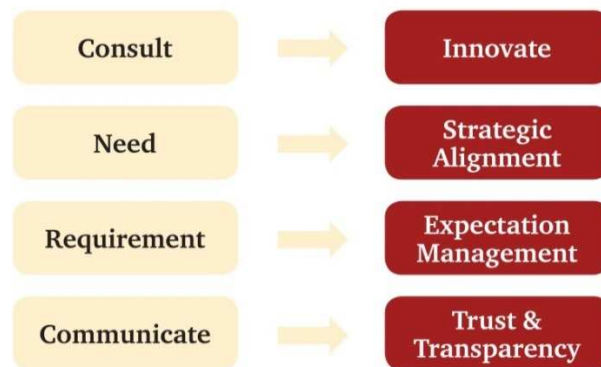
47%

CEOs are concerned about the speed of technological change as a potential threat to their organisation's growth prospects

Source: PwC 17th Annual Global CEO Survey January 2014

The growth of technology in the consumer market has led to an increase in the demand for IT departments to deliver innovative solutions rapidly. Business stakeholders and managers often get frustrated with the delivery timeframes of their IT department. This leads to business units developing their own solutions outside the confines and controls of the traditional IT department.

Many organisations struggle with the ability to create an environment that fosters the right types of communication. When communication is effective, it helps manage expectations of scope, schedule and costs. The following outlines four key types of communication that are associated with delivering technology to business stakeholders.



Benefits of different types of engagements

Engagement between the IT department and the business can take many forms and cover multiple media. The key types of communication to understand are:

- **Consult** – Regular open discussions on current problems and current technology advances lead to innovative solutions.
- **Need** – To ensure strategic alignment, early discussions between the business and IT department should focus on needs.
- **Requirement** – Once a solution has been agreed based on aligned need, detailed requirements allow expectations to be managed.
- **Progress** – Regular communication and engagement on the progress of delivery of a solution is essential. From investment decision and business case through delivery and operation provides trust and transparency.

When the type of communication taking place is known by both parties the conversation yields a better result.

As technology proliferates through our personal lives, the workforce will have a high level of understanding of the complexities of technology. This will lead to more business stakeholders taking an interest in the delivery of technology solutions across the organisation. Without establishing engagement principles and structures, IT investment and delivery may very quickly get out of hand.

An organisation should identify the types of communication that are most important to their strategic business goals and ensure that the appropriate principles and structures are in place.



Enabling efficiency requires engagement across four key areas

Engagement is essential to driving efficiency and transparency within any organisation. The same principles apply to the IT department. Engagement improves efficiency by improving the profile of IT within the organisation to prevent technology solutions appearing outside of the purview of the IT department. The most appropriate engagement model for an IT department and associated business units should be based on culture, organisational structure and strategy.



Investment decisions to drive future growth

Investment in new technology is growing

30%

Percentage of IT budget spent on building and transforming the business (Capex)

68%

Percentage of CEOs that are increasing investment in the Asia Pacific Region

Source: PwC IT Cost Benchmarking Analysis

Investment in maintaining existing technology and implementation of emerging technology is essential for business development and growth. The majority of IT funding is associated with existing operations there is a limited budget for investment in emerging technology.

There are numerous emerging technologies that technologists and business executives want to leverage for their organisation. These include big data, cloud computing, mobility solutions. Each of these touts benefits that will enable and grow an organisation.



Benefits of emerging technology

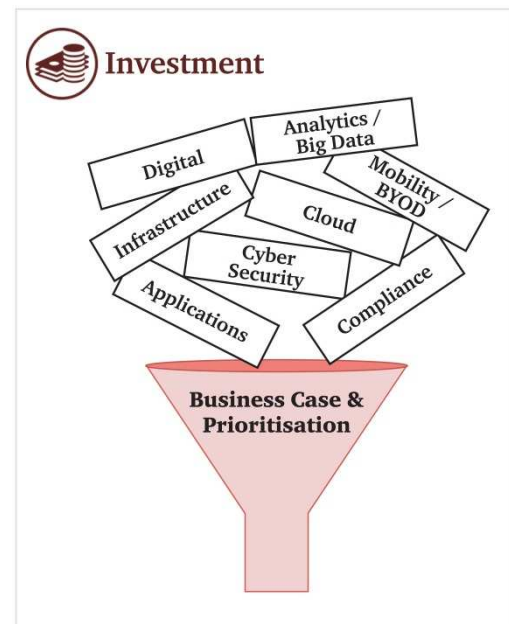
However each new technology also comes with risks, such as:

- Higher cost of operations;
- Increased complexity within the technology environment; and
- Uncertainty in costs due to variable cost structures.

IT departments have limited resources to deliver to the ever expanding demands from the business units. In order to gain a reasonable return on investment and benefits realisation there needs to be a strong business case and prioritisation methodology to support decision making.

When deciding on what technology to invest in, there must be a transparent methodology and process to inform the decision making. This process needs to take into account:

- Business strategy;
- Core business objectives;
- Core capabilities,;
- Target state risks; and
- Expected benefits.



Business cases need to be compared in a transparent process to be accepted by the business

Every organisation, even within the same industry, will have a slightly different outcome to the same technology business case. Acceptable risk profile of the organisation is one area where an organisation may decide it will wait until the technology is more mature before investing. Sourcing technology resources and subject matter experts is another competitive advantage that can result in faster delivery timeframes and different cost profiles for the business case. These are just two brief examples that will alter the outcome of the same technology business case.

Benchmarking, competitive analysis and professional networks will take a technology business case only so far. Rigorous analysis against transparent principles and guidelines specific to your organisation provide the most accurate business case and subsequent investment decision.

There will always be competing priorities between which technologies to invest in, and which technologies to “wait and see”. The objective of the investment process is to equally compare each investment proposal and make the most informed decision possible.



Delivery of value while reducing risk

Benefits are rarely realised

17%

Projects that deliver expected benefits

50%

Projects that deliver less than half of forecasted benefits

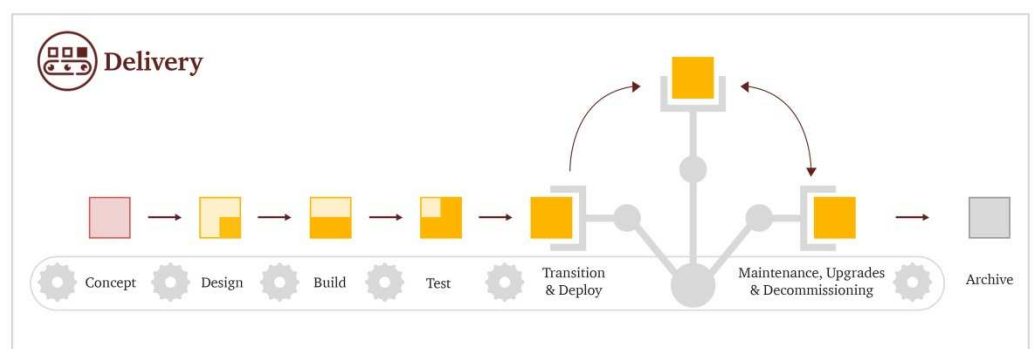
Source: PwC IT Cost Benchmarking Analysis

Delivery of new capabilities or upgrading existing capabilities is the engine room of the IT department. Historically, benefits are rarely achieved and in most cases the cause is the ability to manage risks during delivery. There are three areas to balance in order to manage delivery risks:

- **Methodology** – The delivery can take any form most suited to the organisation. (e.g.: waterfall, agile) Each methodology will come with its own set of benefits and risks to be accepted and closely managed. The key is that the chosen methodology has regular checkpoints to review delivery against the original business case. Whichever methodology is chosen it needs to align to the culture of the organisation and the objectives to be achieved.
- **Reporting** – Regardless of methodology used, reporting should be relatively standardised across all delivery projects. Standardisation of relevant information allows executives to easily respond to issues and make informed decisions. Gathering this information should also be as straight forward as possible for project managers in order to capture only necessary data and not take effort away from delivery of the solution.
- **Third Parties and Outsourcing Partners** – Managing partners and third parties are often used to expedite a project or provide subject matter expertise. Executives need to remember that they cannot outsource accountability of the project to a third party.

Each of these high-level areas must be balanced, as they add overhead to the actual solution deliverable. However, the decision to manage delivery and the associated cost overheads need to be factored into the investment case to be actively monitored.

The following diagram outlines at a high level the standard phases of a technology project. The delivery process starts from when a concept is agreed as an output of the business case stage; and it ends when the service is ultimately decommissioned and archived.



Delivery involves following a set of processes governed by stage gates

Technology delivery can take many forms in order to meet the objectives for an organisation. The goal is to have a mature, yet flexible, process with multiple checkpoints in order to effectively manage delivery and changing circumstances, balancing methodology, reporting and sourcing.

An effective delivery framework will enable you to deliver value and ultimately reduce the risks associated with technology projects.



Managing operations to drive effectiveness

High fixed costs within operations

70%

Percentage of IT budget spent on managing operations (Opex)

60%

Percentage of IT Budget that is fixed cost

Source: PwC IT Cost Benchmarking Analysis

Active and structured management of operations makes for more effective service delivery. Service delivery accounts for the largest percentage of IT budgets and also includes the highest fixed costs. This can be seen as positive for planning and budgeting but also a negative from a high cost profile.

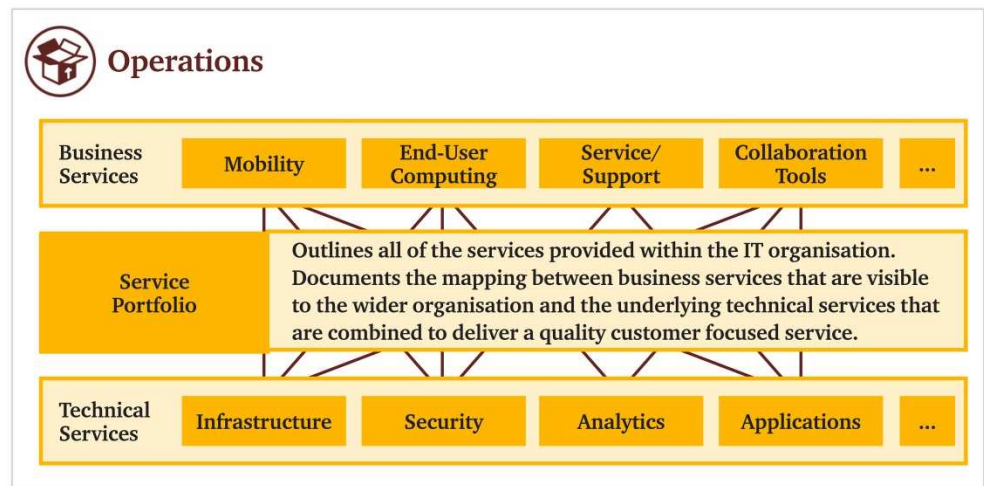
There are a few key areas to focus on when managing operations. Many of these focus on reporting and engagement:

- **Transparency of costs** – There are two cost factors associated with delivering services:
 - a) Fixed costs – regardless of usage the cost of delivering ‘x’ capacity of the service is fixed, and
 - b) Variable costs – as additional capacity is required additional costs are associated with scaling up or down.

Business stakeholders should have transparency of the costs associated with different technology services. This informs business and investment decisions.

- **Reporting on capacity** – Informing business users of the capacity of services assists in managing expectations. When a service reaches its ‘steady state’ capacity it results in a number of impacts to either the service delivery or the costs associated with delivering the service:
 - a) Impact service delivery through quality or speed to deliver; or
 - b) Impact cost as operations need to scale up processing capacity to meet demand.
- **Monitoring usage** – Many business users are not fully aware of all of the services provided by their IT department. Monitoring usage and reporting on services that reach minimal usage should be flagged for a decision to archive or decommission.
- **Strategic roadmap** – All services should follow a standard lifecycle and review process. The business and IT department should agree on the strategic roadmap and accepted criteria for archiving and decommissioning of services.

The following provides a diagrammatic representation of a service portfolio.



Service operations need to be clearly understood and presented to both the business and technology stakeholders

The key components of IT operations, based on a service delivery model are:

- a) Business services – the front line of the IT department from which the business stakeholders choose from a “menu” of services available;
- b) Technology services – the shared technology services that can be combined in order to support business services; and
- c) Service portfolio – the repository that maps the associated business and technology services. This is essential for managing the dependencies when it comes to decommissioning, archiving or maintenance of a service.

Ultimately, managing active services with regular reporting, monitoring and engagement with the business is required to manage costs and identify opportunities for cost reduction or service improvement.



Strong controls to improve agility

Maintaining control enables change

35%

Percentage of CEOs that believe their IT department is prepared to change in order to capitalise on global trends

25%

Percentage of CEOs that plan to outsource a business process or function in the next year

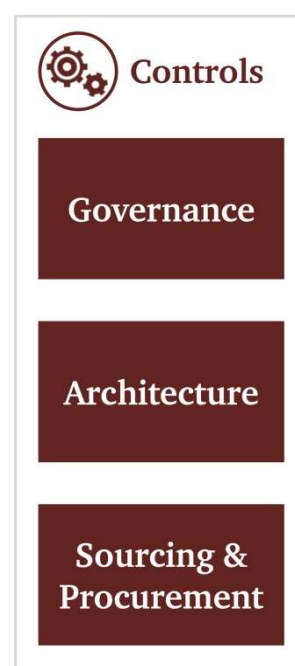
Source: PwC 17th Annual Global CEO Survey January 2014

Controls and structure within the IT department improve agility. The controls that are put in place for technology allow the other areas of engagement, investment, delivery and operations to work smoothly. If clear controls are understood and agreed to by business stakeholders the ability to be agile under changing circumstances becomes easier.

The controls that are established should not be confined to the IT department. There should be accountabilities and responsibilities that span the entire organisation.

The three primary controls that should be actively managed are:

- **Governance** – Controlling the complex technology environment described in the previous sections, requires decision makers to have access to the right information at the right time. The correct governance structure allows for decisions to be made quickly once all of the required information is available.
- **Architecture** – Provides the technology “map” of the organisation to manage current issues and identify future opportunities within the complex environment. An accurate view of the current state and working target state architecture allows for investment and operational decision to be made more strategically.
- **Sourcing and Procurement** – Acts in a “Broker” capacity to negotiate and manage an increasing number of complex relationships between vendors, technology and business stakeholders. Delivery of projects and services to business often use support from third parties and partners. Actively monitoring their activity maintains quality and control of the technology environment.



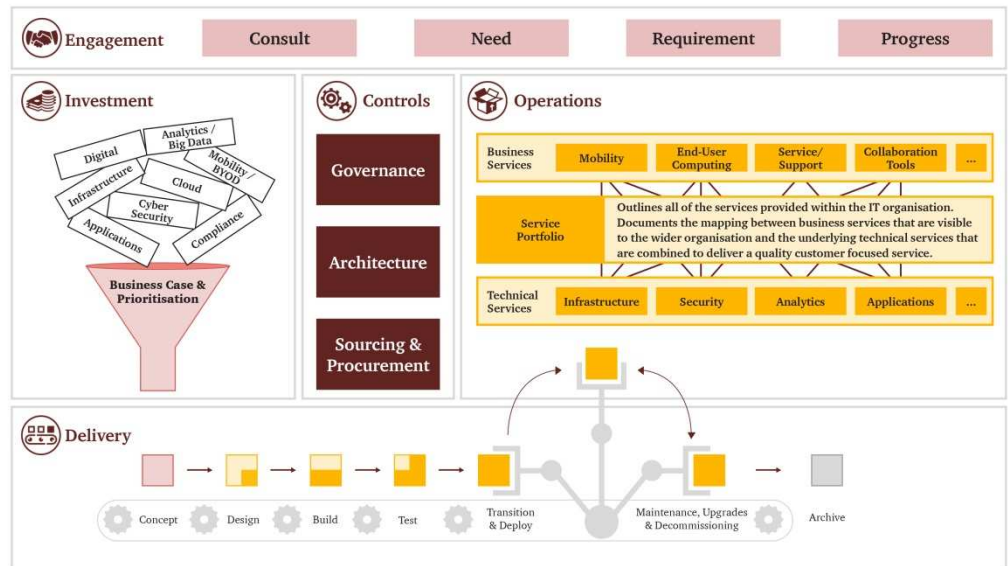
Controls within IT provide guidance to service delivery and expectation management

This is often an area that is overlooked in the business investment cycle, with the primary focus on development of IT capabilities. However, each of these requires the right balance of people, process and technology working together to provide an agile technology environment.



Five Management Pillars of Technology

The Chief Information Officer (CIO), as a leader of the IT department, must be aware of the five management pillars that make up the department. Combining the components of an effective IT department, results in the following:



Detailed breakdown of the components required for a CIO to deliver an effective outcome to business stakeholders

In order to have an effective IT department, investment is required. Investment in the internal IT capability should not be overlooked in the overall business strategy as investment into the IT department capability will result in a more effective department for the business.

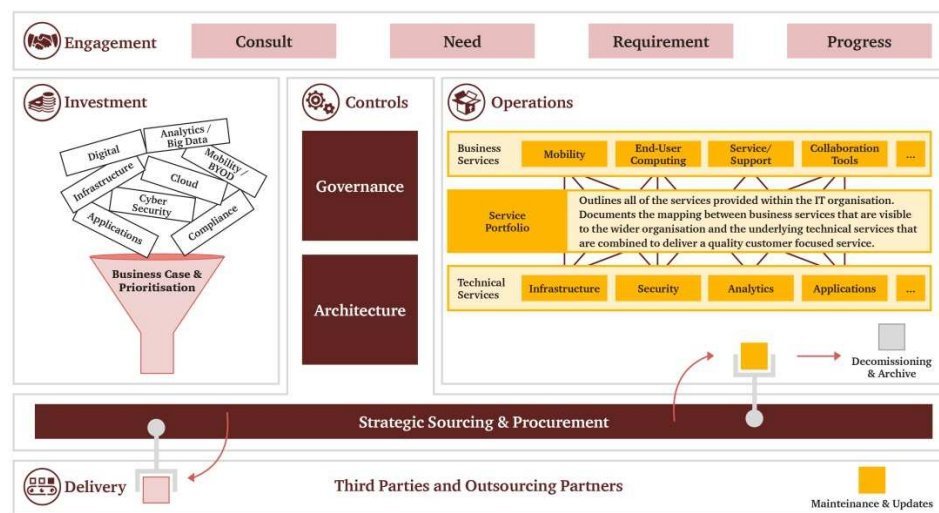
This investment in IT capability can be in the form of:

- Investing in training existing people within the department;
- Hiring the right people – both operationally and in leadership positions;
- Investing in the maturing of processes and procedures;
- Development of control functions to manage investment, delivery and operations; and
- Creating strategic partnerships with key third party providers.

In the same way as a business request for a new technology solution should be backed up by a business case and a joint decision by IT and business stakeholders. So too does investment in improving the internal functions of an IT department. During strategic planning sessions the CIO, direct reports and independent parties should be assessing the ability to deliver to all of these areas. Identifying which areas require additional investment to make a more effective IT department and provide the business with a higher return on investment.

Future – Rise of Strategic Sourcing

Emerging technology will influence how the management pillars and operating model will function in the future. The most significant change occurring now is the increased importance of Strategic Sourcing and Procurement. This will allow businesses to invest in their core services rather than supporting technology. The following diagram outlines how this will take shape in the future:



The future operating model within the IT department will be more heavily focused on Strategic Procurement and Sourcing over internal delivery of IT solutions

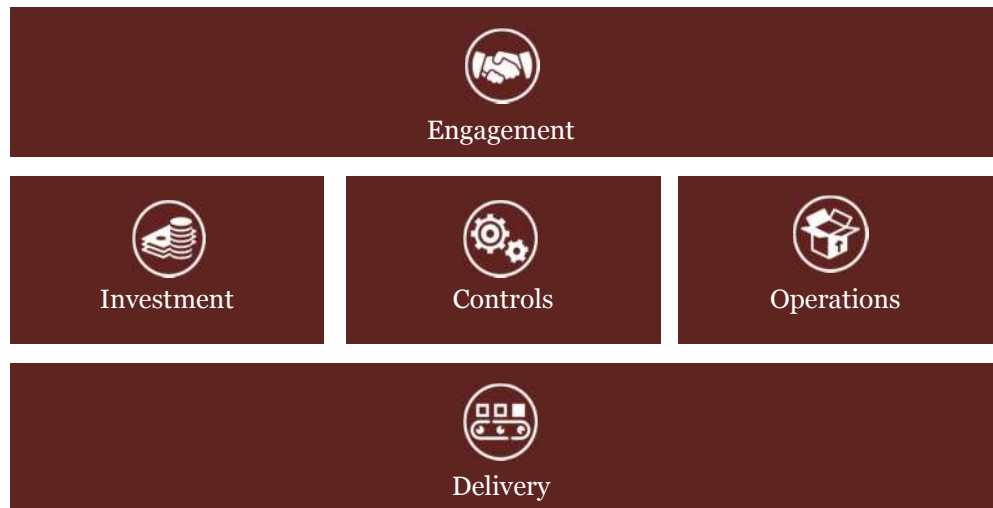
The future of the model, relying more heavily on strategic sourcing is being driven by the following emerging technologies and trends:

- Specialisation within the market** - will lead to increase in outsourcing and partnerships as more can be achieved in the right cooperative environment.
- Cloud Computing** – is the first step in a more commoditised market for Infrastructure as a Service (IaaS) through to configurable solutions delivered via Software as a Service (SaaS) removes the need for organisations to heavily invest in areas that are not part of their core business. This comes with cost saving and risk reduction benefits.
- Increased usage of Application Programming Interface (APIs)** – results in applications and solutions being easier to connect with each other and transfer information. This reduces the need for complex integration platforms and moves toward a more “plug and play” environment.

Engaging with third parties has always been critical for success. However in the future it will involve taking it further to create deeper relationships based on trust and an agreed standard of engagement. This will allow the IT department to focus on core business value while investing in new capabilities for the business stakeholders.

Conclusion

The five management pillars for technology allow CIOs and business leaders to compartmentalise and focus the IT department on key areas that deliver value to the business.



Applying these management pillars can allow CIOs and business leaders to quickly achieve the following:

- a) **Defining an IT strategy** – Establishing a strategy and roadmap, including targeted initiatives that revisit the structure and operating model of IT department across all five pillars.
- b) **Pillar deep-dive** – Investigate a single pillar to establish the right structures and controls to enhance and support delivery.
- c) **Deploying an emerging technology** – Developing from business case and concept to delivery and operation. Emerging technologies require subject matter experts to shepherd the concept to operation. (e.g.: analytics, big data, cloud computing, digital)
- d) **Establishing strategic partnership** – Partnering with vendor to provide an operational or delivery of a service that supports your IT department. (e.g.: business case development, investigations and forensics)

Across all of the above, PwC's Technology Capability leverages experience and global insights that can support you in enabling technology for success.

Author

Christopher C Warren
CIO Advisory – Singapore

Acknowledgements

Adam Neat
Partner – Singapore

Vish Padmanabhan
Partner – Indonesia

Pierre Legrand
Partner – Australia

David Moore
Partner – Australia

Ken Brown
Director – Australia

