



IT in Emerging Markets

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Emerging markets are now attracting significant interest among IT professionals and researchers. These markets represent two-thirds of the world's population, generate over 20 percent of the world's gross domestic product, and are restructuring themselves to foster further growth and socio-economic development. Furthermore, increased investments in science and technology research and development are helping emerging markets catch up with developed markets.

Realizing that IT puts them on a progressive path, they're embracing it in significant and novel ways in areas such as communication, business, education, healthcare, economic and human development, and government. New opportunities exist for the IT industry and emerging markets to embrace each other. This special issue presents a snapshot of IT's progress and potential in such markets and the related challenges IT professionals and policy makers must address.

IT's Significance to Emerging Markets

Contrary to what some might say, IT matters greatly to emerging markets. A tectonic shift—driven by globalization; social, economic, and political liberalization; workflow and task automation; and improved education and training—is

changing the face of emerging markets. Emerging economy countries are enthusiastically adopting IT. Just like corporations in developed nations, micro-, small-, and medium-sized businesses and emerging social enterprises in these markets need technology-based solutions to improve their productivity, increase revenues and profitability, drive innovation, and meet customer demands. Furthermore, individuals and societies that embrace IT can improve their quality of living.

Developing countries are building new infrastructure, bypassing the adoption of legacy infrastructures. For example, India, South Africa, and other countries have leapfrogged landline telephones to adopt the latest in wireless telephony. Developing countries are also revolutionizing mobile banking and mobile health¹—examples include Arica's M-Pesa mobile money transfer and India's Inter-Bank Mobile Payment Service (www.npci.org.in). (For more information, see the related Spotlight department in this issue.) The IT industry in many of these countries has grown stronger and is attracting major global investments and IT vendors. Furthermore, companies are increasingly outsourcing IT work and business activities to emerging markets.

IT is a catalyst for the socio-economic development of emerging markets. However, emerging

markets can influence the IT industry as well. As much as emerging markets need IT to solve their real-world problems, the IT industry similarly needs emerging markets for continued growth and long-term survival.

Prospects

People in emerging markets—rich and poor, literate and illiterate, young and old, professionals and nonprofessionals—are increasingly using mobile phones (even the simplest, low-end phones) to solve their real-world problems. They're also increasingly using the Internet and IT in new ways. According to a report by the Boston Consulting Group,² by 2015, China will add almost 200 million Internet users for an online population of 700 million—more than the US, India, Japan, and Brazil combined. Also around 2015, China will likely become the largest online retail market in the world. Powerful incumbents in core areas, such e-commerce (Alibaba.com) and search (Baidu.com), are consolidating their positions to move into new fields and compete in the global arena.

The number of middle-class consumers in Asian and other emerging markets is rapidly increasing, exerting significant influence on products and services. Compared to their counterparts in the US and Europe, these consumers differ in their preferences,

demands, and habits.³ They comprise a younger population that's not necessarily concentrated in big cities and that embraces online shopping and a variety of online services. Vast business opportunities lie in addressing the demands of the middle class in these markets. Enterprises can't afford to ignore these potential customers.

IT professionals can significantly affect emerging markets. They can help improve the lives of billions of people at the bottom of the pyramid by offering IT-enabled solutions that matter to them and, in doing so, they too can benefit from these associations. However, to capitalize on the opportunities that emerging markets present, IT professionals must recognize that these markets have different requirements from developed markets. The products and solutions offered should address societal needs of the masses in these areas, provide added value, and be cost-effective and affordable. IT applications must also address cultural sensitivities and users' linguistic preferences.

Embracing these new opportunities also raises many questions among IT professionals and policy makers in both mature and emerging markets. What innovative applications might better serve the interests of emerging markets? What new developments in IT could serve the special requirements of emerging markets in areas such as interface design, information presentation, and adoption of local languages? What IT infrastructures and application frameworks are better suited for emerging markets, and how can we offer IT hardware, software, and services at lower costs?

To capitalize on the opportunities that emerging markets present, enterprises must cater to the market's diverse needs and preferences in innovative ways.

In This Issue

We provide a glimpse of IT in emerging markets through five feature articles and four invited Spotlight departments. The first article, "How ICTs Affect Democracy and Corruption in Emerging Societies," analyzes the role of information and communication technologies (ICTs) in political transformations in emergent societies and how these societies are leveraging IT to address corruption.

Second, "Group-Buying E-Commerce in China," reviews major Chinese group-buying sites and offers guidelines to practitioners to improve their designs.

Next, "ICT Trends in Brazil" argues that for a prototypical emerging economy like Brazil, ICT can help improve competitiveness in the global market in IT and other areas—not just relating to commodity exports.

In "Dreamcatcher: IT to Support Indigenous People," the authors describe a tool that helps indigenous people negotiate with governments and other players to retain their traditional knowledge and culture.

Finally, "Sustainable ICT in Agricultural Value Chains" outlines the development of a methodology and generic architecture to improve value chains in African countries.

In addition, we present four invited spotlight articles, focusing on IT in Argentina, IT in India, mobile payments in emerging markets and their societal influence, and a new middleware for digital television in Latin America.

IT's role and growth in emerging markets will be significant. The opportunities that these markets present have yet to be fully tapped. IT professionals must focus on innovations in technology, design, service

delivery, and business models to make further inroads into the world's emerging markets. As the American writer, businessman, and philosopher Elbert Hubbard once cautioned, "The world is moving so fast these days that the man who says it can't be done is generally interrupted by someone doing it." Many real-world examples from emerging markets, a few of which are highlighted in this issue, attest to this statement.

We hope these articles inspire you to explore new roles and applications of IT in emerging markets. We also hope they provide insights for capitalizing on IT's untapped potential in these regions. ■

References

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