



The Curious Case of e-Governance

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A key role of government in developing economies is building institutions that support firms over their lifecycle. However, real politics creates immense regulatory rigidity. IT presents a tremendous opportunity to address corruption and efficiency, yet it must incorporate appropriate investments in reducing regulatory rigidity and strengthening institutions.

What makes a country *developed* or *developing*? Historically, the distinction has been between high-income countries (developed) and middle- and low-income countries (developing). Today, the World Bank classifies countries into four broad categories: high, upper-middle, lower-middle, and low income. Colloquially, we use developed versus developing all the time, as if there's a clear distinction. The notion of developed is a proxy statement for a high-income economy with a gross national income (GNI) per capita above US\$12,475, where it's easy to live and do business. One signature of a high-income economy is its strength in developing efficient markets for the private sector to thrive, both locally and across borders. Developing countries are low- and middle-income economies that work off a lower capital base, and assuming political stability, tend to achieve significant returns from capital investments, leading to higher gross domestic product (GDP) growth.

Governments globally play an important role in ensuring market efficiency. How? First, they provide physical infrastructure, such as airports, bridges, and roads, which are essential to economic growth, especially in emerging markets. The World Bank estimates that the elasticity of GDP with respect to infrastructure capital is on the order of 1–2 percent for developed economies versus 15 percent for developing countries. This is exactly the high returns reaped by capital investments in low-resource environments. But, equally

if not more important is the second role of governments: creating strong institutional infrastructure and norms. Government regulations support the entire lifecycle of businesses via this institutional infrastructure. It establishes appropriate regulations around key aspects of a firm's lifecycle – such as starting a business, acquiring property, and getting electricity all the way to trading across borders. One popular example, and probably the least disputed one, is the regulation of anticompetitive behavior. A competition authority uses a regulatory framework to determine if, for example, a company has engaged in behavior that purposely undermines another firm in the same market. In general, the more efficient the public sector agencies are at implementing regulations in support of essential business functions, the more that businesses can focus on their core activities. If only it were that easy ...

Delivering Public Goods

Imagine a situation where you want to buy your favorite sneakers online. You select the color and size you want, enter your payment details, and hit the “buy” button. The online vendor now sends the request to procurement, who verifies that the sneakers are in stock and requests a shipment from the warehouse to your address. The warehouse will bundle the shipments with the logistics provider so that you soon enjoy your new sneakers.

Now imagine a different process. The procurement representative calls you and verifies your

payment details and your order. After verification, the agent will send you a signed procurement form to be co-signed by you. You are now kindly requested to drive to the warehouse and physically drop off the procurement form, co-signed, at an office, which will then take 24 hours to validate it. A day later you get a call that your shipment has gone out and will be delivered to a collection center. You are sent a shipment notification slip, which you will then take to the collection center, with an additional copy of the procurement form. Five days after the day of order, you eventually enjoy your new sneakers.

No enterprise in its sane mind would ever expose a client to such a process. The value-add provided by the seller is that the customer is exempted from all the back office processes. The imaginary example started with what is reality today, a one-click shopping experience that delivers your goods at the right time to the right place. A quick look at the government services that enable businesses, however, makes our imaginary “bad process” look efficient. You do not have to go as far as an African country that you know little about. Starting a business in Germany takes nine procedures, forcing a business owner to interact with more than five different organizations. Even though most other services in Germany are extremely efficient, there are more than 100 countries in the world more efficient than Germany in supporting new entrants to the private sector. This number is not an estimate, but there’s proof, and we’ll get to that shortly.

Process engineering and the use of IT to automate tedious, manual processes has led to tremendous efficiencies in business operations and client service. In fact, in developing markets, some enterprises have adopted a mobile-only approach to engage with their customer base. It’s hard to argue that the emergence of “online at large” has not generated significant improvements in customer experi-

ence. If the private sector can do this, what’s holding back the public sector?

Real Politics

A private sector enterprise makes up its own rules about how to engage its customer base and how to fulfill services. In an efficient market, an enterprise can decide to automate whatever it deems necessary to increase revenue or profit or both. Equally, private sector firms might decide against efficiency, as the cost of implementation might outweigh the benefits. In short, firms are focused on the customer segment they are serving. They are not concerned about public good.

A government, on the other hand, is elected to serve their citizens and represent national interests. Basic infrastructure as well as services provided under institutional infrastructure are public goods – that is, they must be provided so that no community gets disenfranchised. Governments do this by creating regulatory frameworks that get ratified in an appointed governance body, such as a parliament in most democracies.

It is entirely possible to create a widget that automates the process of starting a business, but it might violate the law. Changing the law to facilitate the deployment of the magic widget could require political will, as the process will likely cut across a variety of government stakeholders. Real politics might require a political stakeholder to engage in a give and take to push the agenda. We are not alluding to money changing hands, but more to members of government agencies trading favors to ultimately benefit their constituencies. Thereby, the question of delivering a public good ultimately becomes a question of personal incentives versus national interest. Reaching consensus requires many political transactions to be completed. This is real politics. And this is how almost all government systems work.

This sounds worse than it is. After all, the foundry of every functional

democracy is to come to consensus on a variety of choices that ultimately benefit national interest. Unfortunately, decisions are often based on too little evidence, as generating evidence is costly. Hence, real politics are often less about evidence and more about opinion. Technology in general, and IT specifically, should be agnostic to opinion, but rather prove itself by improving efficiency.

The importance of efficient government services cannot be underestimated. Convolved processes in economies with weak institutional infrastructure introduce exactly those systemic behaviors that are counter-productive to providing public goods. The weaker the institutional infrastructure and the more client touch points, the greater the opportunity to accelerate processes through bribery. Thereby, process efficiency is introduced for only those who have the means. In other words, providing an inefficient government service in support of delivering a public good might be counter-productive, as it disenfranchises those who either do not have the means or are morally inclined to not engage.

Corruption is an issue across all economies, but especially in emerging economies, it can be a hindrance to economic growth. It’s unreasonable to believe that corruption can be fought overnight or that it just takes political will to eradicate it. It’s far more complicated than that. However, looking at solutions to address corruption through the lens of efficiencies in institutional infrastructure could ultimately make it harder for corruption to succeed. Regulatory rigidity stands in the way of efficiency, as regulations are usually less prescriptive on inputs but more outcome-based. Every client touch point is prescribed and thereby non-negotiable at implementation time.

The perfect world, or the “consultant’s dream,” is one where the government describes the required outcomes and service-level agreements for the delivery as a mandate to the implementing

agencies. That is, the average waiting times for process x cannot be longer than y . The reality in government is not like that and there's work to be done to improve the institutional infrastructure, especially in emerging markets. However, before we can improve institutional infrastructures and reap regulatory efficiency, we need to know how to measure it in the first place.

Measuring the World's Regulatory Efficiency

The ease of doing business (EODB) index of the World Bank Doing Business project (www.doingbusiness.org) is one globally used measure of business regulations. Established in 2003, the index is a global ranking of countries, based on each country's performance on 11 indicators that measure the efficiency of service delivery processes and the strength of regulatory and judiciary institutions. Each of these indicators measures, from a client perspective, the efficiency of a part of the lifecycle for establishing and managing key functions of a business, from services as basic as starting a business to more complex functions such as trading across borders. For each of the 11 indicators, the index measures the time taken, the process steps, and (through sub-indices) regulatory strength. The client is assumed to be at least a small or medium enterprise with sufficient starting capital.

For example, the indicator "starting a business" measures the number of procedures needed to start a business, the time it takes to complete all the necessary procedures, and the cost associated with the process. "Enforcing contracts" measures the ability of the judicial system to resolve commercial disputes and includes the quality of judicial processes, in addition to the time to resolve disputes and the costs of resolution. The quality of judicial processes is a sub-index that, broadly speaking, categorizes the regulatory support provided to get disputes resolved expeditiously. For example, are there regulations dictating service-level

agreements, is it possible to file an initial complaint electronically, and are judgments publicly gazetted? All of these measures are collected through surveys and the final index is translated into a relative rank.

How are low-income economies faring against high-income economies? Figure 1 is a visualization of all the indicators and total rank for two regions: high-income Organization for Economic Cooperation and Development (OECD) countries shown in blue and countries in sub-Saharan Africa shown in brown, the latter of which are almost all low-income economies. In general, the EODB rank correlates positively with GDP per capita, indicating that developed country governments are more efficient and exhibit better institutional strength than developing countries.

What Happened in Azerbaijan?

Chances are you have to look up Azerbaijan unless you are from the area. Azerbaijan is an upper-middle-income economy that has completed its post-Soviet-era transition into an industrialized oil- and gas-producing country. In terms of GDP, the country had double-digit growth, at times almost doubling GDP year to year during the oil boom 2003–2007 (see <http://data.worldbank.org>). As in many countries with oil, diversification of the economy is essential to continued growth. Azerbaijan had started to address issues with its ability to enable entrepreneurship. Figure 2 shows the time it takes to start a business against the number of procedures it requires in a given year. Between 2005 and 2006, the government of Azerbaijan reduced the time taken without reducing the number of procedures. Reduction of time is a matter of reducing process inefficiencies and might not necessarily require regulatory changes. The regulatory framework, however, sets a natural limit to what can be achieved without such regulatory changes and hence, pure process improvements are likely to have diminishing returns.

Between 2007 and 2008, we observed a reduction in the number of procedures. A procedure is typically a single implementation of a regulatory requirement. As government processes are spread over multiple agencies (think the Ministry of Tax, the Judiciary, and so on), the law dictates the rules by which each agency must support the process of starting a business. Changing the number of process steps thereby implies a regulatory reform, or as in the case of Azerbaijan, a presidential decree that mandated a one-stop shop for everything related to starting a business. However, this came on the heels of some already significant changes. Think about it as an organization just realizing that exposing the client to every backend decision might not be such a good idea after all, just as in our imaginary sneaker-buying example.

The one-stop shop approach has become quite popular in many countries. Instead of asking an entrepreneur to go to every single government agency and fill out a form specific to the agency and the regulation it is implementing, a client fills out one form, submits all relevant material to one window in a single, typically newly formed organization. This approach separates the client from the backend processing of a request.

The one-stop shop also has become a precursor to online registration. Azerbaijan, and other countries like it, have moved toward automation and online registration of businesses, thus minimizing the number of procedures. The benefit of using IT at this point is usually on the cost side. The cost of delivery will be marginal for an online system, as compared to setting up offices and requiring your clients to come to a physical office. This is the true benefit of IT. For example, many African countries are sparsely populated and establishing effective and accessible government services for people will be extremely costly. Mobile-delivered government services could lead to inclusion, just as mobile money

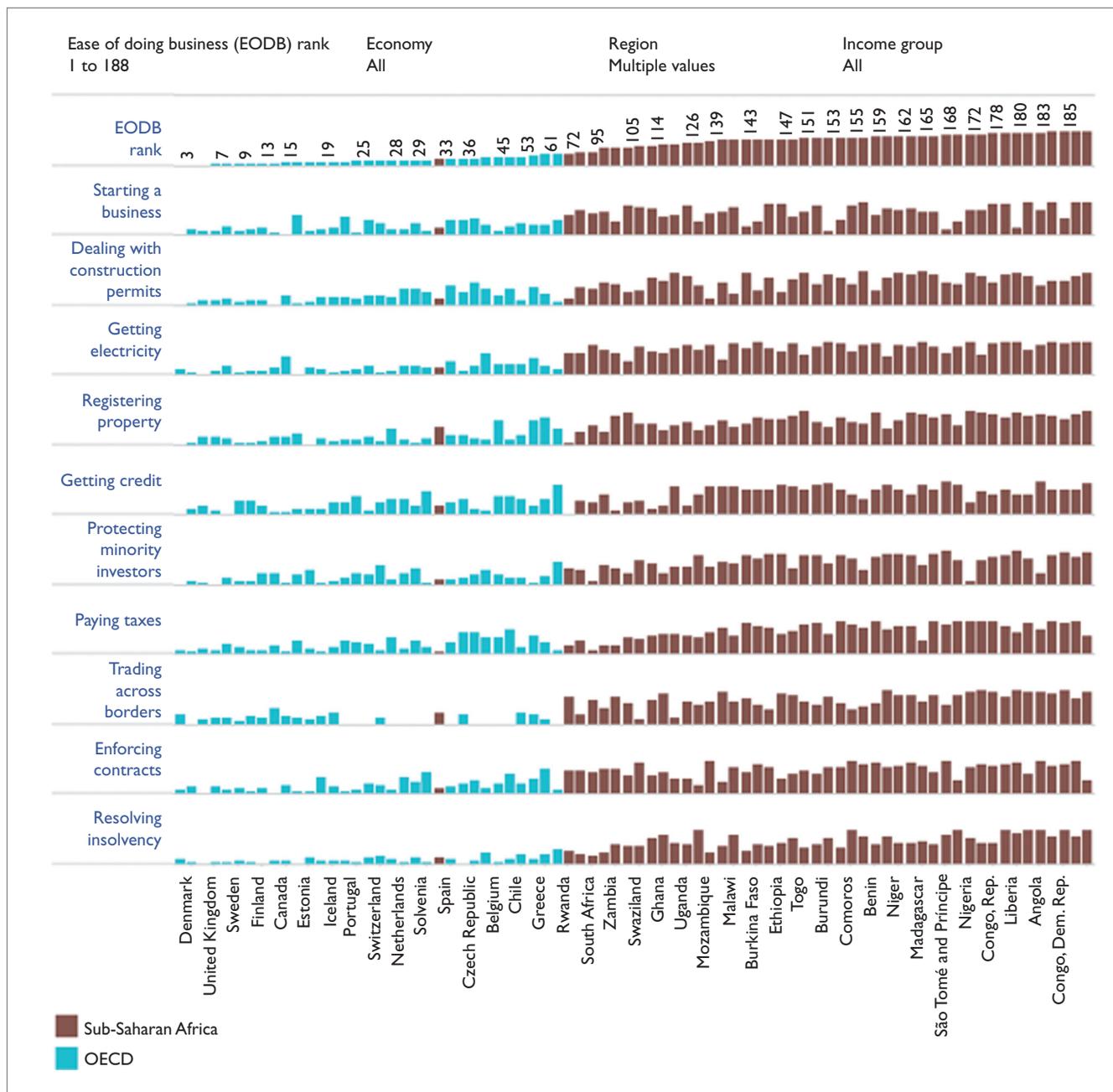


Figure 1. Visualization of ease of doing business (EODB) indicators comparing Organization for Economic Cooperation and Development (OECD) countries with sub-Saharan African Countries. (Source: <http://blogs.worldbank.org/opendata/visualizing-world-business-regulations>.)

has resulted in the financial inclusion of remote clients.

However, creating efficient institutional infrastructures does not necessarily guarantee the effects that someone desires. The incentives for the president of Azerbaijan in 2007 were clear. The end of the oil and gas boom was foreseeable and improving the business regulatory

environment seemed an essential first step to diversifying the economy. That hasn't materialized yet; the country's GDP still depends predominantly on crude oil exports and has risen and fallen with the price of oil. Institutional infrastructure is necessary, but clearly it is not sufficient for economic growth. The latter requires the willingness of economic

institutions to take the necessary steps toward diversification by, for example, providing support for entrepreneurs in areas outside of the core machinery.

The Importance of e-Governance

Azerbaijan is just one example of many economies that have improved

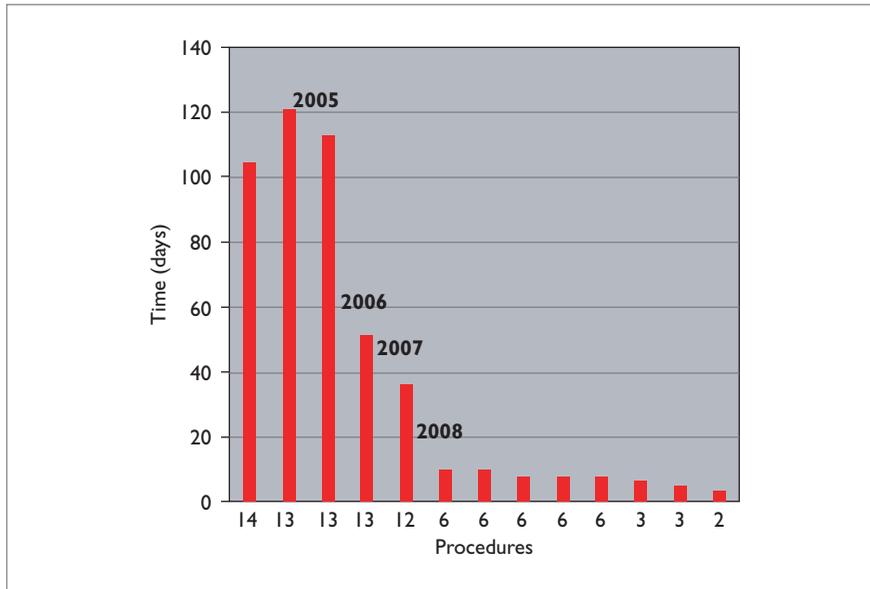


Figure 2. Time needed for completing the steps to start a business in Azerbaijan, given the number of procedures required. In the first part of Azerbaijan's transformation, the time to completion changed without changing the number of procedures. In 2007, the number of procedures were reduced significantly, implying regulatory changes to drive higher efficiency.

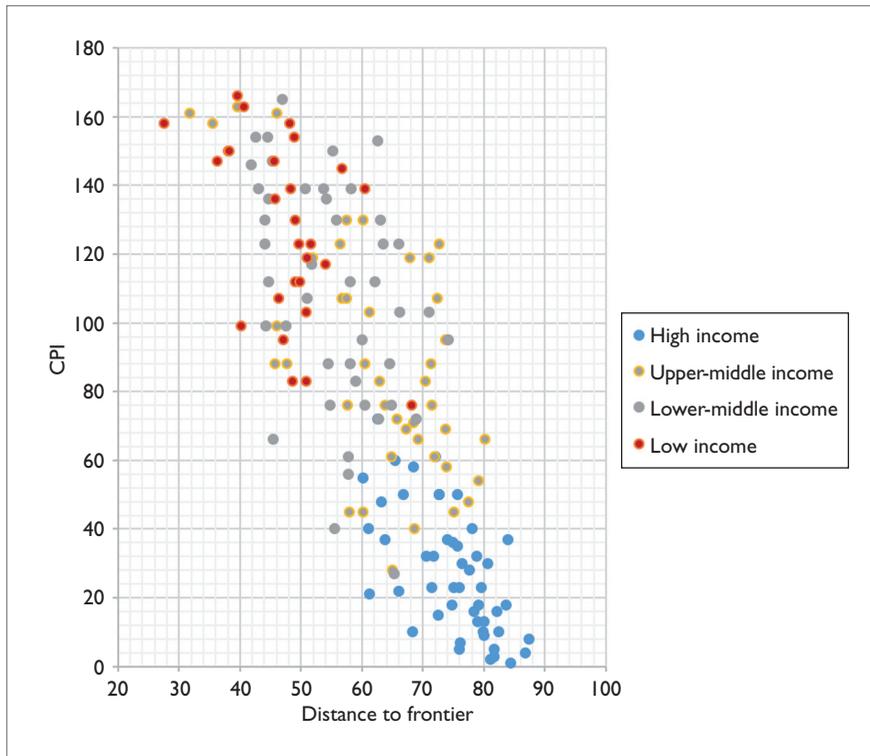


Figure 3. Corruption perception index (CPI) rank against the distance to frontier for a given country. A low CPI rank indicates a less-corrupt country. A lower distance to frontier implies weaker business regulations and a higher perception of being corrupt.

or are improving significantly. Most success stories today are of countries that were growing economically due to their resources or strategic position. A few African countries, such as Rwanda or Kenya, are starting to embark on the same path with significant, albeit initial, success. A presidential decree declaring what needs to be done, even if it is in a country's best interest, is not necessarily how most democratic nations work. The tedious process of consensus building is what often inhibits the timely completion of reforms. However, it builds one truly important part of the institutional infrastructure: the political process. Regardless of whether you think presidential interventions are efficient, the question is where do you draw the line? The EODB framework does at least provide guidance on where interventions might be necessary. For Azerbaijan, it did not happen overnight and, in fact, a number of improvements had already taken place to even make the decree useful.

Basic infrastructure is another important aspect that influences the strength of firms and is a part of the EODB indicators. For example, many developing economies face challenges in reliable energy distribution. These countries are limited in how much they can improve on the EODB rank when it comes to indices that include basic infrastructure measures. This ranking does not take into account that businesses in areas with unreliable energy supply find workarounds, such as diesel generators, uninterruptible power supply (UPS) systems, and so on. As with so many things in life, what starts out as a workaround often becomes the norm and part of the cost of doing business. That said, the EODB ranking sets the tone of the discussion around improvement and provides a way for economies to reason about progress.

Introducing e-government is not as much a technology challenge as one that requires patience and a strategic approach by first reducing process

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inefficiencies; second, driving regulatory change; and third, IT automation – in that order. Dropping the widget is not an option. The World Bank Doing Business project’s index is very far from perfect, but it serves as a useful framework to set goals. The more developing economies strive toward improving their ranking by focusing on specific indicators, the better the institutional infrastructure becomes. The better the institutional infrastructure becomes, the fewer client touch points will be required. The more optimized the processes, the easier it will be to automate back offices and transform front office experiences through IT.

The more removed the citizen is from the delivery of government services, the harder it becomes to bribe and be asked for a bribe. IT can do its part in creating the right level of transparency. Figure 3 shows the corruption perception index (CPI) rank, released every year by Transparency.org, for a given country against the “distance to frontier” rating for the same country. Distance to frontier is a measure that describes the distance of any given country to a perfect EODB performer. A low CPI rank indicates a less-corrupt country. Being careful not to compare apples to oranges, it’s fair to say that the trend indicates that high-income countries (blue dots) that have better institutional infrastructure tend to be perceived as less corrupt. A lower distance to frontier implies weaker business regulations and a higher perception of being corrupt.

Corruption is rampant in the developing world, and it is not only a government issue: as they say, it takes two (or more). It’s also not only corruption at the highest level that holds economies back, but also the everyday corruption. Government processes might be inefficient, but a plethora of agencies may help a business for a small “administrative” fee. Fighting corruption quickly becomes personal, as “administrative” fees quickly become essential to people’s livelihoods. Similarly, for

processes that are more involved, especially when it comes to land rights, the exchange of bribes might become proportional to the value at stake.

Seeing Figure 3, a person might hypothesize that countries with better and more efficient business regulations are better prepared to fight corruption. Obviously, there are other factors that come into play in high-income economies – for example, pay structures in the government that allow people to live decent and secure lives and provide for their children.

The role of IT presents a bit of a conundrum for the industry. There is a tremendous focus on back-office automation with no doubt that this is required. Ensuring efficiency in the back office is an important step in the process to get significant transparency. The challenge, of course, is that back-office automations are usually large systemic transformations, which require skills to manage and maintain the infrastructure and applications. In emerging markets, these skills have yet to be developed. Skills are scarce, as those who have them vie for higher-paying jobs in the private sector. However, there is even less in the innovation space that targets government. In high-income economies, leading edge tech is often funded by the government and used for its own purposes. This is not the case for emerging markets.

The other challenge is that entrepreneurs tend to have less focus on innovation that could be relevant to governments. For example, there is tremendous scope for mobile-enabled, cloud-delivered innovations in the government sector for emerging markets, especially in countries that are geographically vast. The Blockchain could provide the necessary transparency in various government agencies beyond the boundaries of the government. This not only holds in the context of processes relevant to

institutional infrastructure, but also beyond. We believe that independent of the regulatory challenges described in this article, there is always a way for IT to lead the way and put pressure on regulatory change.

Nevertheless, driving change in governments requires an appreciation for the complexity of government operations, the constraints posed by regulations, and the time to value for reaching consensus to overcome hurdles. This is true for all economies. Private sector business operations are distinctly different from running government operations. In developing economies, the complexities of everyday corruption make it even harder. We believe strongly in the power of IT to accelerate the creation of institutional infrastructure. However, the IT industry often falls prey to the “drop a widget” fallacy and needs to build in mechanisms to address regulatory rigidity as a first-class design principle. The IT industry frequently underestimates the challenges that new technologies pose from a regulatory perspective, as well as the immaturity of policy makers in emerging markets to understand how to act on new technology. There is no silver bullet, but IT is essential to institutional infrastructure and, thereby, to the equitable delivery of public goods in emerging markets. □

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