

Q-Series®

Will digital diminish the offshore advantage?

Equities

Global

Diversified Technology Services

We expect a fundamental shift in enterprise IT outsourcing models

The growing adoption of digital services (see our earlier notes [here](#) and [here](#)) has raised concerns on the revenue growth prospects of offshore services vendors, as outsourcing models shift from skill provision and management to intellectual property-based solutions. UBS Evidence Lab survey findings point to a preference for consulting-led global services providers and specialist vendors. Combined with legacy pressure and vendor consolidation, this reinforces our cautious stance on offshore services.

Proprietary survey indicates strong digital adoption, increased legacy pressure

UBS Evidence Lab conducted a survey of 137 IT decision makers in Fortune 500/Global 1,000 companies, 78% of whom use offshore IT services. The findings show that digital services have passed the early-adoption stage, with deal sizes close to US\$50m, and nearly a third of respondents indicating digital now comprises over 20% of IT services budgets. In addition to incremental budget allocation to digital, IT users are saving money by reducing legacy spending through price cuts and vendor consolidation. These trends are likely to impact revenue momentum for incumbent vendors, in our view.

Less than a third favour offshore vendors; consulting-led vendors preferred

Less than a third of survey respondents chose offshore vendors for digital services, and Indian vendors ranked below global peers, likely a function of their nascent digital solutions. Global vendors were the most preferred vendors across all digital technologies, likely due to their consulting-led service offerings. Luxoft stood out, ranking in the top three preferred offshore vendors in all digital technologies. We expect this shift to result in slower revenue growth for Indian offshore vendors in the next three to five years (consensus estimates that Indian sector revenue will continue to grow at 4-5x the pace of the global market). We expect global and Eastern European vendors to maintain current growth rates, while India IT should slow as outsourcing models move away from labour arbitrage. We expect wider growth dispersion among Indian vendors (1-4x the pace of global outsourcing) with the winners growing faster.

Earnings downside potential for India IT; positive on Eastern European vendors

We maintain our anti-consensus cautious view on India IT service providers and expect revenue growth to slow from the current low teens to the high single digits. We are below consensus on medium-term earnings and see risks to valuations, which are above five-year averages. We remain bullish on Eastern European vendors Luxoft and EPAM as their shares are trading at PEGs less than one.

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**UBS Evidence Lab provides our research analysts with rigorous primary research. The team conducts representative surveys of key sector decision-makers, mines the internet, systematically collects observable data, and pulls information from other innovative sources. They apply a variety of advanced analytic techniques to derive insights from the data collected. This valuable resource supplies UBS analysts with differentiated information to support their forecasts and recommendations – in turn enhancing our ability to serve the needs of our clients.*

Executive summary

Key investor questions addressed in this report

In a recent CEO survey, respondents attributed 22% of their 2014 revenue to digital channels, but expected this to increase to 41% by 2019, according to Gartner. Needless to say, digital investments were among their key spending priorities for the next five years. As the adoption of digital services (technologies powered by Social Media, Mobility, Big Data analytics and Cloud) gains momentum, we have come across a few recurring questions in our client conversations:

1. As digital makes IT services less reliant on headcount and more reliant on solutions, is labour arbitrage still relevant to competitiveness?
2. Offshore vendors do not have a track record of building intellectual property; does this shift the competitive advantage back to IBM, Accenture etc?
3. How are different vendors positioned to address this technology shift?
4. How do we pick winners in the digital era?

We have addressed these questions through an extensive IT user survey that analysed current vendor usage and future preferences for digital services. The findings reinforce our view that global vendors like IBM, Accenture, Capgemini and Atos are better positioned in digital, while offshore vendors are yet to fully integrate and scale offerings in this area. As IT outsourcing models start to move away from headcount, vendors that have better consulting and/or solution-led capabilities are likely to have an edge over the next three to five years.

Unique survey that targeted large offshore users

We used UBS Evidence Lab's primary survey expertise to survey 137 IT senior executives from Fortune 500 and Global 1,000 firms across key IT markets (the US, UK, France) for digital spending patterns and vendor preferences. The survey covered key industries including banking and financial services, retail, manufacturing, telecommunications and healthcare. Uniquely, the survey targeted respondents with high offshore exposure—nearly 80% use offshore services, with relatively high penetration of the large Indian vendors and the Eastern European vendors.

Vendor preferences and positioning

Global vendors and specialists preferred over offshore for digital services

While most respondents use offshore vendors meaningfully in their current services outsourcing, preferences in digital services were heavily skewed in favour of the consulting-led global vendors—IBM, Accenture, Atos and Capgemini. We believe this is due to the significant investments made by these firms in the last few years to build and acquire digital solutions, and their exposure to consulting, which allows them to remain ahead of their offshore peers in the transition to digital. Fujitsu ranks lower in vendor preferences, as the survey focussed on the US, the UK and France. The company remains the dominant vendor in Japan and we expect its new business transformation programme to help it improve its digital capabilities and maintain market dominance in Japan.

Eastern European vendors are well positioned in digital

Luxoft ranked highly in vendor preferences for digital services; the company was among the top three in all digital technologies among the offshore vendors. We think both Luxoft and EPAM are well positioned given their large digital exposure (around 50-60% of revenue) and agility as smaller organisations, which allows them to adapt to client demand more quickly.

Indian vendors do not fare as well in vendor preferences

There was no clear leader in vendor preferences among the Indian services vendors. TCS and Cognizant fared very well in big data and cloud, respectively, but ranked lower than the global vendors in future preferences, where Wipro ranked higher. Infosys ranked well in social media and mobility, but these are the digital segments with the lowest client spending. HCL Tech and Tech Mahindra did not fare well, even in cloud and mobility, where we would have anticipated better results for these companies.

Figure 1: Preferred IT services providers by digital segment

Cloud Services		Big Data		Social		Mobility	
IBM	56%	IBM	54%	IBM	51%	IBM	50%
Accenture	24%	Accenture	27%	Accenture	32%	Accenture	31%
Atos	19%	Atos	21%	Atos	21%	Atos	21%
Capgemini	16%	Capgemini	16%	Capgemini	19%	Capgemini	21%
Luxoft	13%	Wipro	13%	Infosys	13%	Infosys	13%
Wipro	13%	Luxoft	13%	Luxoft	13%	Luxoft	13%
Cognizant	13%	Infosys	11%	Wipro	12%	Cognizant	11%
Infosys	10%	Cognizant	10%	TCS	8%	Wipro	10%
TCS	7%	TCS	9%	Cognizant	8%	TCS	9%
HP	7%	HP	5%	EPAM	4%	EPAM	3%
Tech Mahindra	4%	EPAM	4%	HCL Technologies	2%	Tech Mahindra	2%
EPAM	4%	HCL Technologies	2%	HP	2%	HP	2%
Fujitsu	1%	Dell	2%	Fujitsu	1%	Fujitsu	1%
HCL Technologies	1%	Fujitsu	1%	Tech Mahindra	1%	HCL Technologies	1%
Dell	1%	Tech Mahindra	1%	Dell	1%	Dell	1%
In-house	4%	In-house	4%	In-house	5%	In-house	4%
Others	5%	Others	5%	Others	6%	Others	5%

■ Consulting-led global vendors ■ Indian IT Services vendors ■ European IT Services vendors ■ Others

Source: UBS Evidence Lab 2015

Respondents' vendor preferences were largely in line with our proprietary Digital Services Vendor Ranking, as shown below.

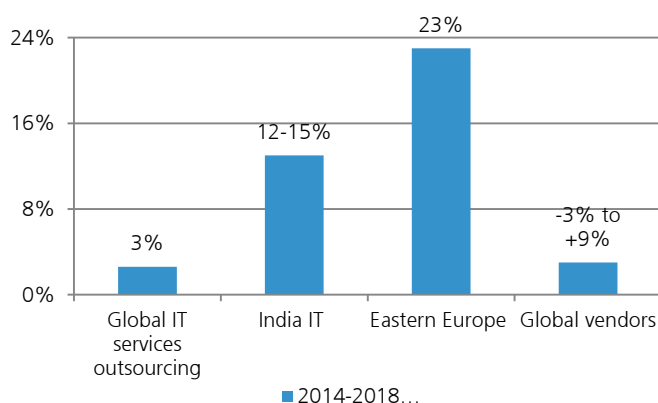
Figure 2: UBS Digital Services Vendor Ranking

Company	Digital revenue (US\$ m) - 2014/FY15	Digital as % of revenue - 2014/FY15	UBS Digital Services Rank (5 highest)
Accenture	>7,000	>20%	5
ATOS	>1,000	>10%	3
Capgemini	~3,000	>20%	4
Cognizant	>1,000	>10%	3
EPAM	<365	<60%	4
HCL Tech	<650	~10%	2
IBM	7,400	13%	4
Infosys	~1,000	~10%	2.5
Luxoft	<250	<50%	4
TCS	>2,000	~ 13%	3
Tech Mahindra	<500	<10%	2
Wipro	<1,000	<10%	2.5

Source: Company data, UBS estimates

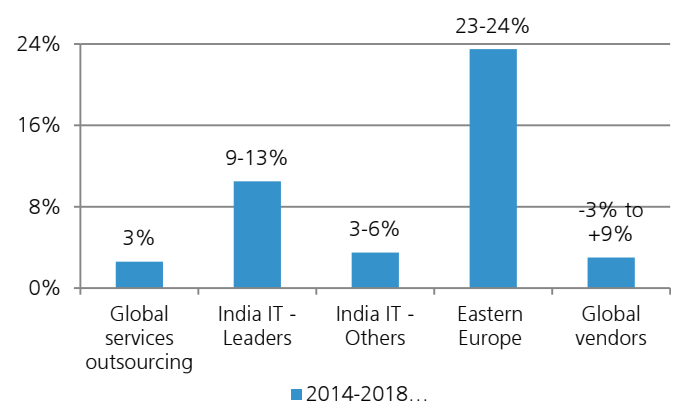
Top beneficiaries: EPAM, Luxoft, Atos, Fujitsu, HP

Figure 3: Industry revenue growth: consensus forecasts, 2014-18F



Source: Bloomberg, NASSCOM

Figure 4: Industry revenue growth: UBS estimates, 2014-18E



Source: UBS estimates

Overall, we remain cautious on the IT services space as we expect the ongoing transition in the sector to be deflationary on legacy revenue for incumbent vendors. Consulting led vendors like Accenture, IBM, Capgemini and Atos ranked highly in IT user preferences for digital services. IBM scored well in newer Social, Mobile, Analytics, Cloud (SMAC) technologies, but HP's legacy strength does not carry over well. The emphasis that Accenture and Capgemini are putting on their digital offerings is bearing fruit, although Atos' rankings (especially strong in France), were a positive surprise. These vendors have reported strong local currency revenue growth and decent earnings momentum, and we expect their strong positioning in digital services to help them gain market share. Among the global vendors, we think the digital services transition theme is not priced in for Atos, HP and Fujitsu and we think these stocks could see a positive impact as the theme gets priced in.

We think Luxoft and EPAM are both well positioned in chosen verticals given their high competency in digital. We expect these vendors to benefit from increased market share gains in enterprise IT users. This should help them sustain their revenue growth rates at current levels. We believe the street is yet to fully reflect the impact of digital services in their share prices, and see upside potential.

We expect revenue growth in the Indian IT sector to slow from the current low double digit growth rate, which is roughly 5x the pace of the global outsourcing market. Revenue growth at a few of the vendors is already slowing to 2-3x the pace of the global outsourcing market. In the next three to five years, we expect revenue growth in the high single digits for the Indian IT sector, with a wider dispersion between vendors. We expect vendors that are successful in the transition to digital to grow revenue at close to 3-4x while other vendors could slow down to 1-2x the pace of the global outsourcing market (we estimate 2-3% medium term annual growth). We believe this theme is not yet factored into share prices and consensus estimates and see downside potential from current levels. While we like TCS for its strong technical capabilities in digital and Cognizant for its consulting-led edge, we believe there is little meaningful share price upside potential from current levels due to: 1) fuller valuations relative to the sector; and 2) the impact of a sector-wide slowdown that could impact sentiment and cap valuation upsides.

Figure 5: How well is the impact of the digital shift priced in? Consensus comparison

Company	UBS rating	Digital impact priced in? (Y/N)	Digital impact (Positive/Negative)	Consensus			2014-17E/FY15-18E earnings CAGR	
				Buy	Neutral	Sell	UBS	Consensus
Accenture	Neutral	Y	Positive	52%	48%	0%	8.2%	8.3%
ATOS	Buy	N	Positive	62%	29%	10%	16.6%	16.5%
Capgemini	Neutral	Y	Positive	65%	30%	4%	16.3%	16.7%
Cognizant	Neutral	N	Negative	88%	9%	3%	15.1%	18.7%
EPAM	Buy	N	Positive	56%	38%	6%	23.5%	20.4%
Fujitsu	Buy	Y	Negative	63%	26%	11%	2.2%	2.2%
HCL Tech	Neutral	N	Negative	71%	22%	7%	7.5%	10.9%
HP	Buy	Y	Negative	53%	42%	6%	-2.0%	0.1%
IBM	Neutral	Y	Positive	23%	57%	20%	2.7%	1.2%
Infosys	Sell	N	Negative	75%	20%	5%	7.5%	11.5%
Luxoft	Buy	N	Positive	60%	20%	20%	20.3%	20.2%
TCS	Neutral	N	Negative	47%	44%	9%	13.5%	11.9%
Tech Mahindra	Neutral	N	Negative	50%	34%	16%	15.8%	18.1%
Wipro	Sell	N	Negative	41%	43%	16%	7.4%	8.9%

Source: Bloomberg, UBS estimates

Evidence Lab survey: key findings

Methodology and respondent profiles

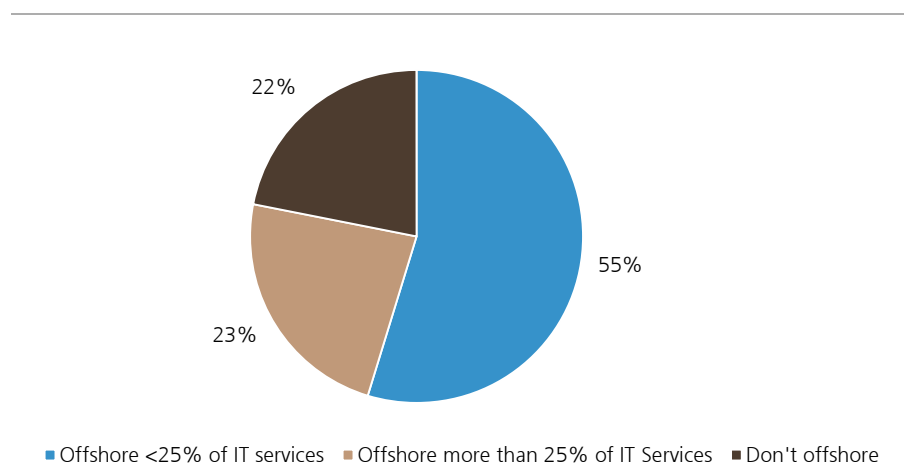
Definition of digital services for the purpose of the survey

For the purposes of this survey, UBS Evidence Lab surveyed global IT users on their spending patterns and intended spending on digital services, as defined by four different technology forces, namely: 1) social media; 2) mobility; 3) analytics; and 4) cloud. The scope of this definition includes all technology initiatives delivered using the above four technologies. This would include all outsourcing models, including traditional headcount-based outsourcing as well as software-as-a-service and cloud-based delivery models.

Survey targeted main markets; 78% of respondents have offshore exposure

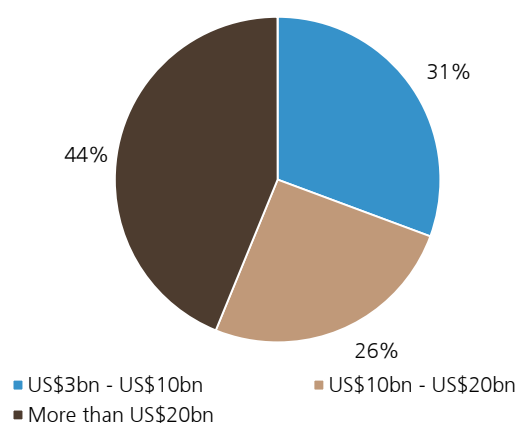
For this report, UBS Evidence Lab conducted telephone interviews with 137 IT senior executives (eg CIOs, COOs, VP Directors) of Fortune 500/Global 1,000 companies (representing over 50% of global IT Services spending) in the US, UK and France responsible for their company's IT services outsourcing decisions,. All companies surveyed are currently outsourcing their IT services and have a minimum annual turnover of US\$3bn. They span a broad spectrum of industries including banking and financial services, retail, manufacturing, telecommunications and healthcare. The survey, conducted from 13 July to 7 August 2015, also targeted respondents with significant offshore exposure—almost 80% of respondents use offshore as part of their outsourcing strategy. The respondents are the key target clientele for the IT services vendors, and provide insights into outsourcing trends and preferences.

Figure 6: 78% of respondents use offshore IT services



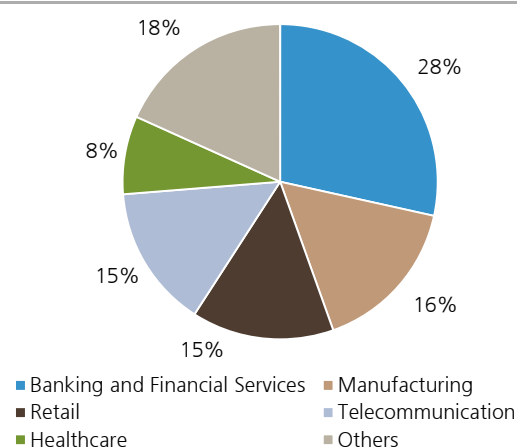
Source: UBS Evidence Lab 2015

Figure 7: 69% of respondents have revenue over US\$10bn



Source: UBS Evidence Lab 2015

Figure 8: Survey covered key outsourcing industries

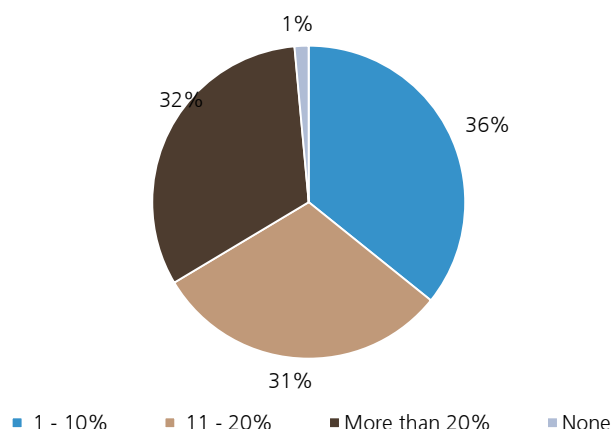


Source: UBS Evidence Lab 2015

Digital adoption and deal sizes better than expected

In our November 2014 report [Digital services 101: assessing the market opportunity and vendor initiatives](#) we observed that digital services had attained critical mass for faster adoption by enterprise IT users. The findings from the UBS Evidence Lab survey suggest adoption has accelerated in the past few months. Nearly two thirds of the respondents we surveyed indicated digital services comprised more than 10% of their IT budgets and 32% of respondents allocated 20% of their budgets to digital services.

Figure 9: Digital services more than 10% of budget at 63% of respondents' companies

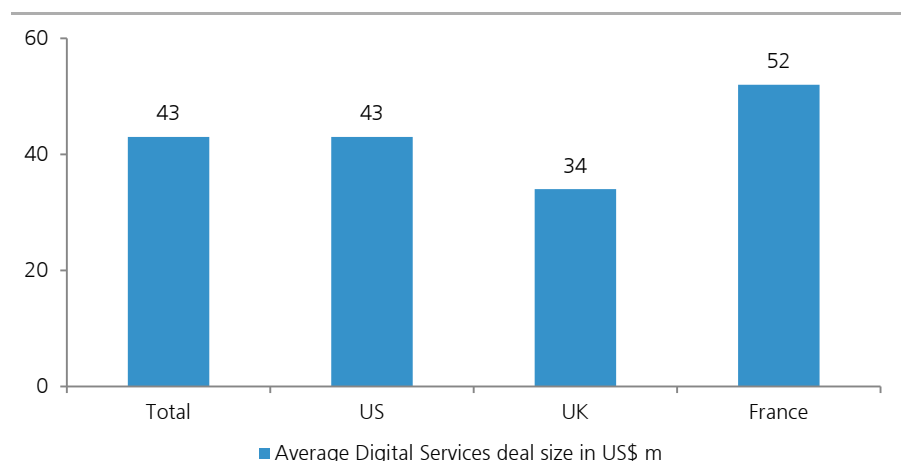


Source: UBS Evidence Lab 2015

Deal sizes close to US\$50m

Vendors like Accenture, TCS and Cognizant have noted strong growth in digital service revenue in recent quarters, suggesting contract sizes are improving in the segment. Our survey also reveals reasonably large deal sizes, with average contract value ranging from US\$34-52m in our survey locations.

Figure 10: Contract value of digital deals are reasonably large (US\$ m)

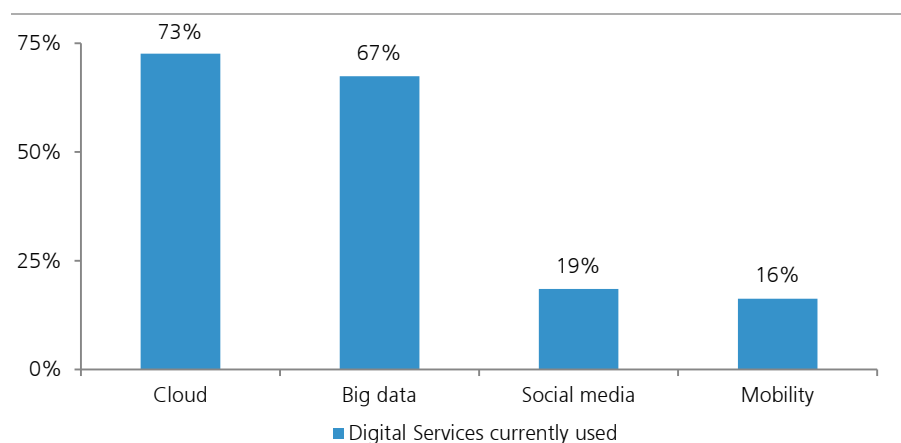


Source: UBS Evidence Lab 2015

Cloud, big data are the key investment areas

Within digital services, close to 70% of respondents identified cloud and big data analytics as the key areas of budget allocation. Social media and mobility investments were much smaller in comparison. We believe this is because cloud offers significant cost savings, while big data analytics help improve client-facing activities. Vendors with better capabilities in these two areas could achieve faster revenue growth in digital than vendors more proficient in social media and mobile technologies.

Figure 11: Cloud and big data are the key spending areas in digital services

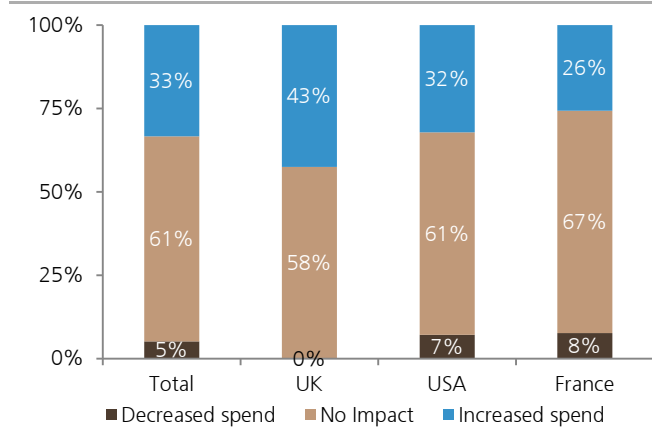


Source: UBS Evidence Lab 2015

Cloud spending unlikely to shrink budgets

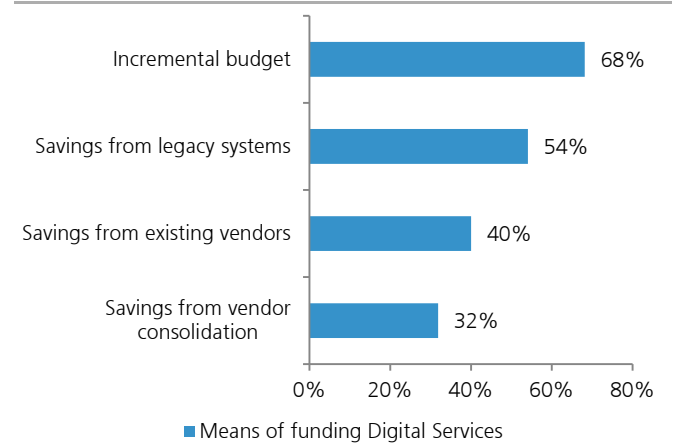
Most respondents expected investments in the cloud to leave their IT services budgets untouched, while one third expected budgets to increase due to the cloud. This is in line with our view that digital services are unlikely to shrink IT budgets per se. Over 50% of respondents expected savings from legacy systems. For large incumbent vendors, the challenge is to achieve an optimal services portfolio so that growth in digital services can offset the likely cannibalisation in the legacy business. We believe this transition will be difficult for incumbent vendors and expect revenue growth disparity to widen as some vendors prove more successful in transitioning to digital services than others.

Figure 12: Budgets unlikely to be affected by the cloud



Source: UBS Evidence Lab 2015

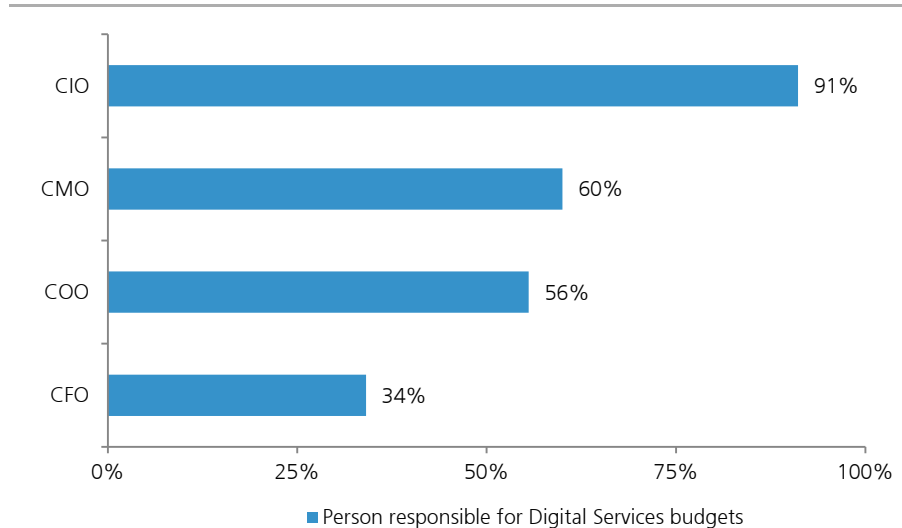
Figure 13: New budgets, cost savings likely to fund digital



Source: UBS Evidence Lab 2015

In addition to the Chief Information Officer, decision making on digital services is moving into the purview of the Chief Marketing Officer (CMO) and Chief Operations Officer (COO), suggesting greater bifurcation of decision makers in digital spending. This bodes well for the consulting-led vendors as they have strong board-level relationships that allow access outside the CIO's office. In contrast, offshore vendors have historically had a strong connection with CIOs and are currently expanding their relationships to CMO and COO offices. Offshore vendors could therefore be at a disadvantage to consulting-led global vendors.

Figure 14: CMOs and COOs have significant influence on budgets



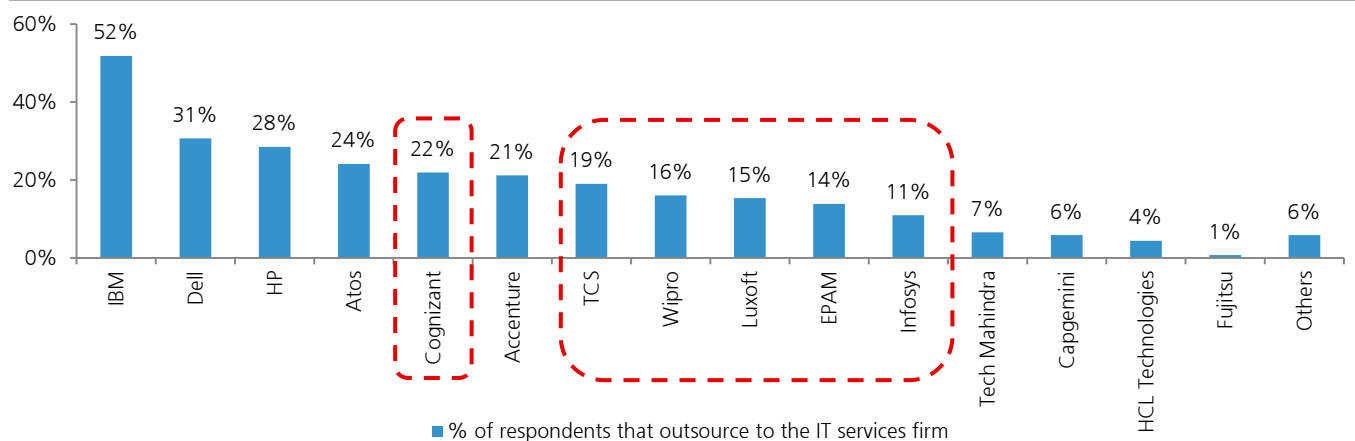
Source: UBS Evidence Lab 2015

Key conclusions

Offshore vendors rank lower, despite good revenue exposure at present

The survey results indicate that current IT services outsourcing (for legacy services) is well distributed between global and offshore services vendors. IBM, Dell and HP received the highest rankings, possibly due to their high infrastructure services exposure. However, offshore vendors like Cognizant, TCS and Wipro are neck and neck with the likes of Accenture, Atos and Capgemini. This is evident in the strong market share gains for offshore vendors in the past several years.

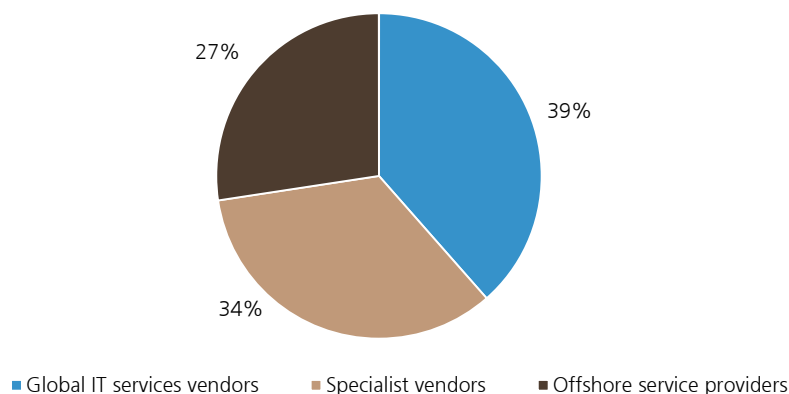
Figure 15: Offshore vendors are neck and neck with global competitors in legacy services



Source: UBS Evidence Lab 2015

However, the pattern for preferred vendors for digital services outsourcing was different. Of our respondents, 39% preferred to use global vendors like IBM and Accenture for digital services, 34% preferred specialist vendors such as Salesforce and ServiceMesh and 27% preferred offshore vendors.

Figure 16: Less than a third of respondents preferred offshore vendors for digital services

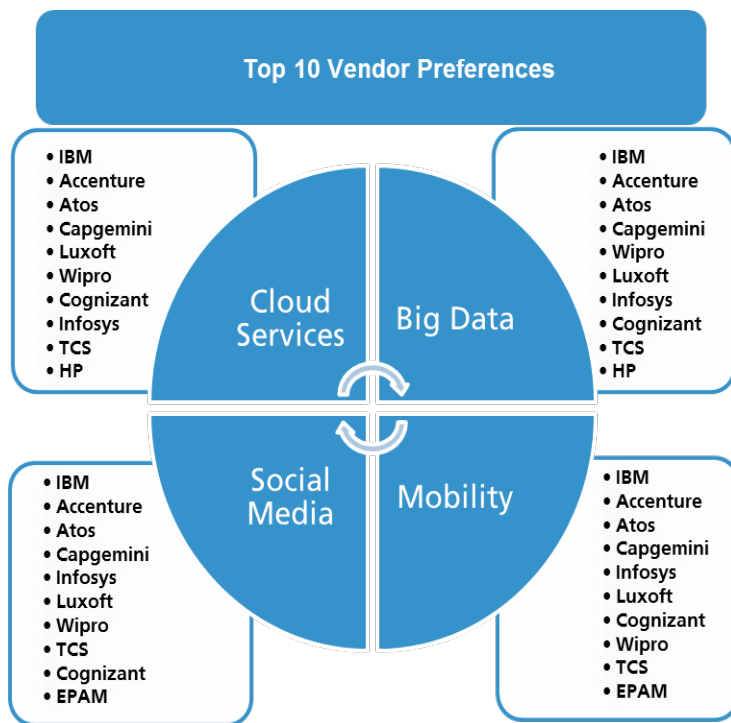


Source: UBS Evidence Lab 2015

Global incumbents, specialist vendors preferred

The preference for global vendors was pronounced in the UK (45%) and France (41%). Respondents from both countries also had much a lower preference for offshore vendors (20% and 26%, respectively). In the US, preferences were fairly evenly distributed across the three categories of vendors, suggesting the US market is more amenable to offshoring digital services. Vendors like Cognizant who have a large US presence could benefit more than other Indian vendors.

Figure 17 : Consulting-led global vendors led vendor rankings for all digital skills

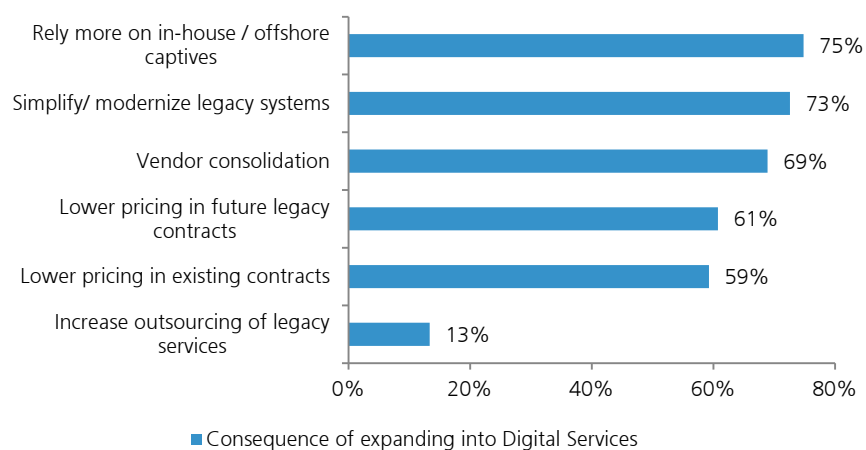


Source: UBS Evidence Lab 2015

Pricing pressure on legacy contracts evident

As expected, respondents indicated pressure on legacy systems and vendor pricing. Over 60% noted negotiations to lower pricing in both existing and future legacy contracts. Legacy simplification was also a key theme for respondents, and very few expected increased outsourcing of legacy services. Three quarters of respondents indicated increased reliance on in-house teams for digital initiatives, which is typical of early technology adoption cycles. We expect these trends to be negative for the legacy revenue exposure of large incumbent vendors

Figure 18: Pricing pressure, vendor consolidation to impact incumbents



Source: UBS Evidence Lab 2015

Vendor implications

Survey results in line with UBS Digital Services Vendor Ranking

The UBS Evidence Lab survey results mirror our own ranking of IT services vendors in digital services published in our November 2014 report. We have ranked IT services vendors on the basis of their capabilities (platforms, intellectual property, solutions) and revenue exposure to digital services. The revenue exposures also take into account legacy revenue that is potentially at risk due to technology disruption, as we believe the move to digital will be deflationary on legacy revenue. Companies with better-developed proprietary digital solutions and higher revenue exposure score better on our five-point ranking scale (one-lowest, five-highest). All ranks are relative to each other and do not extend outside the scope of the vendors discussed in this report. For instance, a rank of five for Accenture does not put it on par with Amazon Web Services or Salesforce.com on digital services capabilities.

Digital revenue disclosures by vendors are not comparable

There is no standardised scope of revenue classification for digital services. For instance, TCS includes headcount-driven models where the underlying technology is social, big data, cloud or mobility, but excludes solution-driven revenue from platforms like Diligenta, which could be considered digital revenue. With most other vendors, such details are not available. Infosys and HCL Tech for example, do not disclose comparable data. We have attempted to align the digital revenue exposure as much as possible through a combination of company disclosures, checks and UBS estimates.

Figure 19: UBS Digital Services Vendor Ranking

Company	Digital revenue (US\$ m) - 2014/FY15	Digital as % of revenue - 2014/FY15	UBS Digital Services Ranking (5 highest)
Accenture	>7,000	>20%	5
ATOS	>1,000	>10%	3
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EPAM	<365	<60%	4
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IBM	7,400	13%	4
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Source: Company data, UBS estimates

Figure 20: Preferred IT services providers in our survey by digital segment

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Atos	19%	Atos	21%	Atos	21%	Atos	21%
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Luxoft	13%	Wipro	13%	Infosys	13%	Infosys	13%
Wipro	13%	Luxoft	13%	Luxoft	13%	Luxoft	13%
Cognizant	13%	Infosys	11%	Wipro	12%	Cognizant	11%
Infosys	10%	Cognizant	10%	TCS	8%	Wipro	10%
TCS	7%	TCS	9%	Cognizant	8%	TCS	9%
HP	7%	HP	5%	EPAM	4%	EPAM	3%
Tech Mahindra	4%	EPAM	4%	HCL Technologies	2%	Tech Mahindra	2%
EPAM	4%	HCL Technologies	2%	HP	2%	HP	2%
Fujitsu	1%	Dell	2%	Fujitsu	1%	Fujitsu	1%
HCL Technologies	1%	Fujitsu	1%	Tech Mahindra	1%	HCL Technologies	1%
Dell	1%	Tech Mahindra	1%	Dell	1%	Dell	1%
In-house	4%	In-house	4%	In-house	5%	In-house	4%
Others	5%	Others	5%	Others	6%	Others	5%

■ Consulting-led global vendors
 ■ Indian IT Services vendors
 ■ European IT Services vendors
 ■ Others

Source: UBS Evidence Lab 2015

Consulting-led global vendors rank well in our ranking based on their strong solution capabilities and higher revenue exposure to digital services, which we believe is the key reason our survey respondents also prefer these vendors in digital services. Overall, Indian IT vendors rank lower in digital capabilities and exposure than their global peers. Among the India-listed vendors, we rank TCS at 3 stars as we believe it rates well in terms of capabilities and platforms. Infosys and Wipro merit 2.5 stars each, in our opinion, below TCS because they have fewer platforms, IP and solutions, although revenue exposure to digital services is similar. We rank HCL Tech and Tech Mahindra at 2 stars each due to their much lower revenue as their platforms and solutions are relatively new to the market.

EPAM and Luxoft rate 4 stars each despite the limited scale of their operations, as we believe their smaller installed legacy bases offer greater agility and flexibility to aggressively move into digital services. They also have a greater exposure to digital services, at 50-60% of revenue, the highest among the vendors analysed in this report.

Global vendors have a lead in digital

Gartner is predicting that nearly 60% of IT services spending growth¹ between 2014 and 2019 will be driven by digital technologies and their implementation. It is therefore understandable that the traditional consulting-led IT services business have put so much emphasis on this area. We are not surprised to see them leading the rankings of preferred partners, given many clients are making their first steps into digital activities and need guidance. As digital matures and 'industrialises' it will be interesting to see whether these vendors retain their high share or cede some of it.

IBM led the survey responses for most preferred vendor across all four digital technologies. This is not surprising as IBM is a significant player in SMAC technologies, which are a major part of its 'strategic imperatives' business lines that offer growth to offset sluggishness in legacy businesses. Big data and cloud are the largest contributors to IBM's own revenue. We expect IBM's collaboration with Apple to result in more than 100 new 'made-for-business apps' across a number of verticals optimising IBM cloud services for iOS, including device management, security, big data analytics, and mobile device integration via IBM's Fiberlink MDM acquisition. IBM plans to utilise more than 100,000 of its industry and domain consultants and developers to offer device supply, activation and management services for iPhones and iPads, with leasing options.

HP was in the middle of the pack for SMAC in our survey. HP has historically been more of a product company, and selling solutions, which is needed for SMAC, has not been its strong point. The upcoming split should enable HP to focus better and accelerate its digital efforts. HP's poor cloud and software efforts are potential areas for significant improvement—we expect HP Enterprise to go all-in with SMAC in cloud and software. HP expects digital services to be 25% of the target market in 2016, and about 7-10% of its current services revenue is from the segment.

Dell as a private company has focused on digital delivery and has a SMaC (social, media and community) University that has trained over 8,800 customers. Dell's Digital Business Services (DBS) line is targeting analytics and digital enablement for the small and medium business (SMB) market—a market most vendors do not target. DBS also does mobility, social, and cloud work.

In 2014, **Accenture** achieved over 35% growth in digital-related revenue (constant currency) to reach US\$7bn in sales (over a fifth of its total revenue). Since carving out a separate Accenture Digital division in January 2014, Accenture has been very active in acquiring boutiques and IP-specialists to augment its digital capabilities and now has over 36,000 staff within digital. It ranked behind IBM in all activities and all countries surveyed but was the highest-ranked of the stand-alone IT services businesses.

¹ Of the US\$170bn growth in spending Gartner expects, it believes US\$49bn will come from digital consulting and implementation and US\$52bn from cloud infrastructure as a service (IaaS) and business process as a service (BPaaS) growth (Gartner April 2015).

Atos surpassed our expectations, ranking third behind IBM and Accenture as a preferred partner in most digital activities. While French participants in the survey boosted its scores, it also polled well with both US and UK participants. **Capgemini** ranked somewhat behind Atos, with a weaker score in France offsetting a more favourable view in the US (and broadly similar UK view). Capgemini's modest outsourcing footprint relative to Atos might have played a part in this, but it suggests both vendors are getting credit for their shift to digital.

In its H115 results, Capgemini's SMAC business grew 25% YoY to reach over 20% of revenue. At its analyst day in May, Atos indicated it had about 15,000 employees in the target markets of mobility (2,000), security (4,500) and big data (8,500), or around 15% of its total workforce. It also has about 5,000 in payments in its Worldline subsidiary. Big data and cybersecurity made up just over 5% of H115 sales, while the Canopy cloud platform was on target to reach €700m in sales in 2015 (about 6% of sales).

Even though Fujitsu ranked very low in the global market, it remains dominant in its domestic market. In Japan, most IT services are outsourced to IT services providers, unlike western markets where there is more in-house development. We view this as a strong reason Fujitsu is likely to keep its strong market position—it is currently number one in terms of market share in Japan. New president Mr Tatsuya Tanaka and CFO Mr Hidehiro Tsukano are putting in place a new medium-term plan for business transformation, which we expect will drive Fujitsu to become a more digital services oriented organisation.

Eastern European vendors uniquely positioned

We see these survey results as positive for the Eastern European providers. Despite vertical concentration and much smaller client rosters, both **EPAM** and **Luxoft** scored well in vendor preference ratings alongside Tier-1 providers. With deep digital vertical expertise, they can bring capabilities and offerings similar to both specialists and larger multi-national providers. EPAM and Luxoft are viewed as strategic vendors by their clients, many times complementing internal development teams.

Initially we considered EPAM and Luxoft's competitive advantage to be their ability to offer both top of the stack exposure in complex software development and many of the cost benefits associated with offshore outsourcing. We were therefore concerned that longer term they could be at risk of being caught between cheaper Indian firms and larger high-value competitors. However, both have been successful at illustrating that their differentiation is driven by capabilities and execution first and foremost, with pricing being less of a factor.

In addition, we believe many of their clients view the vendors as strategic partners that deliver complex solutions side-by-side with clients' own internal development teams. EPAM's relationship with Canadian Tire, and Luxoft's with Deutsche Bank, exemplify this important attribute in our view. We believe both vendors have developed first-class relationship management capabilities where clients view these resources as equivalent and complementary to internal development.

We now think the competitive advantage paradigm has expanded, with clients viewing these vendors as an extension of their internal development capabilities. Most clients we speak with regarding EPAM and Luxoft do more than compliment their capabilities or execution, they offer high praise. This is exemplified by both vendors having the ability to accelerate their deal flows through client referrals.

Just as it is difficult for IT services vendors to isolate their digital exposure, we imagine surveying respondents' vendor preferences by SMAC category was also a challenge for respondents. We believe this conundrum is reflected in the results for the Eastern European providers. EPAM and Luxoft have shown depth in several horizontal capabilities, though much of their solutions portfolios could be viewed as transformational (containing several elements of each category), while they also offer digital solutions that are highly vertical specific.

For example, the UBS Evidence Lab survey showed that Luxoft had a respectable favourability rating in social. However, it does not offer social-specific solutions but has social-related elements that are embedded in other areas. Another point to consider is that several of the larger IT services providers surveyed outsource development workloads to Luxoft or EPAM, including IBM, Dell and HP.

Luxoft and EPAM received respectable vendor preference ratings in each area despite their smaller scale. Luxoft has only 150 active clients, but was preferred above EPAM, which has 650 clients, in each category. In EPAM's defence, we point out that its vertical concentrations were less represented in the survey sample—particularly the technology, business info, and media segments.

India offshore vendors need to build track record with solution-based offerings

India-based offshore vendors have gained market share at a rapid pace over the past 10 years on the strength of labour arbitrage and strong technical skill management. However, the Indian IT industry's track record of providing intellectual property-based solutions is limited. We believe this is the primary reason why IT users ranked these vendors below their large global counterparts for digital services outsourcing. In recent quarters, Indian vendors have acknowledged the need to move away from headcount-linked outsourcing models and towards IP-based solutions. However, revenue from such activity remains low at present. We think a limited track record in solution-based offerings could impact the perception of the digital capabilities of Indian vendors (collectively), and the companies need to be more aggressive in ramping up their capabilities in this area.

Indian vendors also have a high exposure to legacy spending (we estimate over 85%), where pricing pressure is already evident, as seen in reported financials. The UBS Evidence Lab survey findings reinforce our medium-term concerns that some of these vendors will find it a challenge to move to digital outsourcing models. It also validates our pricing concerns for the sector. We expect these issues to impact revenue growth and market share gains for the Indian vendors, and maintain our cautious view, with no Buy-rated stocks.

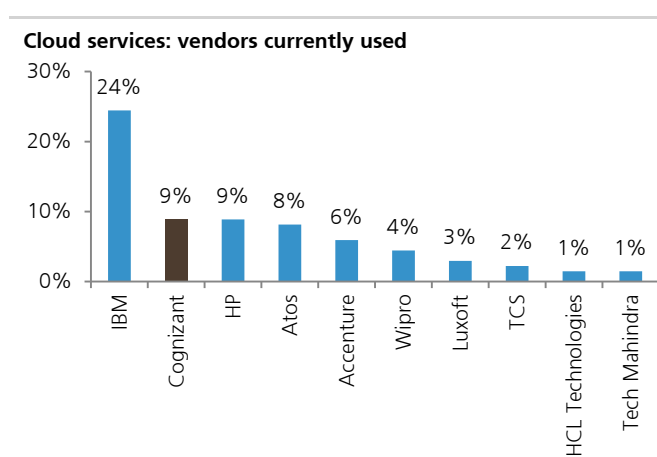
Cognizant, TCS currently fare well, but might face future challenges

TCS ranked well in current outsourcing for big data, second only to IBM, which has a strong analytics practice supported by its Watson cognitive platform. TCS expects its Digital Reimagination™ strategy to lead the company into the digital era, with a previously articulated revenue target of "a few billion dollars" in the next three to four years. In its Q2 FY16 earnings call the company announced that digital services stood at 13.3% of revenue (over US\$2bn in annualised digital revenue in FY16E). The company has a better track record with integrated solutions, with its platform-based services generating over US\$500m in annual revenue at present. We think TCS' longer-term investment horizon could enable it to make riskier investments than its Indian peers, which could have bigger rewards.

Cognizant ranked very high on current outsourcing for cloud services, second only to IBM, which has significant revenue exposure in this segment. Cognizant believes customers prefer end-to-end solutions to point products, which is causing some of the Indian vendors to be left on the wrong side of the digital divide. The company's investments include: 1) best-in-class run better capabilities; 2) digital tech at scale; 3) consulting; and 4) platform-based solutions (utility model). We think it is also well positioned among India-based offshore vendors as users shift dollars from legacy maintenance to digital applications.

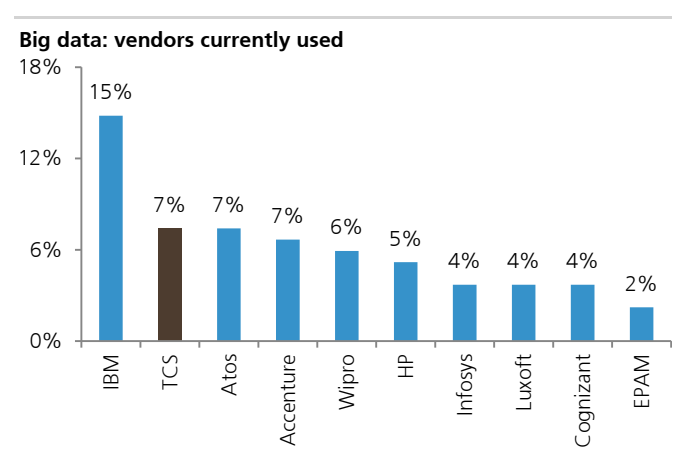
While both vendors fared well in big data and cloud, the key areas of digital spending, they fell quite sharply in rankings for future outsourcing preferences. Only 36% of respondents currently using TCS for big data analytics chose the company as the top preferred vendor, while only 50% of respondents who currently use Cognizant for cloud services chose it as their top preferred vendor. We believe both companies will need to spruce up their offerings or face the risk of losing their current leadership positions.

Figure 21: Cognizant ranked well in cloud



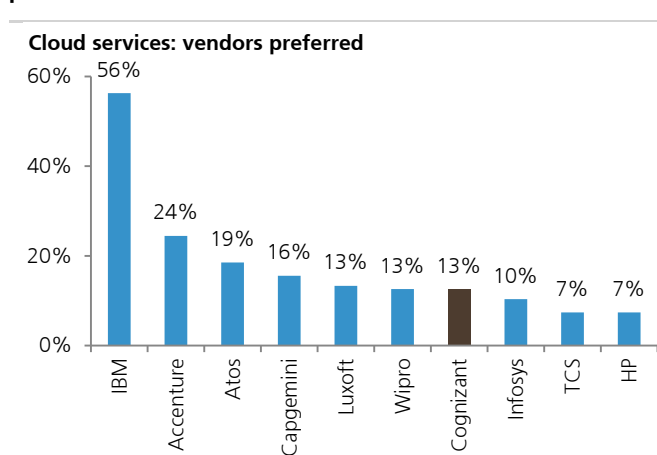
Source: UBS Evidence Lab 2015

Figure 22: TCS ranked well in big data



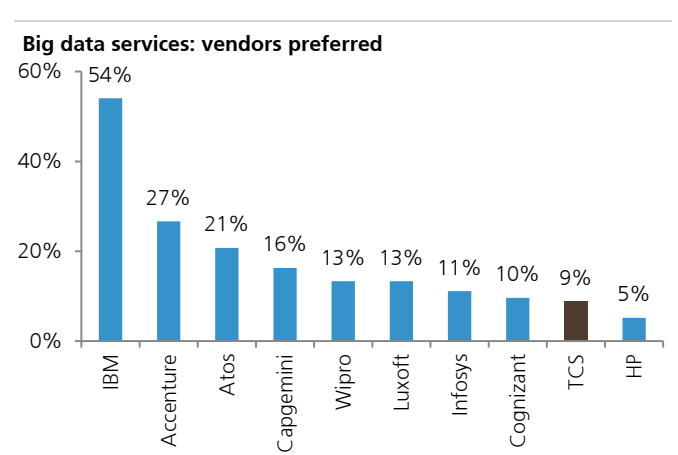
Source: UBS Evidence Lab 2015

Figure 23: Cognizant ranked lower in future preferences...



Source: UBS Evidence Lab 2015

Figure 24: ... as did TCS



Source: UBS Evidence Lab 2015

While **Infosys** ranked well in vendor preferences in social media and mobility, market opportunities in these segments might be much smaller, as evident from the lower spending intent in our survey. The company refrains from classifying any portion of its revenue as 'digital' on the view that all its service offerings are already digital. It views digital as: 1) a means of connecting hitherto physical parts of the manufacturing world; 2) Internet of Things; and 3) better customer connect etc. Under its new management it is rapidly building its software portfolio through both organic and inorganic means. We believe the pace at which the company is trying to transform will be a challenge and there is limited room for error. Infosys has a limited track record of M&A, unlike Tech Mahindra, HCL Tech and TCS, which could also present challenges as the company tries to integrate US\$1.5bn in revenue from acquisitions in the next three to five years

Wipro ranked well in our survey for cloud and big data, and recent initiatives like its cognitive platform HOLMES have been encouraging. Like Infosys, we think Wipro faces significant organisational change, and could find the transition to digital challenging. We expect it to report single digit revenue growth in FY16, the fourth consecutive year of single-digit growth, compared to our forecast of low double-digit growth for the Indian IT sector. We think the need to accelerate revenue growth could hinder the company's efforts at self-cannibalisation in order to shift to digital outsourcing models. **HCL Tech** and **Tech Mahindra** were not ranked among the 10 preferred vendors in any of the four digital technology segments. We believe this is a function of their smaller scale relative to the other Indian vendors. They also lack the high-end skillset that likely helped EPAM and Luxoft rank higher in our survey. We see a need for these vendors to fast track their digital offerings to keep up with the rest of the market.

Earnings growth and valuations

India IT: valuations are not pricing in a slowdown

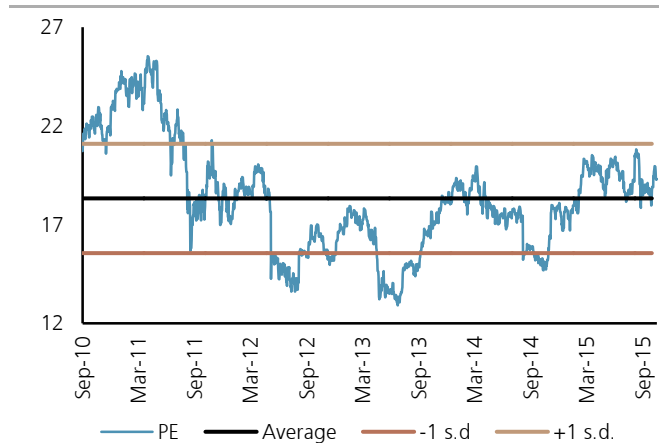
While valuations are off the recent peaks, all stocks in our coverage universe are trading close to or above their five-year average PE multiples. At the same time, both UBS estimates and consensus earnings growth forecasts for the vendors are much lower than historical trends. Historically, stock multiples in the sector trend lower as earnings growth begins to decelerate and trend up as it accelerates. Both UBS and consensus forecasts point to a deceleration in earnings momentum for nearly all stocks in our coverage universe, yet PE multiples are still above historical averages.

Figure 25: Valuations are above five-year averages

Company	Current 1-yr forward PE (x)	5-year average PE (x)	2009-14/FY10-15 earnings CAGR	2014-17E/FY15-18E earnings CAGR (UBS)	2014-17F/FY15-18F earnings CAGR (consensus)
Cognizant	19.3	18.3	22.5%	15.1%	18.7%
HCL Tech	15.4	12.6	39.9%	7.5%	10.9%
Infosys	17.9	16.9	14.6%	7.5%	11.5%
TCS	19.4	19.1	23.4%	13.5%	11.9%
Tech Mahindra	16.4	12.2	15.4%	15.8%	18.1%
Wipro	14.6	14.5	13.4%	7.4%	8.9%

Source: Company data, Bloomberg data, UBS estimates

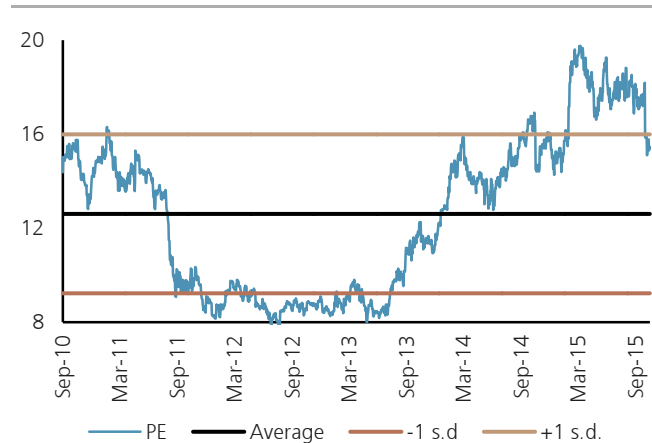
Figure 26: Cognizant closer to pricing in negative impact: 1-year forward PE (x)



Note: s.d. = standard deviation

Source: Company data, Bloomberg, UBS estimates

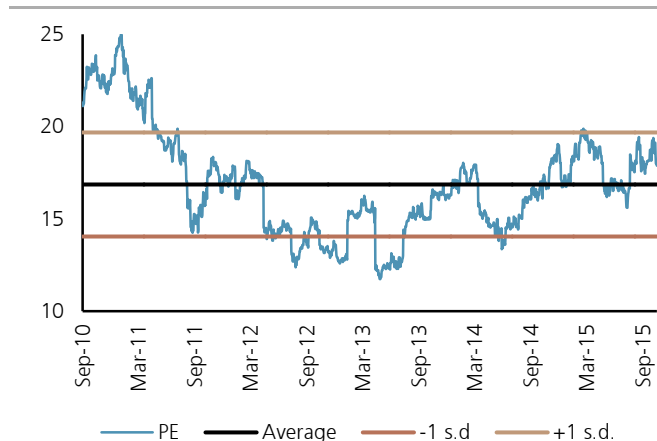
Figure 27: Impact starting to be priced in for HCL Tech: 1-year forward PE (x)



Note: s.d. = standard deviation

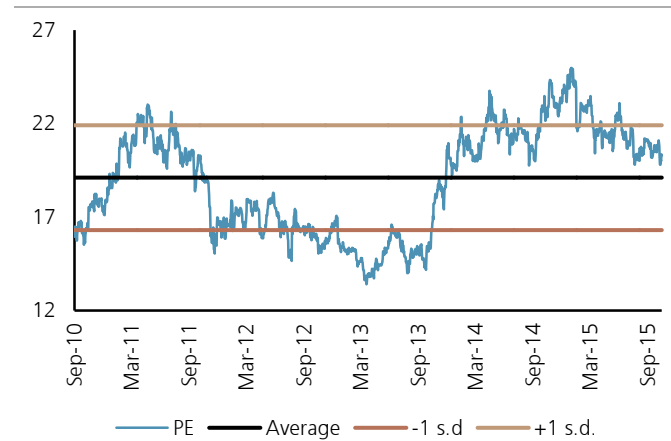
Source: Company data, Bloomberg, UBS estimates

Figure 28: Infosys could see significant downside: 1-year forward PE (x)



Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

Figure 29: TCS concerns are better priced in: 1-year forward PE (x)



Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

Figure 30: Tech Mahindra has seen significant correction: 1-year forward PE (x)



Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

Figure 31: Wipro close to average, could see downside: 1-year forward PE (x)



Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

For instance, the PE multiples of Infosys and Wipro have recorded a structural de-rating in the past two to three years as the companies' earnings growth trajectories slowed sharply. We expect similar PE trends in the next three to five years for vendors that are not successful in transitioning to digital, as we think earnings growth is likely to be significantly slower than consensus estimates.

We expect TCS and Cognizant to fare better than Infosys and Wipro in the shift to digital technologies given their high market share with current clientele, earlier investments in digital and more aggressive go-to-market strategies. We maintain our Neutral ratings as we believe valuations are fair at current levels.

We maintain our anti-consensus Sell rating on Infosys. We believe the revenue momentum in H1 FY16 is a result of the sharp price reductions offered by the company, as evident in the 6%+ offshore pricing drop in the last four quarters. The volume surge in Q1 FY16 has proven to be short lived as competition has begun to catch up on pricing discounts. We detailed our longer-term concerns in [Infosys Ltd: Vision 2020—why we are sceptical](#), published 6 May 2015. We believe there is limited room for error at current valuations. We also maintain our Sell rating on Wipro as we see limited upside catalysts despite relatively inexpensive valuations. The company is likely to take time to catch up to industry growth rates as it has to claw back market share losses over the past few years.

We maintain our Neutral ratings on HCL Tech and Tech Mahindra as they rate lower in both the survey and the UBS Digital Services Vendor Ranking. We also see limited upside from current valuations based on forecast earnings momentum.

Currency weakness unlikely to be a future market share driver

The future of IT services outsourcing is likely to be much less reliant on headcount, with utility- and automation-driven models reducing reliance on labour in IT maintenance and operations functions (application maintenance, infrastructure maintenance and business process outsourcing). In this scenario, the currency impact on labour arbitrage-driven competitiveness is likely to be significantly reduced. Our checks and vendor commentary in recent months indicate this transition has already begun, and we do not expect currency weakness to offer Indian vendors as meaningful an advantage in gaining market share in the years to come.

Eastern Europe: maintain Buys on EPAM, Luxoft

Figure 32: EPAM and Luxoft are likely to maintain strong earnings momentum

Company	1-yr forward PE (x)	2-year average PE (x)	2011-14/FY12-15 earnings CAGR	2014-16E/FY15-17E earnings CAGR (UBS)	2014-16F/FY15-17F earnings CAGR (consensus)
EPAM	24.1	18.4	23.0%	23.5%	20.4%
Luxoft	20.8	15.9	23.1%	20.3%	20.2%

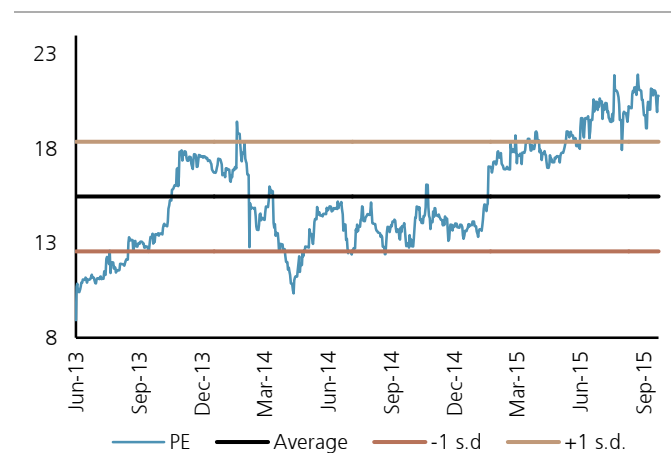
Source: Company data, Bloomberg data, UBS estimates

**Figure 33: We expect strong revenue growth . . .
(EPAM 1-year forward PE (x))**



Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

**Figure 34: . . . to sustain premium valuations
(Luxoft 1-year forward PE (x))**



Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

EPAM and Luxoft have maintained strong earnings growth momentum over the past few years and continue to deliver positive revenue and earnings surprises, brushing aside recent geopolitical concerns. We consider both companies pure plays on the growth of the high-end IT services value stack. Both have developed leading competencies in open source, big data, content, cloud, user experience, and business intelligence, and continue to leverage these capabilities in their respective delivery platforms. Both companies are uniquely positioned to capture the strong pool of application development talent from Eastern Europe, which we expect will help them stay ahead of their Indian competition on digital skills.

We have Buy ratings on EPAM and Luxoft, as both vendors have differentiated capabilities and expertise at the top of the IT services stack. With the increasing shift in demand towards digital, we continue to see share price upside potential resulting from growth surprises on solid execution and rising sentiment with an increase in tech-focused investors. We expect the PE multiples of both to rise toward the mid-20s due to sustainable revenue growth rates. We expect Luxoft to continue to trade at a slight discount to EPAM on lower liquidity and higher vertical and client concentration.

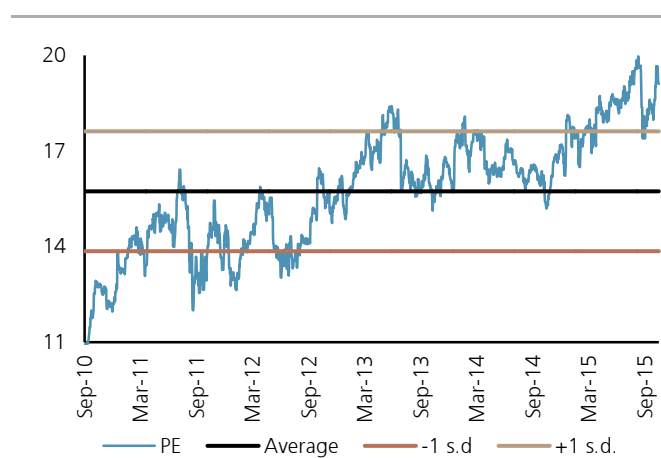
Global vendors: consider Atos, Fujitsu, HP attractively valued

Figure 35: Valuations for global vendors are relatively inexpensive

Company	1-yr forward PE (x)	5-year average PE (x)	2009-14/FY10-15 earnings CAGR	2014-17E/FY15-18E earnings CAGR (UBS)	2014-17F/FY15-18F earnings CAGR (consensus)
Accenture	19.5	16.1	12.6%	8.2%	8.3%
ATOS	11.0	12.3	10.5%	16.6%	16.5%
Capgemini	15.2	12.9	6.3%	16.3%	16.7%
Fujitsu	9.2	11.5	19.5%	2.2%	2.2%
HP	7.8	7.6	-0.6%	-2.0%	0.1%
IBM	9.2	11.4	10.5%	2.7%	1.2%

Source: Company data, Bloomberg data, UBS estimates

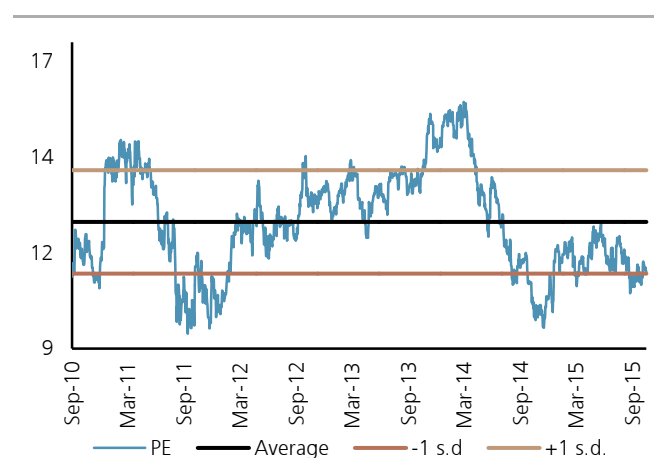
Figure 36: Accenture—upside is well priced in: 1-year forward PE (x)



Note: s.d. = standard deviation

Source: Company data, Bloomberg, UBS estimates

Figure 37: ATOS—positives are yet to be priced in: 1-year forward PE (x)



Note: s.d. = standard deviation

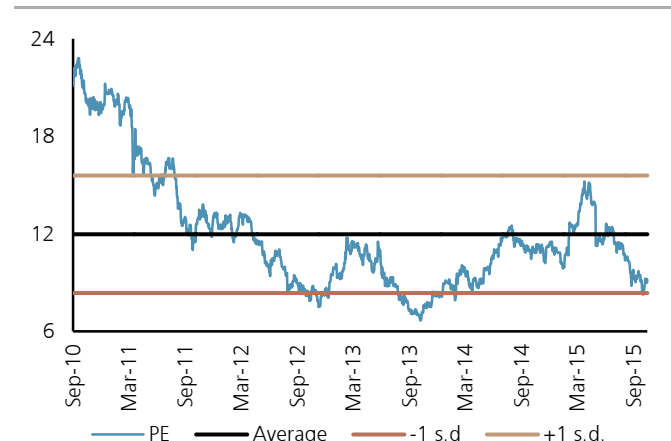
Source: Company data, Bloomberg, UBS estimates

Figure 38: Capgemini—valuations have priced in upside: 1-year forward PE (x)



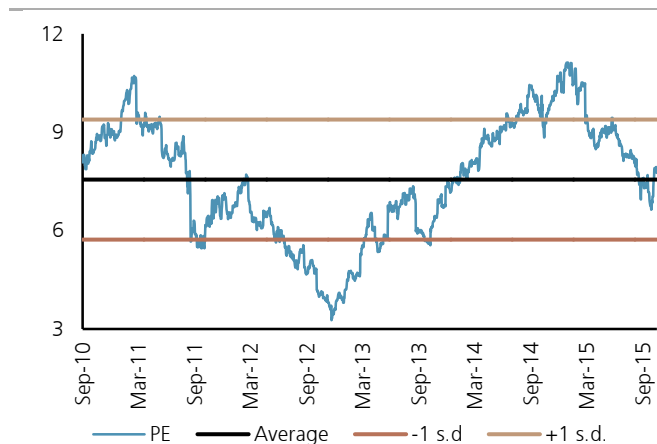
Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

Figure 39: Fujitsu—negatives are well priced in: 1-year forward PE (x)



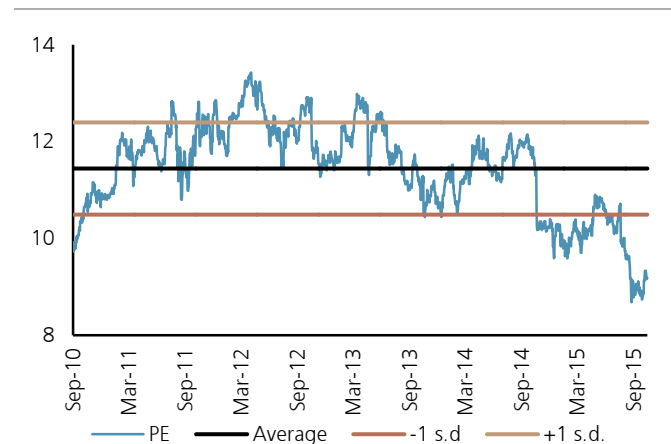
Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

Figure 40: HP—we think upside is likely: 1-year forward PE (x)



Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

Figure 41: IBM—negatives are priced in: 1-year forward PE (x)



Note: s.d. = standard deviation
Source: Company data, Bloomberg, UBS estimates

We think Atos and Fujitsu remain attractively valued relative to earnings growth expectations and maintain our Buy ratings on the stocks. While we like Accenture and Capgemini on the strength of their digital services, we consider them well valued, which we think will cap meaningful share price upside potential.

While we think IBM has built very strong digital capabilities, we maintain our Neutral rating as we think the transition to new technologies could take another three years. We see a decent risk-reward for HP at the current level. Even following recent share price declines, our sum-of-the-parts valuation still suggests a valuation in the high US\$30s, and the shares look almost oversold on a long-term chart. We maintain our Buy rating.

Atos has disappointed on organic growth and cash flow in recent quarters, but the Bull and Xerox acquisitions should better underpin the group's 2016 €500-550m FCF target. We see Atos as likely to re-rate if it delivers on its goals.

Figure 42: Valuation summary

Company	Price	Mkt. cap (US\$ bn)	Rating	Price target	Upside (%)	PE (x) FY17E/2016E	EV/EBITDA (x) FY17E/2016E	EPS CAGR FY15-18E/2014-17E (%)
Accenture	US\$102.30	64.0	Neutral	US\$105.00	2.6%	19.7	11.0	8.2%
ATOS	€69.42	7.9	Buy	€75.50	8.8%	10.8	6.0	16.6%
Capgemini	€77.86	15.3	Neutral	€89.00	14.3%	14.7	7.4	16.3%
Cognizant	US\$64.90	39.6	Neutral	US\$70.00	7.9%	18.8	11.9	15.1%
EPAM	US\$78.70	3.8	Buy	US\$87.00	10.5%	23.2	16.3	20.6%
Fujitsu	¥566.20	9.9	Buy	¥950.00	67.8%	8.3	3.7	2.2%
HCL Tech	Rs835.00	18.1	Neutral	Rs950.00	13.8%	14.4	10.4	7.5%
HP	US\$28.77	54.9	Buy	US\$36.00	25.1%	7.8	4.6	-2.0%
IBM	US\$150.09	151.4	Neutral	US\$170.00	13.3%	9.1	8.4	2.7%
Infosys	Rs1,097.00	38.7	Sell	Rs810.00	-26.2%	17.5	11.8	7.5%
Luxoft	US\$65.55	2.2	Buy	US\$74.00	12.9%	19.7	13.5	22.3%
TCS	Rs2,468.65	74.6	Neutral	Rs2,800.00	13.4%	18.6	14.5	13.5%
Tech Mahindra	Rs545.45	8.1	Neutral	Rs600.00	10.0%	15.1	9.0	15.8%
Wipro	Rs577.65	21.8	Sell	Rs520.00	-10.0%	14.3	10.3	7.4%

Above data as of 15 October 2015.

Source: Company data, UBS estimates

Statement of Risk

A sharp decline in IT spending or currency appreciation could result in downward revisions to our earnings estimates. Technology sector investing involves a high degree of risk. Rapid technological changes, increasing competition, and exposure to macroeconomic cycles are among the many risks faced by investors. Moreover, it is extremely difficult to project the financial results of tech companies since their operating models are highly volatile and unpredictable. Finally, valuing tech stocks can prove challenging, as traditional and non-traditional valuation measures have not provided much insight into how these stocks trade.

Required Disclosures

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UBS Investment Research: Global Equity Rating Definitions

12-Month Rating	Definition	Coverage ¹	IB Services ²
Buy	FSR is > 6% above the MRA.	49%	33%
Neutral	FSR is between -6% and 6% of the MRA.	40%	26%
Sell	FSR is > 6% below the MRA.	12%	18%
Short-Term Rating	Definition	Coverage ³	IB Services ⁴
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%

Source: UBS. Rating allocations are as of 30 September 2015.

1:Percentage of companies under coverage globally within the 12-month rating category. 2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3:Percentage of companies under coverage globally within the Short-Term rating category. 4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

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Company Name	Reuters 12-month rating	Short-term rating	Price	Price date
Accenture ¹⁶	ACN.N	Neutral	N/A US\$102.30	15 Oct 2015
Atos	ATOS.PA	Buy	N/A €69.42	15 Oct 2015
Capgemini	CAPP.PA	Neutral	N/A €77.86	15 Oct 2015
Cognizant Technology Solutions ^{4, 6a, 6b, 7, 16}	CTSH.O	Neutral	N/A US\$64.90	15 Oct 2015
EPAM Systems ^{16, 18b}	EPAM.N	Buy	N/A US\$78.70	15 Oct 2015
Fujitsu ^{3, 4}	6702.T	Buy	N/A ¥566.2	15 Oct 2015
HCL Technologies	HCLT.BO	Neutral	N/A Rs835.00	15 Oct 2015
Hewlett-Packard ^{4, 6a, 6c, 7, 12, 16, 18a}	HPQ.N	Buy	N/A US\$28.77	15 Oct 2015
Infosys Ltd ¹⁶	INFY.BO	Sell	N/A Rs1,097.00	15 Oct 2015
International Business Machines Corp. ^{6b, 6c, 7, 12, 16}	IBM.N	Neutral	N/A US\$150.09	15 Oct 2015
Luxoft Holding ^{5, 16, 18b}	LXFT.N	Buy	N/A US\$65.55	15 Oct 2015
Tata Consultancy Services Ltd.	TCS.BO	Neutral	N/A Rs2,468.65	15 Oct 2015
Tech Mahindra	TEML.BO	Neutral	N/A Rs545.45	15 Oct 2015
Wipro Ltd. ¹⁶	WIPR.BO	Sell	N/A Rs577.65	15 Oct 2015

Source: UBS. All prices as of local market close.

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