

2015 CIO VIEWPOINT



KEY INSIGHTS

Outlook for the technology job market stays optimistic

The technology job market looks fairly optimistic across the Greater China region. Some 46% of respondents foresee the job market improving in the next 12 months, while more than half (53%) of CIOs predict increasing headcounts in the coming year.

There is a more optimistic outlook for hiring in mainland China as compared with Hong Kong and Taiwan, given that a variety of new start-up companies in mainland China will be looking to expand and secure candidates from both domestic and foreign companies.

Technology budgets on the rise

Almost half (49%) of technology professionals stated that their budgets have increased in the past year, with 42% saying their budgets are unchanged.

A high percentage (62%) of CIOs stated that their IT budget is the equivalent of 1%-5% of their company's revenue and a significant proportion (26%) say it is as high as 6% or above.

CIOs spends the most time on operations; budget and communication are two of their biggest concerns

A significant proportion of CIOs' time (38%) is focused on their operations, showing an emphasis on the stability and sustainability of their day-to-day functions.

Budget remains a primary concern for both CIOs in mainland China and Hong Kong, whilst in Taiwan, inadequate communication skills are seen as a key issue.

Mobility and big data are the focus going forward

CIOs throughout Greater China appear to be focusing on big data including consolidation of facts, insights and data applications as they control and direct their businesses.

Mobility is ranked as the top area for new technology spending by ClOs in mainland China and Hong Kong, and second behind cloud services by their counterparts in Taiwan.

Infrastructure maintenance is the most outsourced service in Greater China

Across Greater China, almost half (49%) of CIOs reported that a quarter of their work is outsourced and infrastructure maintenance is the most outsourced service.

Technology start-up firms are becoming more dominant and growing in size in mainland China. In Hong Kong, outsourcing is common because it offers cost savings, control and flexibility.

METHODOLOGY

The 2015 Greater China CIO Viewpoint report, produced by Michael Page, is based on the survey findings of 116 Chief Information Officers (CIOs) working across a range of industry sectors in mainland China, Taiwan and Hong Kong. The report provides a snapshot of CIO perspectives on some of the key considerations facing technology leaders over the coming 12 months, including the introduction of technological innovations and strategies within their organisations, IT budget allocation and resourcing trends.

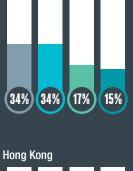
THE CIO ROLE AND FOCUS

The 2015 Greater China CIO Viewpoint shows that 68% of respondents work with a team of less than 50 people and 47% of CIOs work in teams that support over 1,000 users. Senior technology leaders are under pressure to support fast-evolving digital business scenarios. They work with a constraint of resources and have to juggle between engaging with business leaders, their management and the user community they support.

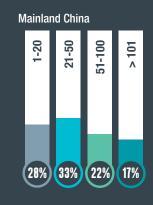
According to the survey results, a large proportion of CIOs' time (38%) is focused on their operations, showing an emphasis on the stability and sustainability of their day-to-day functions. Technology C-suite executives in Greater China are still expected to maintain their traditional role of 'oiling the wheels of the machinery' — that is, implementing, operating and securing their firm's legacy IT systems - managing their team of IT staff and justifying an IT budget that is always facing pressure for reductions and battling constraints.

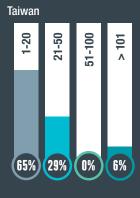
Average size of teams

Greater China 1-20 51-100 > 101 34%) (34%) 17% 15%









Number of users supported by CIOs

Greater China

9%	LESS THAN 50
11%	51-100
15%	101-500
18%	501-1000
47%	ABOVE 1001

Mainland China

7%	LESS THAN 50
9%	51-100
15%	101-500
16%	501-1000
53%	ABOVE 1001

Hong Kong

11%	LESS THAN 50
17%	51-100
24%	101-500
24%	501-1000
24%	ABOVE 1001

12%	LESS THAN 50
18%	51-100
6%	101-500
24%	501-1000
40%	AB0VE 1001

THE CIO ROLE AND FOCUS

CIOs spend the second highest proportion of their time (24%) on strategy. This observation ties in with the importance of CIOs being more strategic in their function. This would imply them expanding on opportunities and working on initiatives that create an impact on the company's vision. Approaching these initiatives will enable them to deploy strategy to build new IT-powered services and products and improve customer relationships through innovation and operations. Moreover, senior technology leaders in Greater China are currently the central players in bringing these innovations to life through new services and channels.

For CIOs in mainland China to be more focused on strategy, they should dedicate themselves to reorganising teams in order to optimise their capabilities and reduce costs. In mainland China, digital too, has also evolved to be more front-end facing as compared with being a back-end function in the past.

Innovation ranks third on the list of what senior technology leaders spend their time on, at 17%. Across Greater China, CIOs have to increasingly address innovation differently in their respective markets.

In Hong Kong, innovation is dependent on the specific industry's business objectives and the solutions needed to reach their market more successfully. Within Hong Kong and mainland China, to boost innovation in businesses, retailers will have to invest in their e-commerce and CRM functions.

They will also support innovation in new product and service initiatives. This is because firms, mostly multinationals in Hong Kong, will be interested to see if their product is up to the market's standards and use innovation to keep pace with evolving market trends. They should also begin devoting more of their time to growth-oriented and customer-centric innovation. In Taiwan, CIOs have to make do with limited resources and talent for innovation and are more concerned with processes and operations as well as project management.

On a broader scale in Greater China, senior technology leaders will need to strike a balance between refining core areas such as infrastructure and data centres and developing capable digital leadership with investments in mobile, cloud or analytics.

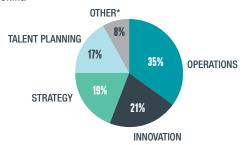
Most important activities in the role of ClOs by %

Greater China



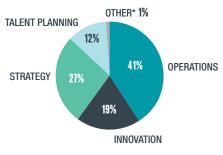
* Project implementation and management, research in new technology, stakeholder management, internal and external communication, crisis management, product research and development and market research, liaising with business units, IT sales and maintenance

Mainland China



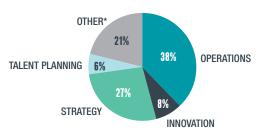
* Project implementation and management, research in new technology, stakeholder management, internal and external communication, crisis management, product research and development and market research

Hong Kong



* Business partnering

Taiwan



 Project execution, IT, sales, project management and implementation, communication, research and maintenance

THE CIO ROLE AND FOCUS

Budget issues remain a high-ranking concern for CIOs in both mainland China and Hong Kong. Traditionally in mainland China, the focus has been on enhancing customer experience. Particularly, the IT function in mainland China has a reputation for delivering dissatisfactory service in the past and it has proven difficult in meeting customer demands in the allocated timeframe.

In Hong Kong, CIOs dedicate the bulk of their budget to differentiating their product from other service providers and in turn, refining process improvement and nurturing innovation. Stakeholder management is yet another priority of senior technology leaders as Hong Kong and mainland China CIOs have varying scope of responsibilities and are often not the most senior person in technology. Often, a C-suite technology executive in Hong Kong and mainland China may report to a regional or global CEO, each with varying responsibilities and a different remit.

Inadequate communication skills of CIOs are a widely acknowledged gap in Taiwan. They remain a huge obstacle for placing suitable roles and pose challenges for talent to advance in the technology market. Often, many of them may not have an adequate level of English proficiency needed to converse with foreign clients and lack an international view towards business, both of which are needed for them to be globally competitive.

Top concerns faced by ClOs in their roles

Mainland China

EMPLOYEE ENGAGEMENT
AND ACQUISITION

BUDGET

INNOVATION AND
CUSTOMER EXPERIENCE

Hong Kong

STAKEHOLDER MANAGEMENT
CHANGE MANAGEMENT

Taiwan

COMMUNICATION ISSUES

COMPETITIVE ENVIRONMENT

STRATEGY

INFLUENCING COMPANY STRATEGY

Across Greater China, 67% of respondents are making decisions that impact the overall company strategy. They have to capitalise on the growing importance of technology supporting business growth and will have to be more effective at forging partnerships and extending their accountability to the business.

In mainland China, CIOs are getting more involved in making decisions with business leaders and determining outcomes that are related to the entire business cycle. Particularly in industries such as fast-moving consumer goods, pharmaceuticals and retail, these capabilities will be crucial.

Hong Kong has been recognised as a competitive hub for growing industries for some time and CIOs will have to be versatile in operating in different markets and understanding the structures of varying organisations. In Hong Kong and mainland China, technology C-suite executives may often report to a regional or global CIO head and have differing levels of influence when it comes to the overall strategy.

In Taiwan, there is a growing emphasis on the need for reliable data to support decision-making. Having business savviness and business sensitivity will be required to succeed in the Taiwanese market. CIOs will have to arm themselves with accurate and timely data through utilising increasingly complex and diverse business intelligence tools to make strategic decisions.

Making company-wide decisions over the past 5 years

Greater China



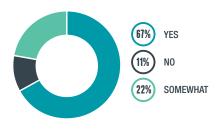
70%) YES, THIS HAS INCREASED

(4%) YES, THIS HAS DECREASED

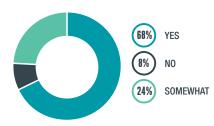
26% STAYED THE SAME

Making decisions that impact the overall company

Greater China



Mainland China



Hong Kong





IT INNOVATION AND STRATEGIES

CIOs throughout Greater China appear to be focusing on big data including consolidation of both facts and insights and data applications as they control and direct their businesses. Other improvements to business operations that CIOs are focusing on include process driven initiatives to drive costs down and improve efficiencies and implementing SAP applications.

Mobility was nominated as the top area for new technology spending by CIOs in mainland China and Hong Kong. In these markets, respondents will prioritise being adopters of mobility in their operations over the next 12 months, indicating prominent investments in the drive for heightened agility. In Taiwan, the focus is on cloud services as the most significant form of new technology spending, as senior technology leaders seek to have a better understanding of analytics and manage the drivers of business performance.

Priorities of CIOs over the next 12 months

Mainland China



Hong Kong



Taiwan



Main business improvement projects in 2015

Mainland China



Hong Kong





OUTSOURCED SERVICES

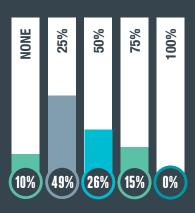
In mainland China, 59% of respondents identified that the most outsourced service is infrastructure maintenance. Foreseeably, for mainland China, there is a demand for external parties with a strong technology background who are able to support operations 24/7. There is also a surging trend to engage external consultants to advise and implement digital strategies of companies.

Small to medium enterprises have more reliance on digital agencies to help build their digital capabilities compared to larger multinationals who can afford to hire in-house talent. This observation correlates with the emergence of more digital agencies in mainland China as technology start-up firms are becoming more dominant and growing in size there. In Hong Kong, outsourcing is common because it offers cost savings, control and flexibility.

In Taiwan, the most commonly outsourced services are infrastructure maintenance, at 46% and ERP implementation, at 31%. For infrastructure maintenance, it is regarded in Taiwan as more cost-effective and productive to engage an external vendor's help. ERP implementation is another conventionally outsourced service in Taiwan as ERP consultants are able to assist pulling together all applications and services to make business' systems operate with more connectivity and align with a digital-ready purpose.

Vendor/external partner support by %

Greater China



Services most outsourced to vendors

Greater China

28%	INFRASTRUCTURE MAINTENANCE	
23%	SPECIALISED IT OPERATION TASKS	
23%	ERP IMPLEMENTATION	
13%	CLOUD SUPPORT	
13%	OTHERS*	

* Development, network and infrastructure support, store support, coding, implementation, software development, users' needs, small and new technology, e-commerce, software and hardware development, service desk, client outsourcing, system development and application development, CRM, HRS commoditised system, helpdesk application development and support and programming

Mainland China

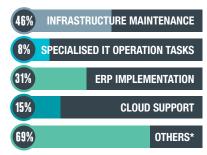
59%	INFRASTRU	CTURE MAINTENANCE
51%	SPECIALISED	IT OPERATION TASKS
51%	E	RP IMPLEMENTATION
28%		CLOUD SUPPORT
19%		OTHERS*

^{*} Development, network and infrastructure support, store support, coding, implementation, software development, users' needs, small and new technology, e-commerce, software and hardware development, service desk, client outsourcing, system development and application development

Hong Kong

60%	INFRAS	TRUCTURE MAINTENANCE
53%	SPECIAL	I <mark>sed it op</mark> eration tasks
27%		ERP IMPLEMENTATION
20%		CLOUD SUPPORT
13%		OTHERS*

^{*} CRM, HRS commoditised system



^{*} Helpdesk, application development and support and programming

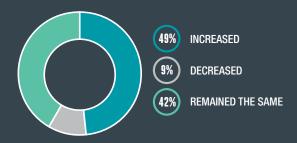
BUDGET PLANNING

Results from the survey indicate that almost half (49%) of CIOs in mainland China, Hong Kong and Taiwan are operating with increased budgets and for a high proportion (62%) between 1%-5% of their organisation's revenue is reinvested into their IT budget. More than a quarter (26%) of respondents stated that their budget is the equivalent of 6% or more of their company's revenue, giving reason to think that companies across the region are starting to realise that technology can drive the bottom line through improved productivity, efficiency and cost savings.

Across Greater China, most professionals devoted significant parts of their budget to customer service experience (22%) and business opportunity initiatives (21%). In mainland China, many firms are looking to hire business partners to improve customer experience and service delivery, whereas in Hong Kong, CIOs are looking to move into a more customer-service driven and innovation-centred direction in the next 12 months. In Taiwan, a high percentage (40%) of CIOs are devoting their budget to cloud services, which is reflective of the desire for technology companies to keep up with the rest of the fast-changing market.

Has IT budget increased or decreased in the past year?

Greater China



How much of the organisation's revenue gets reinvested into IT budget?*

Greater China

12%	LESS THAN 1%
62%	1-5%
6%	6-10%
2%	11-15%
7%	16-20%
11%	MORE THAN 20%

Most significant areas of a company's IT budget*

Greater China



** Projects, integration, architecture infrastructure, operations, maintenance, hardware, network maintenance, research & development, ERP, digital sales-related tools, talent, case management situations, market data, CAPEX, security infrastructure upgrade, licensing, vendor contracts, security

Mainland China

63%	CUSTOMER EXPERIENCE
59%	BUSINESS OPPORTUNITY INITIATIVES
51%	INNOVATION
37%	ANALYTICS
30%	CLOUD SOLUTIONS
23%	OTHERS**

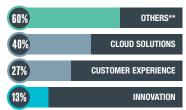
**Projects, integration, architecture infrastructure, operations, maintenance, hardware, network maintenance, research & development, ERP, digital sales-related tools, talent

Hong Kong



**Case management situations, hardware/server upgrades, market data, maintenance, CAPEX, security, infrastructure upgrade and operations

Taiwan



**Licensing, vendor contracts, maintenance, hardware, software, research and development and data security

^{*}Note: This is based on the 116 ClOs that the report has surveyed and this cuts across various industries

TALENT IN DEMAND

Across Greater China, the technology job market is fairly optimistic. Some 46% of respondents foresee the job market improving in the next 12 months. Another 35% predict the job market will remain steady for IT professionals, indicating solid performances from the sector in the region.

In mainland China, there is a growing demand for data analysts as big data remains a popular area for companies to review candidate profiles and to continue to have an impact on the growth of the technology market. Developers form another highly sought after segment of talent. However, the demand from larger multinationals is not as high as in technology companies, where their work is considered more relevant.

Cyber security is top of the list in Hong Kong and there is a growing demand for developers who are able to interpret and create codes to suit varying business functions. There is also a demand for cyber security experts in industries such as banking and retail, which largely depend on internet businesses for revenue and expansion.

CIOs in Taiwan and mainland China reported that they are looking for talent with both technical skills and business sensitivity. They also need to be able to handle the everchanging nature of interactions between customers and organisations.

Specific local market conditions will have their own impact on recruitment initiatives and determine growth in talent but it looks as if CIOs need to engage the expertise of professional recruiters to attract talent who are adaptable and have a higher potential for retention. Recruiters in the technology space are highly valued and relied on as they possess wide networks, have access to higher quality candidates and are constantly aware of market trends. This knowledge allows them to be able to advise clients on their talent needs, identify candidates with the right skillsets and stay in contact with high-performing candidates. This makes technology recruiters for clients a viable and productive option when it comes to talent acquisition and retention.

Staff changes in your organisation over the next 12 months

53% INCREASE 6% DECREASE 41% REMAINED THE SAME

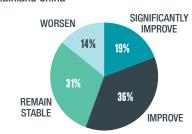
Expected performance of technology job market in the next 12 months

Greater China



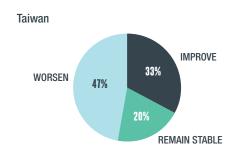
Mainland China

Hong Kong



WORSEN SIGNIFICANTLY IMPROVE 12% IMPROVE

REMAIN STABLE



Greater China

SKILLS FOR SUCCESS IN LOCAL MARKETS

Should there be a skills shortage within the local technology industry, talent may have to be sourced from overseas, with 70% of surveyed CIOs considering recruiting international IT professionals.

In Hong Kong, overseas workers have more accessibility to senior jobs because language and cultural factors are not as prevalent as they are when candidates seek more junior roles.

Having a heightened understanding of the ways of doing business in mainland China will be required for anyone who wishes to relocate there. Foreign talent seeking new opportunities in mainland China have to demonstrate relevant knowledge of the market and have an adequate grasp of Mandarin before they can be considered for roles. For internal international transfers, being well versed in Mandarin is not so critical should the proven expertise be adequate.

Skill diversification plays a huge role for foreign talent wishing to seek job opportunities in Taiwan. Taiwanese technology businesses will only consider international talent should they have unique skill sets that are difficult to identify or skills they are unable to train local talent for.

In Taiwan, there is also limited talent with regional exposure in their work experience. This means that it is difficult to train them to manage teams of varying nationalities. There is also difficulty in identifying talent with distinct technical skills such as CMP, material engineering and process optimisation. Unless Taiwanese candidates have the opportunities to study abroad, they can rarely have access to these unique technical skills.

The room for new talent looks promising as over half of all CIOs surveyed expect the number of technology staff in their organisations to increase over the next 12 months. Core skills in demand include managing data and relating it to problemsolving and strategy execution, having the ability to synthesise digital functions into their business and an awareness of how big data, cloud services and mobility can enhance their business. There is a more optimistic outlook for hiring in mainland China as compared with Hong Kong and Taiwan, given that a variety of new start-up companies in mainland China will be looking to expand and secure candidates from both domestic and foreign companies.

This will require organisations to have talent capable of improving efficiency, creating value, ensuring optimisation, and to be a source of inspiration for new ideas and strategies. CIOs will need to have a coordinated approach to talent acquisition and place emphasis on talent retention so as to respond quicker to the needs of the evolving technology market.

Possibilities of recruiting international talent due to difficulty identifying local talent

Greater China

70%

YES

NO
30%

Mainland China



Hong Kong



Taiwan



Skill shortages/gaps in the market

Mainland China



Hong Kong

CYBER SECURITY AND SECURITY QUALIFIED

ENGINEERS, BAS, PMS

Taiwan

KNOWLEDGE OF BIG DATA, HAS BUSINESS
SENSE AND TECHNICAL SKILLS
INTEGRATION WITH
INFRASTRUCTURE AND SOFTWARE

SYSTEM ANALYSIS
AND SYSTEM UPGRADE



CONTACT US



CHINA

Beijing

2701/2708 SK Tower No.6 Jia Jianguomenwai Avenue **Chaoyang District** Beijing, China 100022 t +86 10 5969 0666 f +86 10 5969 0669

Guangzhou

Level 28, Suite 2803, Teem Tower, 208 Tianhe Road Tianhe District Guangzhou, China 510620 t +86 20 2338 5700

f +86 20 2338 5701

Shanghai - Puxi

Level 11, Tower 2, Jing An Kerry Centre 1539 Nanjing Road West Shanghai, China 200040

t +86 21 3222 4758 f +86 21 3222 4759

Shanghai - Pudong

Level 8, Tower 2, Shanghai International Finance Center No.8 Century Avenue, Pudong District Shanghai, China 200120

t +86 21 6062 3000 f +86 21 6062 3001

Shenzhen

Suite 504, China Resources Building 5001 Shennan Dong Road Shenzhen, China 518001 t +86 755 3396 0900 f +86 755 3396 0901

Suzhou

Room 1003, Tower 2, Jinghope Plaza 88 Hua Chi Street, SIP Suzhou, China 215028 t +86 512 6799 5300 f +86 512 6799 5301

enquiries@michaelpage.com.cn www.michaelpage.com.cn











HONG KONG

Pacific Place

Suite 611, One Pacific Place 88 Queensway, Hong Kong Island Hong Kong S.A.R., China t +852 2530 6100 f +852 2530 6101

Admiralty Centre

Suite 1611, Admiralty Centre Tower 1 18 Harcourt Road, Admiralty Hong Kong S.A.R., China t +852 3602 2400 f +852 3602 2401

Kowloon

Suite 1512, Tower 1, Grand Century Place 193 Prince Edward Road West Mongkok, Kowloon Hong Kong S.A.R., China t +852 3476 6300 f +852 3476 6301

enquiries@michaelpage.com.hk www.michaelpage.com.hk









TAIWAN

Taipei

8th Floor, Shin Kong Xin Yi Financial Building 36-1 Songren Road, Xinyi District Taipei, Taiwan 110 t +886 2 8729 8200 f +886 2 8729 8201

enquiries@michaelpage.com.tw www.michaelpage.com.tw







