

Technology for growth

How emerging-world firms use ICT

Economist Intelligence Unit

September 2008

The research

An online survey of executives in emerging economies

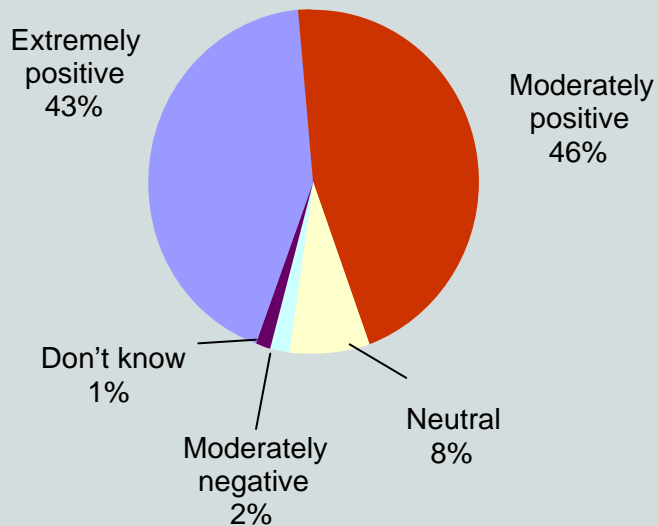
- Completed in September 2008
- 537 respondents from China, India, Vietnam, Russia, Brazil, Mexico, South Africa and the Gulf Co-operation Council
- A senior profile: 45% were C-level (CEOs, CFOs, CIOs)
- Representation from 18 industries
- Mix of large firms and SMEs; 53% with >\$500m in revenue

ICT = information and communications technology (including IT and telecoms)

The ICT impact

ICT has had a vastly positive effect on the performance of emerging-world firms

How would you characterise the impact that your organisation's use of ICT has had on its overall performance in the past five years?

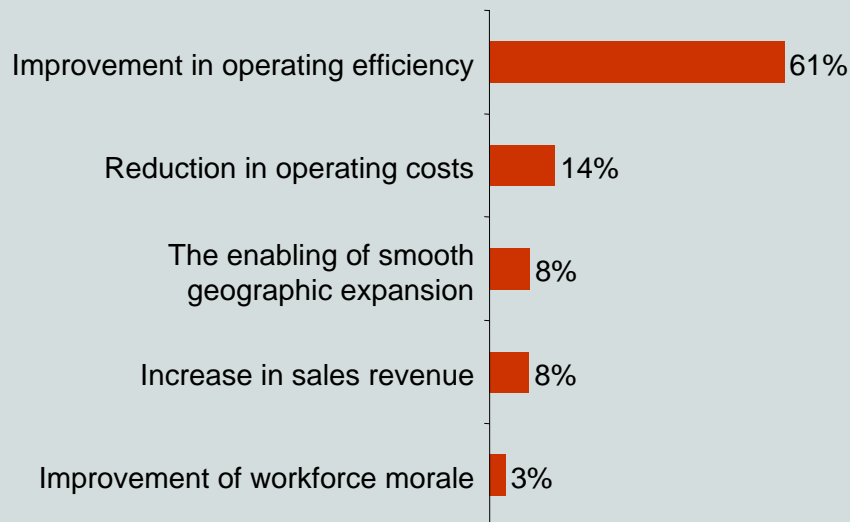


- Comparing countries, Mexico and India executives report the most positive technology impact on performance
- For most China executives, the ICT impact has been “moderately positive” (the least enthusiastic response among country survey groups)

The ICT impact

Thus far, companies have put ICT to greatest use in improving operating efficiency

What has been the most positive result from your organisation's use of ICT in the past five years?
(Top responses)



- Back-office operations have benefitted the most from technology-enabled efficiency improvement
- Customer service and data analysis have also benefitted, but firms have used ICT to lesser effect in supply-chain, sales and marketing (including online activities)

The ICT impact

Priority areas for future use of ICT centre on revenue enhancement –improving customer service and segmentation

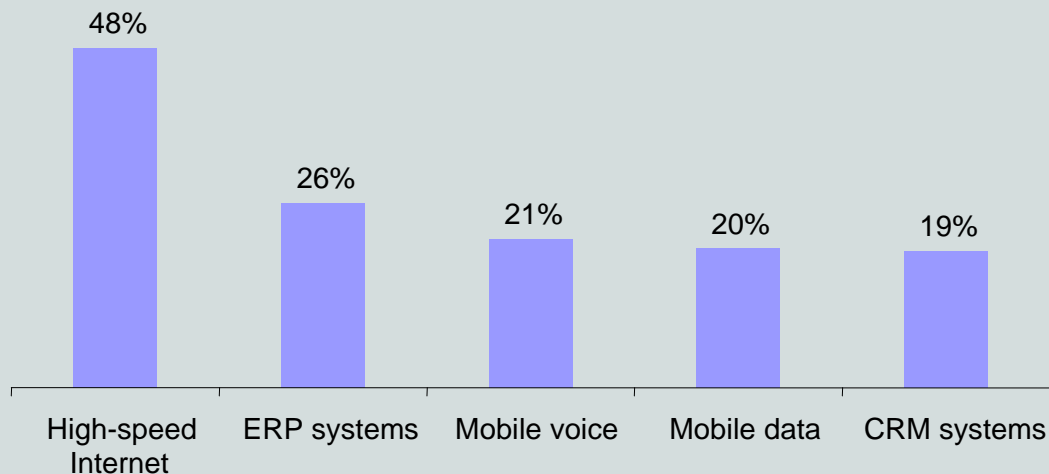
Assuming the needed technology was available to your organisation, which of these would be its priority areas for ICT investment?
(Top responses)

1. Improving customer service
2. Improving collection & analysis of customer data
3. Automating back-office processes
- China: #1 → 4. Increasing supply-chain efficiency
5. Expanding the mobility of the workforce

The ICT impact

Mobile is important, but broadband Internet has been the highest impact technology for emerging-world firms

Which of the following technologies have employees at your organisation put to the greatest business use?
(Top responses)

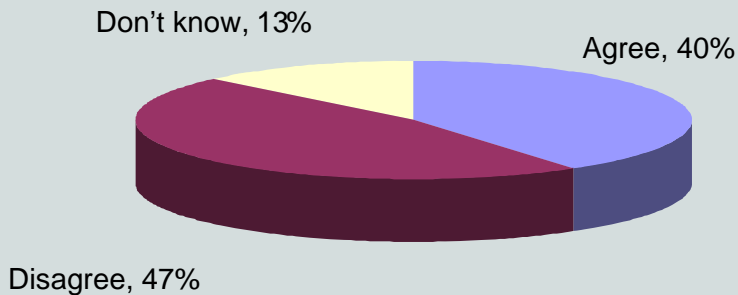


- Only in India do a substantial share of executives (34%) say that mobile voice has been among the most beneficial technologies for their firms.
- Emerging-world firms also appear to have derived substantial benefit from enterprise planning applications

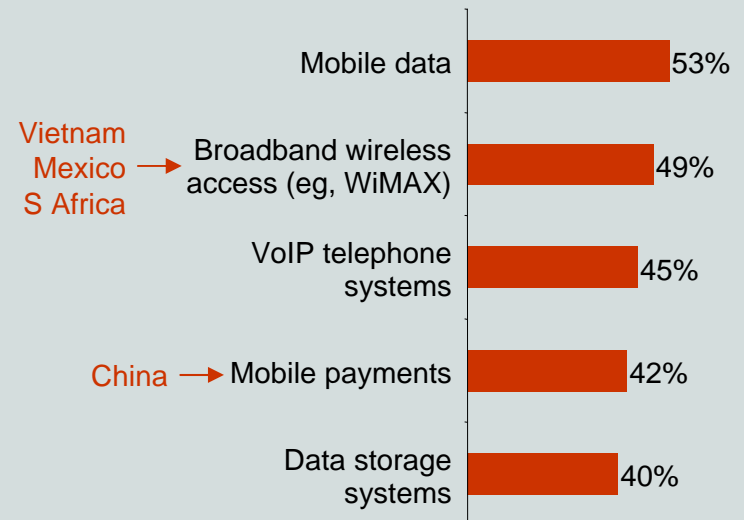
The ICT impact

Technology leapfrogging over developed nations? On balance unlikely, but mobile data has such potential

Do you agree or disagree? – “Firms in my country are well-placed to adopt and utilise certain types of ICT faster than firms in developed countries.”



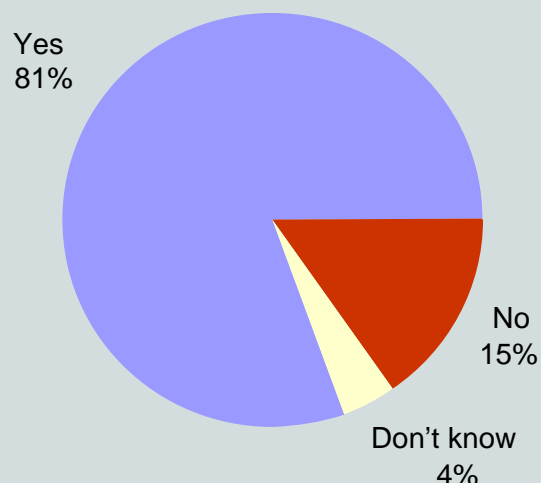
If you agree, which technologies ...? (Top responses)



Barriers to ICT use

Most firms in emerging economies appear to encounter few problems in obtaining needed technology

In recent years, has your organisation usually been able to obtain the technology it needs?



- For firms which are less able to obtain technology, high cost and restricted budgets are the main issues.

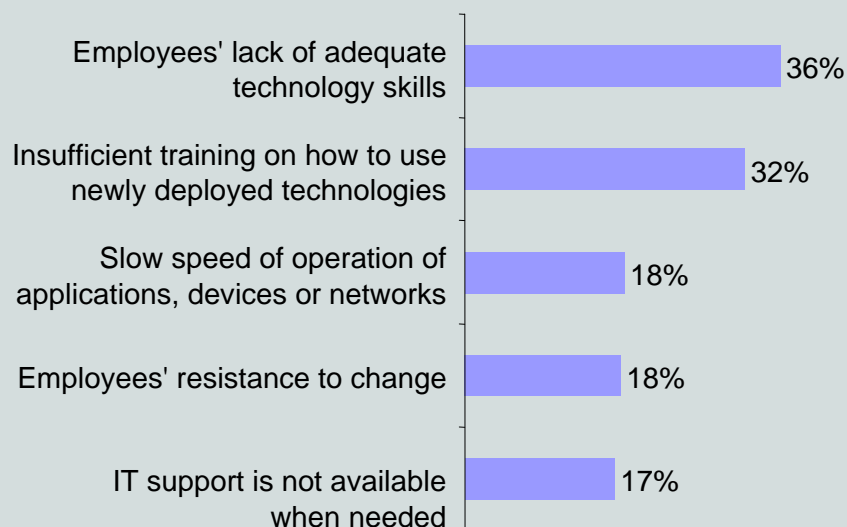
The primary reasons firms have been unable to obtain the needed technology:

High cost of technology	-	41%
Insufficient budgetary resources	-	28%
Lack of knowledge of firm's ICT needs	-	24%
Lack of employees able to use ICT	-	21%
Needed technology is not available locally	-	20%

Barriers to ICT use

But procuring ICT does not guarantee its effective use: Inadequate technology skills and training remain problems

What are the main reasons why your employees encounter difficulties in making effective use of ICT?
(Top responses)

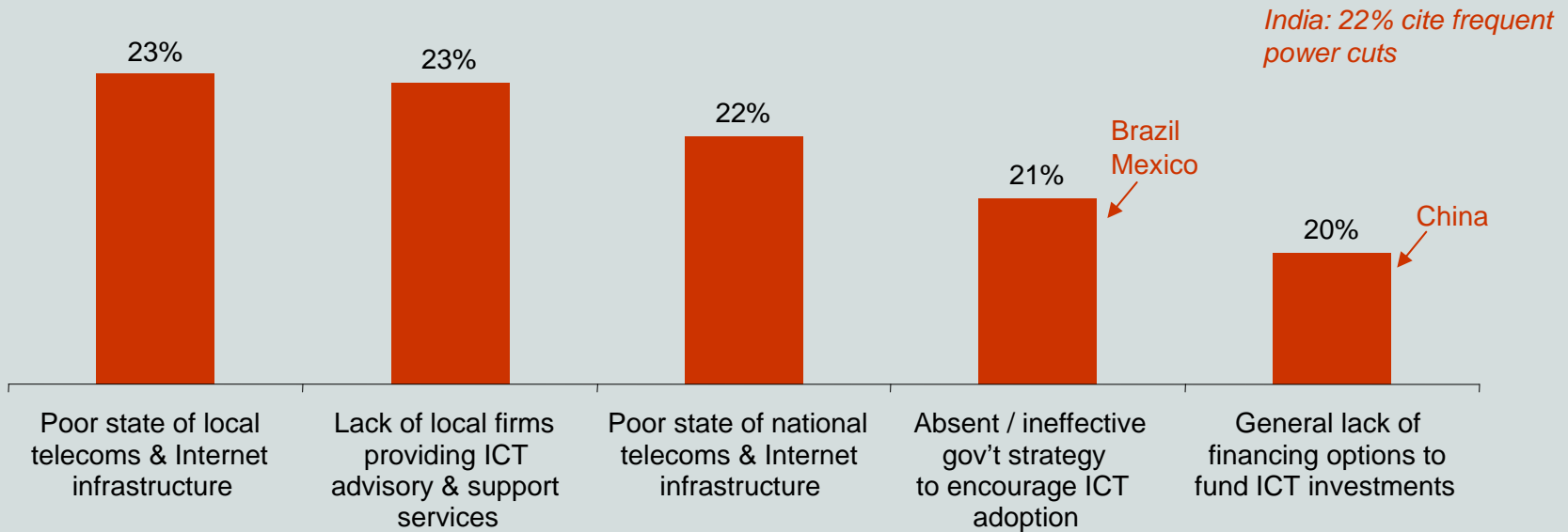


- Lack of skills and training may prove tough hurdles as firms move to the more sophisticated use of technology involved in improving revenue enhancement
- ERP and CRM have proven the most difficult technologies to master

Barriers to ICT use

Poor telecoms infrastructure and lack of tech support locally are also hindrances to better ICT use

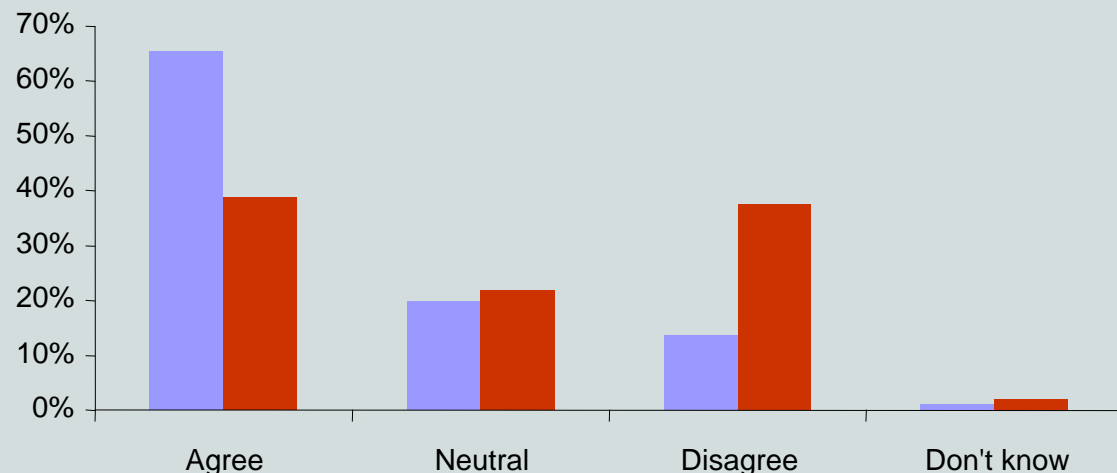
What are the main external factors that hinder the use of ICT by companies in your country?
(Top responses)



Barriers to ICT use

Emerging-world executives are confident of hiring enough people with the right technology skills

- We are confident that, over the next five years, we will be able to hire sufficient numbers of people with the technology skills we need
- We will increasingly need to recruit abroad to hire a sufficient number of employees with the right technology skills

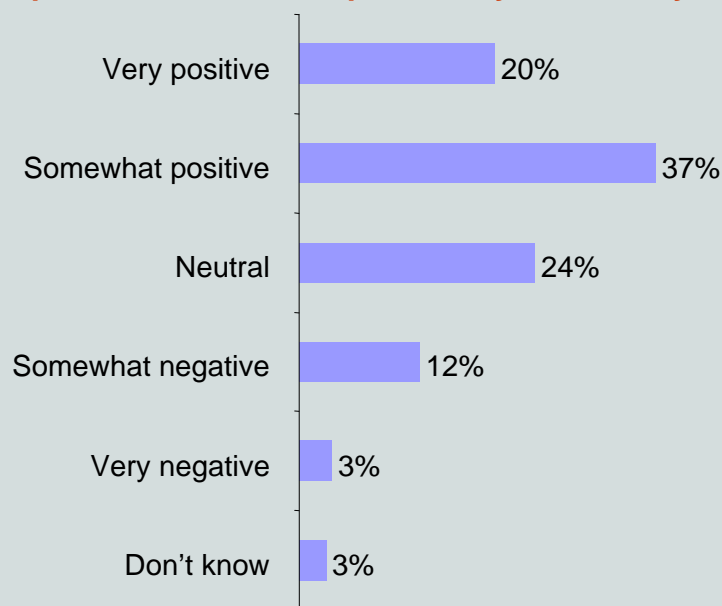


- Not all will find this talent at home: 39% say they will need to recruit abroad in order to obtain the right skills
- Firms in China, Vietnam, GCC, S Africa will need to recruit actively abroad

Policy factors

Firms give their governments high marks when it comes to encouraging the use of ICT

How would you characterise the effect of national government policies on how companies in your country use ICT?



- National governments do better than local governments, according to respondents
- China, India and Vietnam executives are the most praiseworthy of their governments' policies
- However, a large minority (33%) of respondents believe that public policy in this area is irrelevant

Policy factors

Most needed from policymakers: encouragement of FDI and competition in local ICT sector, better technology education

Which of the following public-sector initiatives do you think would most encourage the effective use of ICT in companies in your country?

(Top responses)

- *Greater encouragement of foreign investment in the domestic ICT industry* ▪ 29%
- *Policies to encourage greater competition among domestic ICT providers* ▪ 29%
- *Improving the quality of technology training in primary & secondary schools* ▪ 28%
- *Making e-government services more widely available* ▪ 26%
- *Improving the quality of technology training in universities* ▪ 25%

Main conclusions

- ✓ **ICT has been an important factor in helping emerging-world firms to grow, despite high technology costs and other impediments**
- ✓ **However, policymakers and business leaders need to address deficiencies in technology skills training, especially in schools**
- ✓ **Governments should also do more to facilitate upgrading of telecoms and Internet infrastructure**