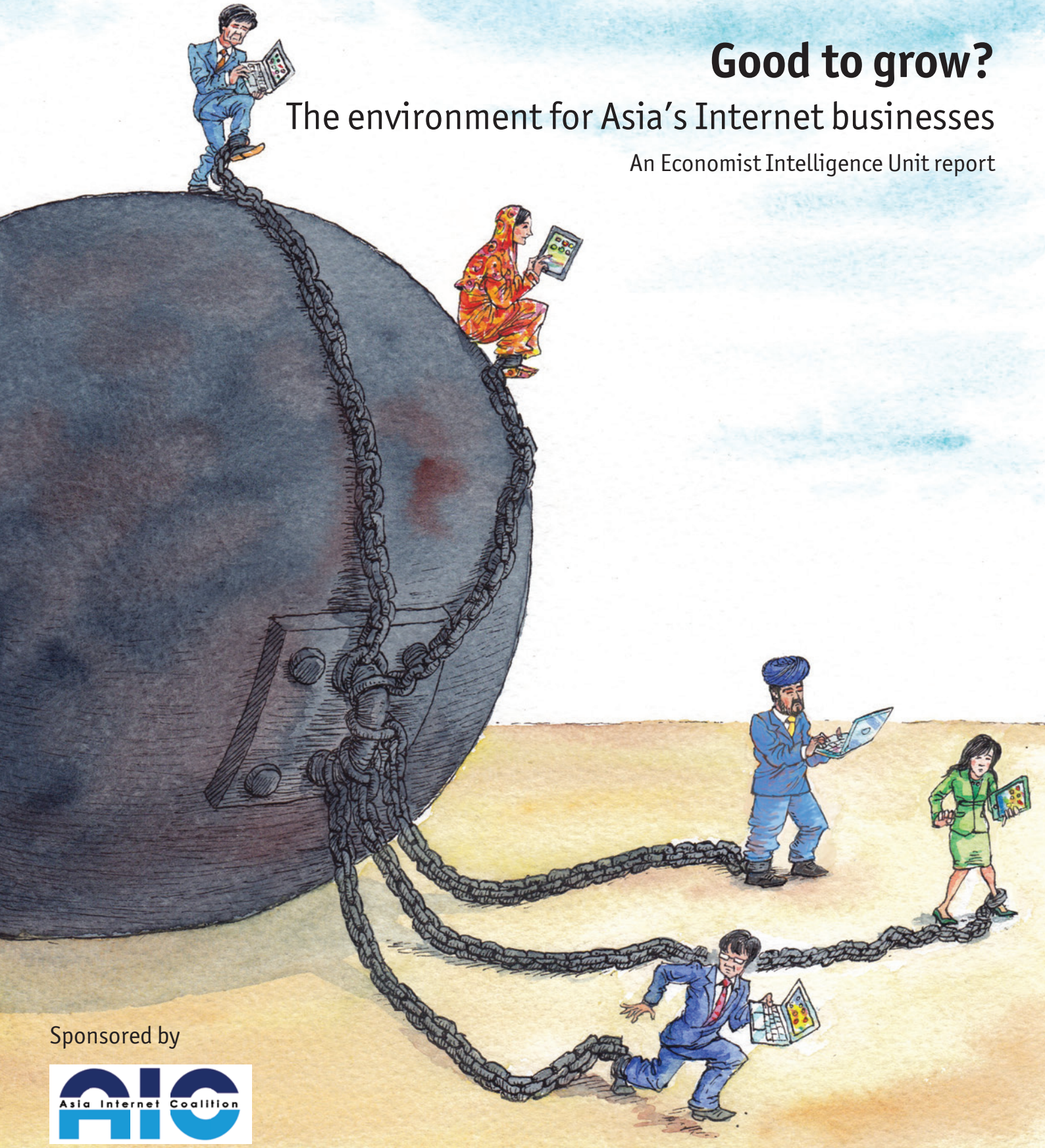
The Economist Intelligence Unit

Good to grow?

The environment for Asia's Internet businesses

An Economist Intelligence Unit report



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Preface

Good to grow? The environment for Asia's Internet businesses is an Economist Intelligence Unit report commissioned by the Asia Internet Coalition*. Its central question is why Asian-produced online content and platforms do not have greater worldwide audiences, given that Asia is the world's largest and fastest growing Internet market. Based on interviews with more than 30 entrepreneurs and experts around the region, this report focuses on the internal and external factors that influence the business models and growth ambitions of Asian Internet companies. These include the commercial and regulatory environment, as well as the market for talent and the ecosystem of collaboration. The Economist Intelligence Unit bears sole responsibility for the content of this report. The findings do not necessarily reflect the views of the sponsor. Our thanks are due to all of the below for their time and insights:

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* The Asia Internet Coalition is an industry association formed by eBay, Facebook, Google, Salesforce and Yahoo! Incorporated to promote understanding and resolution of Internet policy issues in Asia Pacific.

Executive summary

Over the past decade Asia has become the world leader for the majority of Internet-related statistics. It has close to 50% of the world's Internet users, some of the fastest broadband speeds globally, and the most rapid growth in mobile broadband out of any region worldwide. Yet it is curious that there are some areas where Asia is lagging. The most obvious is the size and global interests of its Internet businesses.

Where are the Asian Internet giants that should be visibly competing with the likes of Amazon, eBay, Twitter and Facebook in the global arena? Do Asia's Internet businesses want to build up their presence in Western markets or are they focused on dominating within Asia? What do they see as their highest potential path for growth?

In addition to posing these questions, this report analyses the business environments in which Asian Internet companies operate, and the effects that these have on their ability to grow. It is based on desk research and interviews with more than 30 Internet entrepreneurs and other experts around the region.

The key findings of the research are as follows:

- **There is global demand for Asian content and platforms, but few entrepreneurs are thinking globally.** Asian content and platforms have wide appeal. Examples of companies that have successfully built a global user base include Alibaba from China, Line, a messaging app from Japan, and numerous gaming companies from North Asia. Yet few Asian Internet companies are developing with a global audience in mind. Of the companies that have built up a global user base, this has frequently been through viral traffic, rather than by design.

- **Asian Internet businesses typically focus on home markets, either because they are potentially huge or because they feel they need to build scale before venturing abroad.** Owing to the sheer size and market opportunity available in India and China, there is little incentive for home-grown entrepreneurs from these countries to look outside. Others with overseas ambitions tend to remain regionally focused, believing Western markets to be too competitive and difficult to navigate.

- **Monetisation is an uphill battle for many entrepreneurs.** Entrepreneurs in many parts of Asia face a challenging commercial environment. Online advertising budgets—while growing—remain small and skewed towards the larger players. While e-commerce is growing rapidly, finding the winning business model remains difficult in many markets. Outside of North Asia, entrepreneurs report that Internet users are reluctant to pay for intangible items such as content. This is particularly so when there is

pirated content easily available. Some larger foreign players, such as music-streaming service Spotify, are convinced that consumers will pay if more content is made available. They have recently launched their services in some of the most pirate-prone markets in the region.

- **Online payment channels are fragmented and under-developed, hindering business.** Improving the payments landscape is a pressing issue for many Internet entrepreneurs in Asia. There are several challenges—credit card penetration is low, there is limited ability to use debit cards online and a general reluctance to conduct transactions online. In some markets, businesses rely on offline channels for revenue collection, such as through ATM machines or convenience stores, or even in-person collection of payments.

- **Internet regulation is on the rise, and many governments are focusing more on control than enablement, failing to understand the negative impact on the sector.** Asia is still finding its way with respect to governance and regulation of the Internet. In some markets, such as Vietnam, regulation is mostly undeveloped, which can be seen as a blessing since it allows companies to move quickly and freely. In others, such as South Korea, there are stricter regulations which operators say hamper their business. Singapore recently announced regulations requiring Internet sites carrying news to register with the government like traditional media must do. The one area where ample regulation is in place is around liability for carrying content that either contravenes laws or is otherwise frowned upon. These often poorly worded or confusingly interpreted pieces of legislation—notably those in India and Thailand—create uncertainty for business owners, as well as high administrative costs in order to put safeguards in place.

- **Asia's market for tech talent is being fought over globally. To ensure supply governments need to think strategically, both in letting foreign talent in and building up the local base.** Entrepreneurs describe Asia's talent markets for digital skills as being extremely tight. Asian Internet businesses must compete with global tech behemoths, as well as the traditional "job-for-life" industries that Asian graduates have typically favoured. Many entrepreneurs say the education system in their country needs an overhaul, with a greater focus on technology, and that foreign talent needs to be allowed to enter to ensure skills transfer. However, some governments are tightening regulations on foreigners.

- **A culture of collaboration is slowly replacing suspicion in Asia.** While America's famed Silicon Valley has been built up on a culture of collaboration, Asia's Internet entrepreneurs, notably outside of North Asia, describe fierce competition and caution that prevents companies from working together. However, this is beginning to change. There are networking events and communities being developed across the region, although mostly in pockets, such as Singapore, Kuala Lumpur and Beijing. The increasing need for governmental dialogue is one area that is spurring closer industry collaboration.

Introduction

The Internet is becoming a significant economic force in many Asian countries. Research from the McKinsey Global Institute, the economics research arm of McKinsey, a global consultancy, suggests that in 2010 the Internet economy contributed 5.4% of Taiwan's GDP (only Sweden has a higher figure).[1] Even in India, where only 10% of the population is online, 1.6% of GDP is attributed to the rise of the Internet.[2] This is expected to double by 2015 to be worth US$100bn—the same size as the nation's healthcare industry today. Across Asia, e-commerce spending was estimated to amount to US$332bn in 2012, one-third of the market globally.[3] This is, in large part, driven by China, where e-commerce has seen growth of 65% year on year.

With Asia now accounting for nearly one-half of the world's 2bn Internet users, and an estimated one-third of the global e-commerce market, it is reasonable to wonder when the region will produce a global Internet giant to join the ranks of Amazon, eBay, Facebook and Yahoo!. While the global giants are expanding their presence in the region, a diverse and rapidly evolving ecosystem of home-grown online businesses has emerged to offer products and services. Ventures range from North Asia's e-commerce giants, such as Japan's Rakuten, down to countless innovative cyber start-ups that are developing content and platforms for the web. Entrepreneurship is flourishing in all areas of Internet life, including gaming, video, e-commerce, m-commerce, apps, and social networks.

A few of the region's Internet companies have spread beyond Asian markets to become global players. The best known is China's Alibaba, a global online marketplace that connects buyers with suppliers and has 500m users across more than 200 countries and territories. Several Japanese companies, particularly in the gaming sector, have built global user bases. GungHo Online, for example, is the top grossing app publisher globally on both Apple's iOS and Google's Android platforms.

But these companies are exceptional. The vast majority of Internet companies seem to remain focused on developing content and platforms for domestic and regional markets.

This report seeks to shed light on why Asia's Internet businesses seem to punch below the region's weight on the global stage. It examines the business environment faced by online content creators and online platforms[4] in Asia, and the impact of these internal and external factors on the aspirations of the companies' founders and CEOs. It is based on interviews with senior executives from more than 30 online ventures and investors around the region. It looks at business models and revenue

[1] The Internet's Impact on Aspiring Countries, McKinsey Global Institute, January 2012

[2] Online and Upcoming – The Internet's Impact on India, McKinsey Global Institute, December 2012

[3] eMarketer, February 2013

[4] For the purposes of this report we have defined content as music, gaming and video among other areas. Platforms include e-commerce, messaging services, and social networks.

generation, the talent market and government support—including the regulatory and legal environments.

It finds that developers across Asia face challenges in trying to create original content and services for the Internet, from a lack of funding, struggles around payments and monetisation, and immature cultures of collaboration between developers. In several countries, inconsistent or outdated regulation also undermines the fledgling Internet industry.

The Internet in Asia

Asia accounts for almost 50% of the world's 2bn Internet users. From basic service in rural India, which allows farmers to access information about weather patterns, to South Korea's young, urban hipsters—who watch high-definition streaming videos on ultra-fast mobile broadband networks—Asians are using the Internet in many different ways to improve the quality of their lives.

Yet despite this voracious appetite for Internet access—anytime, anywhere—Asia still has a large digital divide. The World Economic Forum's Network Readiness Index puts Singapore, Japan, Taiwan, South Korea and Hong Kong in the top 20 countries globally for the quality of their digital infrastructure. South Korea is thought to have the fastest Internet speeds in the world. But India, Thailand, Indonesia and the Philippines sit at the opposite end of the spectrum. There are also sizeable urban versus rural differences. For example, only 3.6% of the 833m Indians living in rural areas are active Internet users, and one-third of those have to travel for more than ten miles to visit a cybercafé. But the trend towards wider and better access continues apace, with many government level plans in place to increase mobile coverage and broadband access.

The spread of smartphones is now driving the Internet explosion that is taking place in Asia, and telecoms operators are making huge investments in their networks to capitalise on the ever-growing appetite for mobile data across the region. Industry analysts expect 3G service to expand rapidly in the coming years, particularly for Thailand, Indonesia, Vietnam and the Philippines. In Vietnam for example, 3G subscriptions are trebling each year, reaching 11% of all mobile subscribers in 2012. In China too, the number of 3G subscriptions is at least doubling annually. Mobile operators, who are increasingly squeezed by lower revenue from voice and SMS services, are expecting data to become an ever-larger proportion of their top line.

1 Asia rising?

Given that Asia is home to nearly one-half of the world's Internet users, one would expect more Asian names to play a prominent role in the global Internet arena. Why are there no Asian versions of YouTube, Pinterest or Facebook that have global reach? Demand for Asian content and platforms is rising and some Internet companies have unexpectedly found demand from overseas markets. But many lack the confidence or resources to venture abroad.

The recent launch of a US$50m fund by a California-based games studio, Kabam, to help Japanese game-makers break into North American and European markets is illustrative of a trend—rising demand for Asian content and platforms, extending from gaming, to music, apps, social networks, and e-commerce.

On the content side, there is plenty of evidence that Asian culture, including fashion and music, is gaining worldwide popularity. The most obvious example is *Gangnam Style*, the Korean rap song that became a worldwide sensation and garnered an unprecedented 1.5bn YouTube views. But even before the song's creator, Psy, appeared on the scene, Korean popular music, or K-Pop, had a pan-Asian audience and an overseas market thanks to the large Korean diaspora in Australia and the US. Riding on Psy's success, a nine-piece Korean girl band, Girls' Generation, recently recorded an English-language song and made several promotional television appearances and live performances in the US. "I don't think Psy will be a one-off," said Max Hole, the chief operating officer of a global music corporation, Universal Music Group, in an interview for *The Independent* newspaper. "The production values and the creativity coming out of Korea are remarkable. It won't be long before you see a Chinese or Japanese act doing well."

In terms of app development and social gaming, Japan and South Korea are home to some of the world's leading companies. In October 2012 revenue made by Japanese app developers overtook those of developers headquartered in the US, and South Korean companies are not far behind. DeNA, a Japanese game company, had turnover of more than US$500m in the third quarter of 2012, with games that have topped the Google Play charts in 22 countries, including the US. But Japan remains its single biggest market. On Google's Android platform, nine of the top ten app publishers by revenue are based in either Japan or South Korea. American and European companies have a larger market share on Apple's iOS platform, which is less popular in Asia than in the West.

Degrees of aspiration

Among those Asian companies that have attained a degree of global prominence (and dominance), few had global ambitions from the outset. The major exception is China's Alibaba, a global online marketplace that connects buyers with suppliers, which has the tagline: "global trade starts here". It now has more than 500m users worldwide. Using English from the start gave Alibaba a distinct advantage when expanding beyond China. The company's

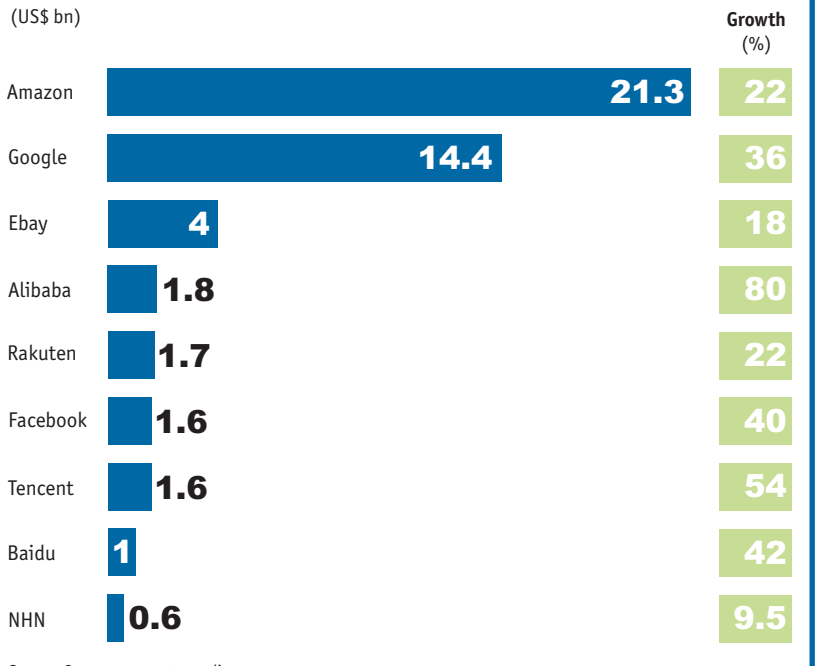
strategy has been to grow organically into international markets, by establishing local offices and building a user base. In 1999 the firm opened offices in the US and Hong Kong, followed by Switzerland and Taiwan in 2008. Although the firm has had mixed fortunes in international markets over the years—it nearly went bankrupt when the dotcom bubble burst—it has been global in mindset since day one. According to its CEO, this was partly a risk management strategy in anticipation of Chinese-based suppliers eventually losing global competitiveness.

Japan's e-commerce giant Rakuten, by contrast, has only recently set about globalisation in earnest. Established in 1997, Rakuten made its first overseas acquisition in 2005, buying a US affiliate marketing company. In subsequent years acquisitions have focused on Asia, and included Thailand's leading online e-commerce site, Tarad. In 2010 Rakuten made English its official corporate language, a major plank in its strategy to pick up the pace of its globalisation, particularly into Western markets and via acquisitions. Adopting English has made a tangible difference according to Mark Kirschner, the global vice chief marketing officer with Rakuten, both in the company's ability to build relationships and also to attract talent. "It's a masterstroke: you can pick up the phone and talk to somebody without waiting for interpreters. It's been hugely helpful, not only for executive communication. For example, 50% of the engineers we hire (worldwide) are non-Japanese. That's only possible because of the level of English competency here."

Rakuten has been actively acquiring online companies in order to build a global portfolio. It now has online shopping, travel and finance businesses across Asia, Europe and the Americas.

Playing among giants

Revenues of Internet players, Q4 2012



Source: Company reports, media

Accidental globalisation

Among several other companies interviewed for this report, global expansion was not part of the original plan, but it is now being embarked upon, since consumers outside the home country have shown an appetite for their product. There seems to be no clear recipe to ensure a business attracts global attention, but it certainly helps to score highly on global app stores, or to be associated with other global platforms. A particularly successful Japanese export is Line, a messaging service that uses the Internet to send instant messages to smartphones and PCs. NHN, the Korean company that developed Line, initially planned to focus on Japan (see box, Thinking global, acting global). But users began springing up everywhere, first in the Middle East and then other places, by virtue of its high rankings on mediums such as Google Play and iTunes, as well as recommendations on blogs and websites. Seeing opportunity, the company decided to go global. It is now actively marketing in East Asia, Spain, Chile and other South American countries where Line has been picked up by users. It currently has 120m users in over 40 countries (40m are in Japan) and aims to top over 300m users this year, putting the service in the same

league as Internet behemoths such as Twitter, Facebook, and China's Sina Weibo. Its expansion plans include China and the US.

Rather like the messaging app Line, a Thai games-development company, Sandbox, created a game originally for South-east Asian markets that then took off globally. The game is Stylista, which is played through Facebook and taps into a niche market for online games aimed at women. Originally developed in Thai, Stylista was translated into English for expansion into Singapore, Malaysia and the Philippines. Sandbox was taken by surprise when it discovered that it had a large user base in countries such as Brazil and Turkey, purely through viral traffic. "We have over 1m playing the game, more than 100,000 every day," says Ferdinand Gutierrez, Sandbox's founder and CEO. "We're in over 20 markets and we only wanted to specialise in South-east Asia at the beginning."

Stay-at-home entrepreneurs

A desire to focus domestically or regionally was widely shared by the entrepreneurs interviewed for this report. In some cases it is the size of the domestic market that keeps companies at home. With populations of over 1bn each, China and India present huge opportunities in their own right. To put this in context, three of the ten most popular websites globally (Baidu, QQ and TaoBao) are Chinese language sites aimed largely (at least at the moment) at the domestic market.

In India, despite low Internet penetration and slow download speeds, the market's immense potential still excites domestic entrepreneurs. Hari Nair, the CEO of an Indian online travel start up, HolidayIQ, points out that there are 500m leisure-related domestic trips made in the country each year. This makes developing an internationally focused service targeting foreign holiday-makers (of which India received only about 6.6m last year) seem far less exciting.

In many other cases, however, it is the small size of the domestic market that prevents companies from reaching the scale they need to expand overseas. There is a consensus across the region that if a company cannot build up a strong business in its home market, then it stands little chance of international success—or at least it is too risky to aim for the international market, which is less well understood than the home market. Those taking tentative steps outside the home market are more likely to focus on Asia, and be less confident about pushing into mature Western markets, where competition is fierce and they lack a clear advantage. Not that they can escape global competition by staying at home. "I think we need to flip the old saying, making it 'think local, act global'," says Johanan Sen, the business strategy director at PopDigital, a Malaysian digital content firm. Content needs to be meaningful locally, but with global competition from the likes of YouTube in nearly every market, local content must stand with the best globally.

For those considering regional expansion, there are numerous challenges. Language is a main stumbling block. In countries where English is spoken, such as Malaysia, Singapore, and the Philippines, Internet businesses can deploy and scale more easily than in those where language-specific coding based on characters or script is required, such as Thailand or China. In these cases, platforms must be developed from scratch—a process that is often fraught with technical difficulties. Unsurprisingly in these countries, home-grown platforms are the most popular. Most start-ups lack the resources, either financial or in terms of management strength, to translate and adapt into new markets that are at different stages of development, and have unique cultures, technology preferences, business environments and e-business infrastructures. "If we want to do really well in a new location, it's not just a matter of turning on the Internet connection," says Izero Lee, the chief operating officer at KKBOX, a Taiwanese music service. "You need locals who follow the music scene to tell you

what's hot. We are a content service, and need to localise."

According to Junichi Akagawa, the managing director of DeNA, a Japanese gaming company, "Optimisation for local markets is our biggest challenge".

This is where smaller players will need help. For example, Kabam, mentioned at the start of this chapter, will be offering small Japanese developers support with marketing, language translation, and performance analytics to track their success.

Even platforms must contend with uneven levels of development and differences in consumer preferences and business practices among content providers or merchants. Rakuten, for example, is seeking to take its marketplace model global. "In some cases we acquired companies that have a first-party sales model, so we are now transitioning those to the third-party," says Mark Kirschner, global vice chief marketing officer at the company. "They are at different stages of evolution, but we are working toward the same kind of model we have in Japan. We find that when we go out and talk to merchants about our model, they're very positive about it. What we bring to the table is the ability for them to customise their storefronts, to connect directly with the consumers, the fact that we don't compete with our merchants. These are all very compelling." But the emphasis is different between developed and developing markets. "With consumers in countries that are developing, it's important to build trust with them that if they pay for something online, it will be delivered. Whereas in more mature markets, it's about making sure that you have a more competitive and differentiated offering," notes Mr Kirschner.

Going vertical

Rather than expanding geographically, some Internet entrepreneurs are prioritising growth through diversification. For a Vietnamese e-commerce company, NhomMua, the country's market size provides ample opportunity—yet the complexity limits potential for scale in any one business. "Vietnam is a two city country," says the company's co-founder, David Tran. "Although Internet penetration is high, there are only market opportunities in Ho Chi Minh City and the capital, Hanoi, because the per capita income is markedly less in the smaller cities. That's why you have to go into verticals." In addition to expanding its business as an e-commerce platform that offers merchants' payment and delivery systems, NhomMua is looking to get into new product areas.

Sanook was one of Thailand's earliest Internet companies and has been the nation's leading web portal for the last 13 years, according to Tiwa York, a managing director for the company's e-commerce division. In addition to hosting news, sports, entertainment and web boards, the company has Dealfish, a classifieds service, and Sabuy, a business-to-consumer (B2C) e-commerce site. "Sanook as a business is about Thailand, about bringing great services and products to Thailand," he says.

Thinking global, acting global

Just how global is the Internet business? One of the findings that stood out in The Economist Intelligence Unit's research was the seemingly effortless shifting of some Internet entrepreneurs between business lines and geographies, based on unanticipated market demands. For example, Line, a messaging service that uses the Internet to send instant messages to smartphones and PCs, was started by NHN, a Korean company that is the number one search engine and game platform in that country. In Japan, NHN thought search would be too difficult, since Yahoo! and Google have a combined market share of about 90%. Looking at the expected growth of the smartphone market, it decided that a free messaging and call service would work. From there, Line has expanded into numerous markets globally, based on unexpected demand from countries as diverse as the Middle East and South America. NHN does not compete in the messaging market in Korea, describing it as too difficult.

Multiply, an e-commerce site focused on South-east Asia (which recently announced it was shutting down), was founded in Boca Raton, Florida in 2004. It was one of the early social networks before Friendster and Facebook. When the latter became hugely popular globally, Multiply began to look deeper into the Philippines and Indonesia, where it had a strong foothold. It discovered that usage was mainly for blogs about products rather than personal communication. It then re-positioned Multiply as an e-commerce site, and was bought by Naspers of South Africa.

StepOut.com, an India-based dating site, started life as a venture called Ignighter.com in New York in 2008. The two Americans who founded StepOut were surprised that, while the take-up at home was relatively slow, droves of people were signing up in India, which has many matrimonial websites but relatively few dating websites. They thus shifted their operations to India in 2011. StepOut is still an American company but it is now run out of Mumbai.

StepOut has 5m registered customers, 90% of whom are in India. The remainder are spread across Indonesia, Malaysia, the Philippines and Singapore.

2 Monetisation: The long, hard, road

As has been the case for most players in the Internet industry the world over, entrepreneurs in much of Asia find it a challenge to make money. For entrepreneurs building content and platform businesses in the less developed countries in Asia, the problem is exacerbated by a general lack of development in some key areas that make the Internet economy tick—namely a willingness to pay for intangible goods, such as content, small markets for online advertising and a lack of willingness or ability among consumers to make online payments.

In the broadest terms, there are three types of business models that companies can adopt for online ventures. The first is to generate revenue directly from consumers – be it for goods, services or content. The second is to rely on commissions for selling the products or services of third parties. The third is to charge for advertising, or other forms of access to a cultivated user base.

As with many of the issues discussed in this report, on monetisation there is also a "digital divide" between North Asia and the rest of the region. Both Japan and South Korea have large and highly profitable online gaming industries, and consumers are willing to pay for other content as well. Line, a messaging and voice over Internet provider, has three main revenue streams. The first is what it calls "stickers", emoticon-like images that can be purchased for use inside of messages (Line's larger selection and variety of emoticons sets it apart from competition in the instant messaging market). About 20% of its 40m users in Japan buy stickers. The second revenue stream is from official accounts with companies such as Lawson, a convenience store chain, and ANA, an airline. They spend about Y3.5m (around US$36,200 at current exchange rates) per month for the right to distribute coupons and other information to Line's registered users. The third stream is to allow companies to sponsor stickers, much like Twitter offers sponsored tweets. The business-to-business (B2B) models are still being trialled in Japan, with a view to taking them overseas. Line is also being developed as a platform that will offer games and apps. As Line illustrates, however, the first step is achieving critical mass. "As a market leader it's relatively easy to get people to work with us," says Satoshi Yajima, a senior manager at NHN Japan, which owns Line. "We have a user base of 40m (in Japan), which is difficult to build, so companies want to access that."

Online businesses that target the consumer wallet elsewhere in Asia have mixed fortunes, depending on the market they are operating in and what they are selling. Purveyors of content have the most difficult challenge. Many interviewees outside of North Asia report a reluctance to pay for intangible items such as video, music, online games, and apps. "Making money from online content remains a big challenge," says Shreyas Srinivas, the CEO and founder of an Indian online comic book site, Level10comics.com. "People will spend

on shopping, on buying products, but not on something more intangible, like entertainment."

Countries such as Indonesia and Vietnam, which have large and young populations, may seem enticing to Internet entrepreneurs. Yet consumers there are accustomed to downloading content for free, a mindset that will take time to change. POPS Worldwide, a Vietnamese multimedia company that aggregates and distributes Vietnamese content—such as music, games and apps—and also produces and distributes some content, such as games and apps themselves, has had limited success in generating revenue from full-length audio tracks from its domestic user base. Instead the company works with mobile network operators to provide content such as ringback tones. It also works with Sony and Universal to distribute their music in Vietnam. Internationally, they target the Vietnamese diaspora through iTunes, Amazon, Spotify, Deezer and YouTube (see box, Banking on the diaspora).

In addition to a reluctance to pay for content, entrepreneurs in several countries describe piracy or unauthorised distribution as a significant obstacle to the growth of their business. Those developing apps and games businesses are particularly affected. In India, Quickr, a classified ads site, has designed a piece of software to prevent scraping sites from copying the firm's content. It took two members of staff up to three months to develop the tool,

Banking on the diaspora

Rather than taking on the entire global market, several of the companies interviewed for this report have chosen instead to target the diaspora from their home country. In Vietnam, POPS Worldwide, a Vietnamese multimedia company that aggregates and distributes Vietnamese content, targets Vietnamese communities abroad, primarily in the US, Taiwan, South Korea, Australia and Canada.

Companies from Taiwan, such as KKBOX, a music service, and PCHome, an e-commerce site, are staying with ethnically Chinese markets. According to Izero Lee, the chief operating officer at KKBOX, the music streaming company first expanded into Hong Kong simply because it, like Taiwan, uses traditional Chinese characters and hence very little needed to be changed in terms of existing content. KKBOX did add a Cantonese catalog of songs to cater for local tastes and its expansion has been successful. It is now looking at other Chinese-language markets and has entered Singapore and Malaysia. But 50% of its market is still in Taiwan.

It now plans to look to other Asian countries with sizeable Chinese populations, such as Thailand and Indonesia. The big prize, of course, would be China, but for the moment that country is not on the list of priorities. "I don't think the time to go there is right yet," says Mr Lee. "They don't have a culture of paying for content. The main Chinese model is free content for users, with revenue coming from ads. This model is difficult for maintaining a sustainable business."

The strategy seems simple but in reality is more complex. Singaporeans listen to a lot of Western music and Malaysia's population is only about 20% Chinese, so KKBOX is also offering Malay songs. The regulatory environments are also different between each market. In Singapore and Taiwan KKBOX needs to negotiate rights to music with several different parties, not just the recording company, whereas in Hong Kong all rights are handled by one body.

PCHome Online, an e-commerce platform, has also chosen to focus on Chinese consumers, largely in the US, where it says the population numbers 4m, although it delivers to over 100 countries. "We think this is a population we can service," says Jamie Lu, the assistant director of marketing at PCHome. "We have no interest in serving other foreigners. The website is completely in traditional or simplified Chinese. There's no English."

but it was essential to prevent the business from losing money.

In some cases content creators and owners have little choice but to accept illegal copying as a fact of life. "We create a lot of proprietary content and it often gets ripped off by other sites," says Hari Nair of HolidayIQ, an Indian online travel service. "But, if you know that you'll only get a [legal] decision in 20 years' time...we can only make noises and then move on. The only real solution for us is to keep creating content so quickly that we're always ahead."

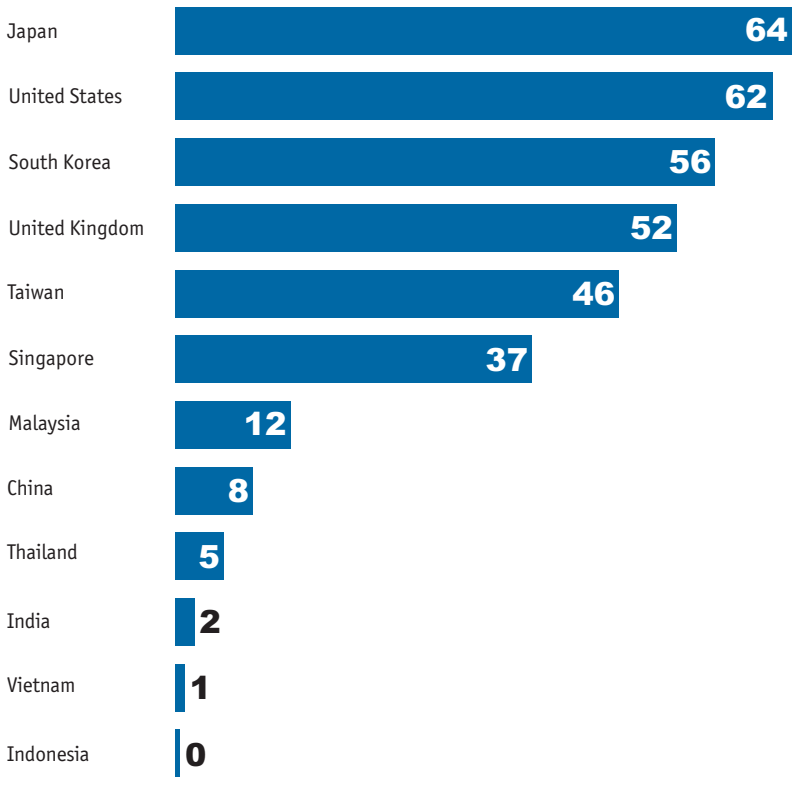
There is a growing opinion among players from larger markets that a combination of advances in technology, improved product availability and efficient payments systems will encourage more people to pay for content, such as music. One technology solution has been developed by ZEFR, a California-based start-up that is partnering with YouTube to ensure that licensed video clips can be well monetised. ZEFR offers content identification technology and monetisation tools to video content producers, including film studios, music publishers, and media firms in sports and entertainment. Its latest move is to make the content identification technology available for user-generated video.

Mr Lee of Taiwan's KKBOX, a music subscription service that began as a PC-based business but has now gone mobile, suggests that the spread of the mobile Internet will do much to discourage illegal copying, at least of music. "It's not as convenient to load an illegal copy onto your phone as it is to just subscribe to a service and listen to legal versions," he says. "In Taiwan and Hong Kong, apps go through official platforms, such as Apple's app store and Google Play. And if you present illegal material, it's easy for these platforms to kick your service off. So there's some level of control. This is opposed to the Internet, which is very open and free, and crosses borders and legal boundaries."

Music streaming giant Spotify has specifically chosen to launch its Asia services from Singapore, Hong Kong and Malaysia, where music piracy is common. According to the International Federation of the Phonographic Industry (IFPI), one-half of Singaporeans access illegal music and movies. Globally, Spotify converts one-quarter of its listeners into paying monthly subscriptions, and has an additional revenue stream from advertising. The hope is that in Asia too, the convenience of accessing licenced music will be worth the small amount needed to pay for it.

In Asia cash is king

Credit card penetration, 2011
(% of the population over the age of 15)



Source: World Bank

Not enough ads to go around

Monetising through online advertising is not easy, as even big names in the global publishing industry have discovered—there are simply too many players competing for the same advertising

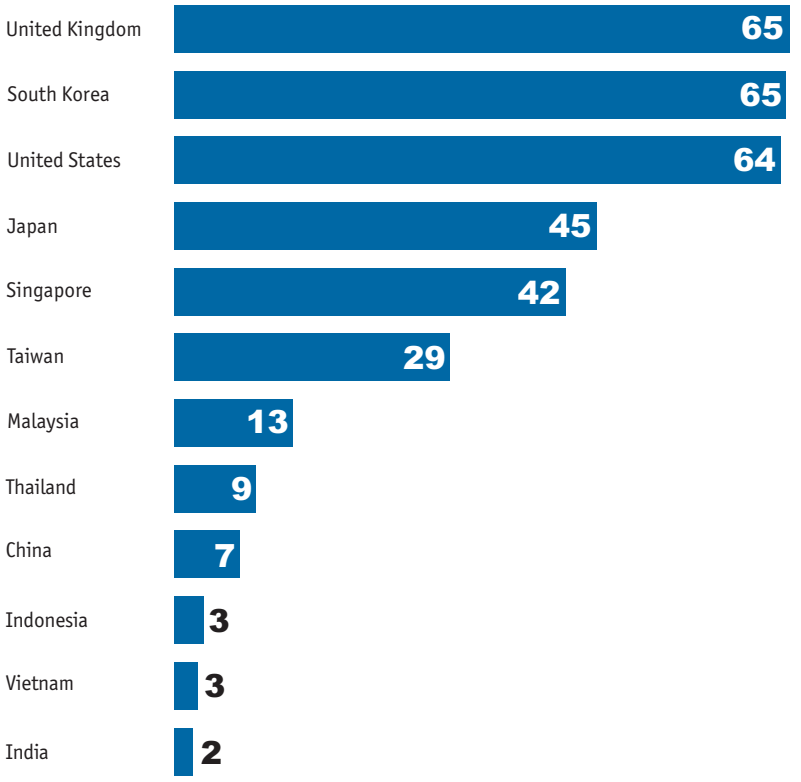
dollars. In Asia this is compounded by the small size of individual markets. In Malaysia and Thailand, for example, just 1% of advertising revenue is spent online.[5] In India, this is slightly higher at 7%.[6] But of the US$410m being spent online, 60% goes to Google and Facebook, with only the remaining 40% going to other online players.[7] While online advertising in Asia is forecast to grow at a modest pace (from 24% of worldwide online advertising in 2010 to 26% by 2015), the mobile advertising market is really taking off. By 2015 Asia is expected to account for one-third of the mobile advertising market globally.

"In terms of business models, everyone, even MNCs (multinational corporations), are still very much in the investment phase, focusing on revenues," says Paul Srivorakul, the chairman of Ardent Capital, a venture capital fund and incubator focused on e-commerce businesses in South-east Asia. "It is like a 'land grab' strategy. There are a lot of users but not a lot of real paid users. Anyone is looking at a 3-5 year play."

In some cases, business models are being improved through the transfer of know-how from the region's larger players. In Thailand, for example, Tarad, the leading e-commerce site, has seen its fortunes improve since it sold a majority share to Japan's Rakuten and adopted the latter's system of charging merchants a commission on sales—a practice that has now been adopted by the wider e-commerce industry in Thailand. Prior to that, Tarad had been reliant on monthly platform fees and advertising, and had difficulty making money. Platform fees and transaction fees are currently about equal and form the bulk of Tarad's revenue, although the company expects transaction fees to soon become the largest source of revenue. According to Pawoot Pongvitayapanu, the managing director and founder of Tarad and president of Thailand's e-commerce association, there is still much work to be done to educate the market. "We need more people to shop online—and merchants, we need more products which will encourage more shopping," he says. "We need to build trust."

Still largely offline

Use of electronic payments, 2011
(% of the population over the age of 15)



Source: World Bank

Payment problems

Compounding the challenge of making money is the undeveloped infrastructure for online payments, particularly in South-east Asia and India. There are two problems with online payments. The first is a lack of credit cards and a reluctance to use them online. In North Asia, credit card penetration is as high, if not higher, than the US and Europe. But many of Asia's less developed markets are still largely cash economies. Credit card penetration in China, Thailand, India, Vietnam and Indonesia is less than 10%. Penetration of debit cards is much higher, but these are only now beginning to be

[5] ADMA Digital Marketing Yearbook 2012

[6] ADMA Digital Marketing Yearbook 2012

[7] ADMA Digital Marketing Yearbook 2012

integrated into payment systems. In both cases consumers have shown reluctance to use cards online, mainly for fear of fraud. In Indonesia, for example, fraud is the reason that one-third of Internet users did not shop online last year.[8]

The second problem with payments involves fragmented and under-developed payments systems, although these are rapidly improving in many markets.

"Payments have been an absolute nightmare," says Mr Srivorakul. "Most people in South-east Asia are still using pre-paid cards on their mobiles."

With the culture and infrastructure of online payments so undeveloped, what do companies do? In many cases they must invest resources to take payments physically. This is notable in Indonesia, India, Thailand and Vietnam. In India, for example, although there have been improvements in the regulatory system to allow companies to accept online payments, many customers still prefer cash. StepOut.com, a dating website, offers a payment collection service in India's top ten cities, where staff collect payments in person before activating customer accounts. "If you look at Indian e-commerce, what has scaled for these companies is cash on delivery," says Nikhil Pahwa, the editor of MediaNama, a news portal covering the telecoms and digital media industries in India. The need to have a strong offline component to support online business is not confined to payments from consumers. David Tran, the co-founder of Nhommua.com, a Vietnamese group-buying discount site, says in Vietnam it is the same issue for collection of revenue from vendors using its site. "We have guys on motorbikes to collect [commission] from the vendors and it's several million dollars a month, in cash," he says.

There are several examples of companies developing innovative solutions that bridge the gap in payments infrastructure. A firm based in the capital, Bangkok, called 2C2P.com, recently launched 123, an alternative payment platform that enables Thai Internet users who do not have bank accounts to buy goods online. Shoppers, after selecting the 123 payment method, receive a reference number and a barcode that they can use to pay in cash through any participating channel, such as Tesco Lotus supermarkets or the ubiquitous 7-11 stores. There are over 20,000 payment locations across Thailand, and the merchant receives a real-time notification that payment has been made. In the words of 2C2P.com's founder, Aung Kyaw Moe, 123, "has out-optimised cash on delivery". In other countries, notably the Philippines, various options—such as debit cards, pre-paid cards or digital wallets—can also be used for online shopping.

These channels are not as slick as an online payment platform such as Paypal, but they are having an impact. The e-commerce division of portal Sanook, which includes Dealfish, the leading classifieds site in Thailand, and Sabuy.com, a marketplace business for merchants, has seen rapid change in the payment methods used by its customers. Traditionally, about 60% would make payments via automated teller machines (ATMs) or online banking, using a code provided by Sanook. But Tiwa York, a managing director for e-commerce at Sanook, says that in the past year that figure has dropped to about 35%, while about 35% of payments are made by "counter services" at retailers such as 7-11. Only 30% of payments are by credit card or debit card. Tarad, Thailand's largest e-commerce venture, says that less than 50% of its payments come from cards.

In Thailand, the e-commerce industry is trying to work with banks to promote trust in online payments using cards (for example, by offering discounts for purchases that are paid for online, banks would absorb the cost of this as a marketing exercise for their cards). But there is a long way to go.

Even in Taiwan, where the Internet ecosystem is more mature, the payments environment

[8] Asia B2C Ecommerce and Online Payment Report, ystats.com, February 2013

shows much room for improvement. A domestic payments platform is still to be developed, and there are restrictions on third-party payment mechanisms, such as PayPal. This means that most online purchases are made through ATMs. KKBOX works with telecoms providers to bill for its music subscription services. Some observers believe that this could become a trend in Asia, with telecoms companies offering app stores and integrating app download charges into their regular billing service. Vodafone has announced that it will be launching this service in India in 2013.

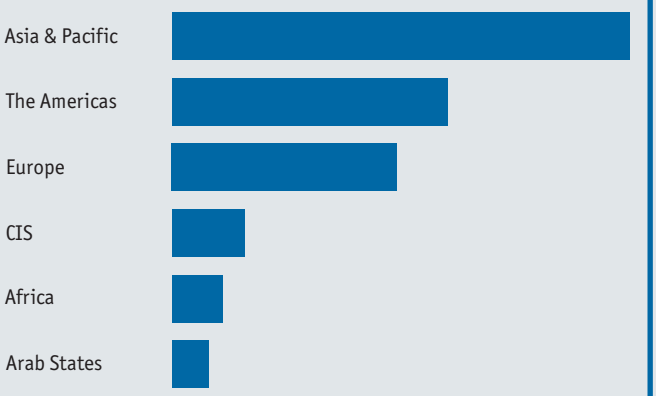
Securing, streamlining and simplifying the fragmented payments systems in many Asian countries would provide a considerable boost to Internet companies that are struggling with monetisation. It is an area where banks, regulators and industry players can collaborate to build consumer trust in the industry. When consumers decide that they actually want to pay for content, goods or services online, the final step in the purchase should not be the obstacle.

The impact of mobile

Demand for smartphones and mobile broadband is rocketing in Asia. In many countries, particularly where PC ownership is low, there is greater web traffic through mobile devices than via desktops. In China, for example, almost 75% of web users are accessing the Internet via a mobile device.[9]

Digital leaders

Mobile broadband subscriptions
(m)



Source: ITU, 2013

Entrepreneurs in the region are also increasingly looking at mobile platforms to fuel their growth. With Thailand's long overdue 3G rollout now imminent, the market is poised to see the impact that this will have on the way that consumers use the Internet. Mobile penetration is high – over 100% and there is already evidence that user behaviour is changing. "The entrance of 3G is going to explode the way that people use the Internet in Thailand," says Tiwa York, managing director for e-commerce at Sanook, one of Thailand's leading portals. Dealfish, the company's classified ad service, already has seen mobile traffic rise rapidly. It accounted for only 5% of all traffic in 2010 but the figure had risen to 24% by January 2013.

Tarad, Thailand's leading ecommerce site, is also feeling the impact of mobile's rise. The company says that 30% of its traffic and 11% of sales are currently via mobile. "Mobile commerce is going to be very fast," says Pawoot Pongvitayapanu, one of Tarad's founders. "This includes tablets because this is what older consumers, the people with money, prefer to use. This represents a new market for us."

Similarly in Vietnam, multimedia company POPS Worldwide is developing apps and services that aim to capitalise on the surging demand for mobile data and entertainment. Its POPS Dev Lab division focuses on product development for mobile devices, creating its own apps as well as apps for third parties. It also has a multimedia division that aggregates and distributes content and is the largest distributor of Vietnamese music worldwide. CEO Esther Nguyen sees mobile as being a great opportunity for the company. Already, 25% of POPS' videos are downloaded on mobile devices. While 3G is yet to be fully introduced, the International Telecommunications Union estimates the number of mobile handsets in Vietnam to be double the size of the population, creating an immense platform for mobile Internet services to take off.

For some Internet businesses the trend towards mobile creates a huge opportunity. Other businesses are still determining how best to adapt their models for new methods of consumption. For Netccentric, a Singapore-based Internet company that has successful blogger sites in Malaysia, the move towards mobile is a challenge to the business. "The stats we have are that 50% of people using Facebook and Twitter use mobile channels, but only 1% read blogs using a mobile device," says Timothy Tiah, the company's executive director. The firm has developed a mobile solution that allows users to read blogs and interact with bloggers on a mobile device, but there is still a concern that blogging may lose traction.

With the Internet increasingly being accessed on-the-go rather than at home or in the office, successfully making the transition from PC to mobile formats is critical to the future success of Internet businesses in Asia. It also opens up a world of possibilities. "From 2009 to 2012, our mobile growth was so quick that now our mobile users outnumber our PC users," says Mr Lee of Taiwan's KKbox. "In Taiwan more than 50% of our users listen to our songs using mobile devices. In Hong Kong, it's over 90%." Mr Lee says that without the rapid take-off of smartphones, his business may well have been stuck in Taiwan. "If the service was PC-based, it's hard to transfer the website, with tons of content, to other countries. If you expand to another country, you have to develop a website that is rooted in that country's web culture. The cost of entry is high."

Japanese companies such as Line and DeNA are already largely or entirely based on mobile.

[9] Statistical Report on Internet Development in China, China Internet Network Information Center, January 2013

3 Regulation: Enabling, or hobbling?

To many, regulation of the Internet implies censorship and this is certainly a well-documented issue in Asia. But there are the broader matters of commercial freedom to consider—the freedom to create new businesses without unnecessary regulatory burdens, and the development of regulation that allows consumers to trust online commerce. On this score Asia is still finding its way.

Across Asia, governments are promoting the information and communications technology (ICT) industry as a strategic area of focus for economic growth. But when it comes to Internet-related business, in many countries governments do not seem to consider regulation as an enabling factor, and it remains a matter of trial and error. This often leaves Internet businesses with unnecessary uncertainties or compliance burdens to contend with, or with regulations that may be perfectly sensible for regular business, but which are totally impractical online. Across Asia, the situation ranges from an almost complete lack of regulation, to one in which regulators seem to place unrealistic expectations on companies in terms of their role in controlling some of the consequences of a free Internet.

Vietnam lies in the former category. Entrepreneurs there report that while on the one hand the lack of regulation increases speed-to-market and supports innovation, on the other it presents a missed opportunity to build consumer confidence in Internet companies, something which is sorely lacking and which has an impact on the ability to monetise Internet services. "There are benefits to a weak regulatory environment in that you can move quickly and test your ideas," says David Tran, the co-founder of a Vietnamese e-commerce platform, NhomMua. Nevertheless, he describes himself as pro-regulation, particularly around consumer protection, as he believes that in the majority of cases it benefits business. The influx of fake goods from China undermining consumer confidence in online retail channels is an issue that he believes regulation could help combat.

But it is a fine balance between regulations that help and hinder. In contrast to Vietnam, in Taiwan the government strongly emphasises consumer protection, but the supporting regulation can be impractical in the context of e-commerce. A mandatory seven-day trial period and return policy applies to all online and offline purchases. This may make sense for clothing purchases direct from an online retailer that do not fit well, but not for a song that a buyer may simply be tired of after seven days. The government has also been wary of allowing online payments using credit cards, and so far has not allowed an online payments platform of any scale. PayPal transactions can only be conducted in US dollars, leaving merchants to pay foreign exchange fees to banks. "Our government is quite conservative and traditional," says Jamie Lu, the assistant director of marketing at Taiwan's PCHome Online, an e-commerce platform. "Whether it is the seven-day trial period/return policy mandate for consumer protection, or web payment thinking, the Taiwan government demonstrates they don't understand the power

of the Internet. They are still using an old *modus operandi* of a traditional business. They think the Internet is just a tool, but they don't see that it's a business in itself, as well as a way of life."

Unlimited liability?

In most of Asia, governments are still grappling with the very large issue of who to hold liable for illegal—or merely undesirable—activity that takes place online. Ironically, India, renowned for its prowess in IT services, is one of the more confused on the issue (see box, India: It's a muddle).

In Thailand the issue of liability is clearer, if rather chilling. Thailand's Computer Crimes Act leaves Internet platforms potentially liable for everything that happens on them. The Act states that it is illegal to import into a computer system anything that could cause damage to a third party, cause "mass panic", that is pornographic or an offence against security (including comments critical of the nation's monarchy). The law says that Internet service providers and webmasters are only liable if they intentionally support or give consent to the "crime". But in the 2012 conviction of website owner Chiranuch

Social responsibility

It is well acknowledged that the Internet makes it easier to access some undesirable products and activities. But whose responsibility should it be to control this access? Across much of Asia there is a trend toward government—and society—putting the onus on Internet companies themselves, with sometimes unforeseen results. In South Korea, for example, the desire to control the excessive time being spent on online gaming by the nation's youth led to the 2012 passing of the Shutdown Law. This law forces online games companies to verify users' ages through ID cards, and then block access for under 16s between the hours of midnight and 6am. The government insists the measures are necessary to ensure children receive adequate sleep, although the move has been widely criticised as unnecessary and unenforceable regulatory interference. This is particularly so because the government has simultaneously introduced a law prohibiting online sites from collecting personal data, such as social security numbers from users, thus leaving gaming sites with no means of verifying the age of their users.

In Taiwan and India, alcohol cannot be sold online. According to Jamie Lu, the assistant director of marketing at Taiwan's PCHome Online, a leading e-commerce business, the law was introduced when there were concerns that a buyer's age could not be confirmed. Although companies can now register ages and vow to check ID on delivery, the government has refused to change the law. According to Ms Lu, there are many rural beverage producers who could rapidly expand their business—even go global—if they had access to online sales.

In Japan, social mobile game companies have themselves outlawed *Kompu Gacha* (games that feature gambling-type elements), after concerns were raised by the government. "It's not just the government, but also Japanese society that takes a strict view on corporate responsibility," says Junichi Akagawa, a managing director in the CEO office of DeNa, one of Japan's leading mobile game companies.

According to Satoshi Yajima, a senior manager in the business strategy department at NHN, which owns Line, an instant messaging service, there has been concern about individuals among Line's 40m users connecting to the service to plan criminal activities. "Overseas, when that kind of trouble occurs, most people think it's the fault of those involved, but in Japan, it comes back to the platform provider," he notes. "This is something we're very conscious of, particularly with minors, and we provide guidelines for them and their parents. For minors, we are also linking up with the mobile phone carriers to prevent them connecting through Line to people they don't know."

Premchaiporn, for not removing offensive content fast enough, despite her protests that it was removed as soon as she was aware of it, the court ignored the word "intentionally". The verdict has been widely criticised as stifling innovation and leading to ever greater levels of self-censorship online.

Since 2007, when the law was brought in, the authorities have blocked tens of thousands of websites and continue to put Thailand's Internet service providers under pressure to censor content online. In addition, hundreds of ordinary Thais, not only activists and campaigners, have been arrested. Several have been given lengthy sentences, roundly criticised as unjust. Unsurprisingly, in the annual Freedom on the Net index, published by Freedom House, Thailand's Internet environment is categorised as "Not Free".

Businesses in Thailand (as in India, see box, India: It's a muddle) incur costs to comply with the Computer Crimes Act's demands. For example, any Internet "service provider" (which is broadly defined to include company IT networks, cyber-cafés, hotel wi-fi, and any Internet access provider or search engine) must record and store all of its data and traffic for 90 days or face large fines. The cost for additional servers to store the archived data, depending on the size of the business, could be tens of millions of baht. Businesses are also forced to buy software to enable them to monitor their web traffic. Companies that are operating online businesses have dedicated teams to vigilantly monitor the content that appears on their sites. MThai, one of the top ten most viewed web portals in Thailand, employs more than 20 people to check content before it is uploaded. To keep costs down it does not upload at night Thai time.

Those platforms carrying comments from the public, report that it is impossible to avoid getting into trouble. For example, Pantip, a popular website and discussion forum, has faced four criminal cases and one civil case since the law came into effect.[10]

Thai entrepreneurs are generally reluctant to discuss the laws but they are trying to work with the government to have them changed, so far with no visible success.

In Japan, under guidelines issued by the Ministry of Internal Affairs and Communications, companies also monitor all content posted to their site. DeNA has a team of more than 400 doing this. In other cases, social pressure, rather than official regulation, requires companies to closely monitor their business (see box, "Social responsibility").

In Malaysia, where the government claims to offer a free and open Internet, recent changes to regulation suggest that is not the case. In 2012 a hastily made amendment to the Evidence Act created liability for intermediaries in relation to seditious content appearing on their sites. Entrepreneurs interviewed for this report have not experienced any impact from the changes as yet, but they cautiously monitor their online traffic.

China, of course, takes top prize for the most tightly controlled Internet, with sites such as Facebook and Twitter blocked in the country. Domestic Chinese platforms also have been facing stricter rules in recent months. A tech news site, Tech in Asia, documents the (government mandated) attempts of a micro-blogging giant, Sina Weibo, to curb rumour-mongering among its 500m users. They include banning searches for the word "truth", specific mentions of certain individuals, drawing up a user contract to encourage self-censorship, and delaying the mention of sensitive words by at least seven days.

For businesses operating in China, and not only those in the content and platform development sphere, the Internet environment is a considerable impediment to their operations. Slow Internet speeds and frequent service disruptions hamper their ability to gather information and collaborate virtually. A March 2013 survey by the American Chamber of Commerce in China found that 55% of the 325

[10] Prachachart Turakij Online

respondents reported that Internet restrictions had a negative impact on their capacity to do business there.

The quintessential problem when regulating technology is that the legislation cannot hope to keep up with the rapid pace of innovation and the emergence of disruptive online business models. This does not mean that legislating is a futile exercise. But in many countries around the region, Internet entrepreneurs report that their government does not grasp the economic importance of the Internet and the role that regulation can play in either enabling or hobbling it.

India: It's a muddle

Although it happened nearly a decade ago, India's Internet entrepreneurs still recall the arrest of the CEO of the Indian subsidiary of an e-commerce site, eBay, after a pornographic video was found to have been loaded on to the site. They remain uneasy because, although the Information Technology Act 2000 has since been amended to limit the liability of intermediaries (typically understood as sites that host user-generated and other content, but defined far more widely in India to include owners of cybercafés, among others), the rules remain unclear. As a result, companies feel the need to continuously monitor and review content posted on their sites by third parties. Most Internet businesses in India have a dedicated team that is tasked with raking through content for anything contentious—such as blasphemous, libellous, obscene or pirated content—or anything that might dampen the user's experience. Quickr, an online classifieds site, employs 100 people to monitor content out of a full-time staff of 400. Since late 2012, it has become increasingly unclear as to what they should even be looking for.

According to Faisal Farooqui, the founder of MouthShut.com, a consumer product review site which is challenging the country's IT laws in India's Supreme Court, the rules are "so vague that it cannot be predicted with certainty as to what is prohibited and what is permitted. A consequence of this law would be the delegation of essential executive function to private parties. like MouthShut.com, to censor and restrict free speech of citizens or else face legal challenge for user's content".

Mr Farooqui says that his company has been hit with hundreds of legal notices and been harassed by police on behalf of companies who were unhappy with the reviews of their products posted on the site .

In November 2012 two young women were arrested for questioning on Facebook why Indian city of Mumbai had shut down following the death of the leader of the Shiv Sena party, Bal Thackeray. Section 66A of the Information Technology Act—sending a grossly offensive and menacing message through a communications device—was used to make the arrests. The charges were subsequently dropped, but what followed was a further wave of arrests for similarly vague reports of defamation. For example, more than 100 people were arrested for querying on Facebook whether or not P. J. Kurien, a defendant in a typically drawn-out rape case that has been winding its way through the courts since 1996, should preside over legislative debates on tougher rape laws.

Legal observers have focused on the IT Act's definition of what can constitute a "grossly offensive" remark. The exact wording of the IT Act was taken from English law but, importantly, in the UK, the definition of "offensive" is interpreted to include having malicious intent as a deciding factor. This critical differentiator is not being applied in India. Scores of people are being rounded up because someone has taken offence to an online statement that was made without malice or having caused reputational harm.

Observers report an increase in the number of requests to remove content (which they have one month to do, recently increased from 36 hours). How many of these are justified versus frivolous requests is not easily ascertained; yet the overall impact is contrary to an open and free Internet. Rather farcically, the Indian government has even been forced to censor one of its own websites. A higher education college, the Institute of Planning and Management (IIPM), successfully won a defamation case against the government's University Grants Commission for having stated that it had lost its accreditation. In fact the IIPM had never been accredited to begin with.

Clearly, India's regulatory environment has considerable room for improvement. While the Ministry of Communications and Information Technology is responsible for the frequent issue of laws relating to Internet governance, there is no specific regulatory body for content and platform creators. Some, particularly smaller operators, take this as a good thing, since it means fewer barriers to entry, particularly compared with manufacturing and other over-regulated industries. But the downside is that there is no central avenue for communication with businesses that will be affected by changes in the law. "I would like to see a central regulatory body for online businesses," says Deepak Gullapalli, the CEO of Head Infotech, an Internet venture that runs Ace2Three.com, an interactive games platform where users play rummy online. "It would help to have one place to go in order to ask questions."

Does the perceived need to monitor third-party content have an impact on business? Those we spoke to did not rank regulation as the major impediment—top spots were given to revenue generation (including payments) and talent. But the resources being required to do the job could clearly be devoted to other activities.

Aparna Visawathan, a lawyer based in the Indian metropolitan region of Delhi, who has written extensively

about India's IT laws, would like to see them radically modernised. "India's IT Act is stuck in the 1970s," she says, remarking that the terminology of the IT Act has not kept pace with changes in the technology landscape. "While they are trying to make amendments and bring it forward, it is still lagging behind. E-commerce is really out of the ambit of the Act, and we have to look to the regular context of contract law."

Ms Visawathan also notes that far greater privacy protection is needed in India, with a particular concern being the government's wide powers to demand user information from platform providers. "In the provisions on monitoring and interception, I don't think there has been enough importance given to privacy rights and to the procedures which must be applicable before you can force the intermediary to hand over information. There are really widespread powers that the government has given itself."

4 Talent—getting plugged in to the global market

The Internet economy is global, and so is the talent pool that serves it. Asia needs to get plugged in.

Hiring people with the right skills and mindset is a challenge for any business, let alone start-up companies in fast-growing and highly competitive industries. It is no surprise that talent-related issues are top of mind for many of the entrepreneurs that took part in this research. As is to be expected given the relative levels of economic development in the region, the talent issues are more acute in South-east Asia and India. But even in relatively rich North Asia, hiring and retaining talent can prove a challenge. In tech-savvy Taiwan, there are complaints that education has not kept pace with technology advances, and in Japan the ageing population means labour is in general in shorter supply, notably engineers. The one issue common across the region is a risk-averse attitude towards seeking employment in a relatively new and unproven industry, although this is changing.

It is not just software developers who are in high demand, but designers and other creative minds that are suited to working in an innovative, fast-changing industry. The best talent is often poached by large global players offering higher salaries and a clearer career path. And now advertising agencies and even telecoms companies are also competing for digital skills.

"The talent we need is being fought over globally," says Hari Nair, the CEO and founder of HolidayIQ.com, an Indian travel website based in the Indian city of Bangalore. "The kind of skills we need are mostly among the [Indian] diaspora in the US. We need that talent to come back."

With the Internet a global business, and the war for talent global as well, it would make sense for countries in the region to be opening their borders to allow their companies to attract skills from outside, not only to plug gaps in supply but to facilitate skill and technology transfer. Even companies operating in places like Singapore, which on paper has an ample supply of IT talent, want the freedom to be able to hire the right person for the job, regardless of nationality. Yet in several markets, the ability to bring in talented staff from overseas is becoming more and more difficult. Singapore and Thailand stand out as countries where visa restrictions for foreigners are being tightened. Thailand's Board of Investment, which previously had relaxed rules around bringing in foreign talent in the Internet sector, is reported to be increasing the restrictions. This will be detrimental to industry development, according to Paul Srivorakul, the chairman of a Bangkok-based venture capital fund, Ardent Capital. "The local guys do not have the tech knowledge to really develop the industry, and without foreigners coming in there is no technology transfer," he says.

Singapore has also raised the minimum salary requirements for companies wishing to apply for visas for foreign nationals and pledged to review regulations regarding the employment of foreigners and to scrutinise hiring practices.

New measures to deepen economic integration of the ASEAN Economic Community (AEC), due to take effect in 2015, are intended to allow the relatively free flow of labour from one member market to another and will undoubtedly alleviate some shortages. But they will have no impact on the difficulties encountered in employing non-AEC nationals. For some countries, such as Thailand, it is feared that the impact will be negative, with even more scarce talent following global Internet giants, who have shown a preference for basing themselves in Singapore.

Among Asia's rising Internet powers, Japan's companies are actively moving to plug themselves into the global talent pool. "Engineers are in high demand, and they're getting scarcer and scarcer," says Junichi Akagama, a managing director at DeNA, a Japanese gaming giant. DeNA has a large graduate hiring programme, and has been extending its recruitment activities into other Asian markets. DeNA is able to leverage Japan's strong reputation in gaming to attract talent from China, India and Vietnam, among others. Mr Akagama explains, "Japan leads the way in social gaming, so a lot of engineers want to come here if they want to work in that field." To facilitate global hiring—and globalization in general—DeNA is putting more emphasis on bilingualism, hiring full-time language teachers to train staff.

Cultural shift

Exacerbating the talent shortage is an entrenched conservatism among Asian graduates, which leads them to prefer employment in larger companies in established industries that offer stability and long-term prospects. In some markets this is changing. Jamie Lin, a co-founder of a Taiwan-based start-up firm, Appworks Ventures, says software industries are capitalising on the decline of hardware in Taiwan. "Until three years ago, people wanted to go into large companies and mostly do hardware. But we're seeing a shift and it's coming quickly," he says. In other markets, such as India, the risk-averse culture prevails. Adam Sachs, from StepOut.com, a dating site based in India, says, "some people just want to pass the father-in-law test. They think, 'is this a company that my father-in-law will have heard of, or will he think that I work for some rinky-dink company with no future?'" Japanese recruits have a similar bias. To help change minds, DeNA bought a baseball team based in the Japanese city of Yokohama, the Baystars, to get its name known among opinion leaders—baseball is popular with the older generation that typically steers youngsters towards traditional industrial companies.

Another oft-cited challenge is that even where people are available, their skills are not up to date. Speaking about Taiwan, Mr Lin says that the education system is failing to prepare computer science graduates for the technology landscape in the current marketplace. "Our school system is not teaching them the modern tools that we're using in the industry," he says. "When they graduate, if they're not proactive, a lot of them don't even know what [code repository] GitHub is."

This sentiment is shared in Thailand and Vietnam, where the education systems do not train students in business skills and critical thinking, which are essential in a dynamic and innovative business environment. According to Esther Nguyen, the CEO of a digital media service provider, POPS Worldwide, the problem stems from the rote learning system. Youngsters are told what to do and simply follow, rather than thinking out of the box. In Singapore too, the gap in critical thinking and creativity leads to project execution challenges. Sarah Doery, the CEO of a mobile web technology provider, Cyclone Creative Technology, says that "a lot of tech people find it difficult to see the difference between something that works and something that's great".

What to do?

As one would expect of entrepreneurs,

interviewees for this report were not short on suggestions of how governments could help to alleviate the situation. Mr Nair of India's HolidayIQ.com, suggests that the country offer tax breaks to Indian software engineers and others with needed skills to encourage them to return home. In South Korea, where there were no complaints about talent supply, Sirgoo Lee, co-CEO of Kakao Corp, which runs a mobile messenger service, KakaoTalk, lauds the government's policy of allowing IT specialists to fulfil their mandatory military service by working for venture start-ups. This has allowed these companies to attract some top talent. The consensus was that the best thing governments could do would be to proclaim Internet-related business—as opposed to the traditional ICT industry—as a priority growth sector.

5 Collaboration: Overcoming suspicions

While nowhere near replicating Silicon Valley's fertile tech ecosystem, collaboration in the Internet industry in Asia is slowly catching on.

Collaboration means many things—the sharing of ideas with industry peers, the forming of alliances and partnerships to gain wider market access, and the banding together of like-minded companies to battle for changes to laws or to educate the market. Regarding the first two definitions, entrepreneurs in much of the region report a lack of understanding and suspicion of the concept. Tiwa York, a managing director of the e-commerce arm of Thailand's Sanook.com, says that at early Bangkok "Web Wednesday" networking events (digital industry events also held in Singapore, Hong Kong, Thailand, Dubai, Sweden and China), people expected a product launch. Even now Mr York is still trying to break down the competitive mindset to one of collaboration. "I'm always asked, 'What if your competitors come in?' I say 'Welcome'. We can't compete over the limited dollars that are available today. We have to invest in building the whole thing up."

Indian entrepreneurs, too, are cautious to not to reveal their hand. Deepak Gullapali, the CEO at Ace2Three.com, describes people as being guarded at networking events, generally preferring not to discuss new ideas that they have had. "They are worried that someone will create their project before they have a chance to do it," he says.

In terms of market collaboration, however, some Indian companies are beginning to see the value. Hari Nair, the CEO and founder of HolidayIQ.com, an Indian online travel service, says his company collaborates with online travel agencies to allow users to compare prices. It also provides hotel reviews for Google. "People now see that, if you feed something into an ecosystem, you don't lose anything. In fact, it helps," says Mr Nair. "In the old days someone would think 'why should I give my content away?' but now it's your calling card [someone who sees his reviews elsewhere might well visit his site]."

Entrepreneurs in Malaysia speak of a greater appetite for industry collaboration than exists in some of Asia's other markets. As well as plentiful networking opportunities, there are also many open source projects that developers contribute towards. One example of collaboration is Hack-in-the-box, a developer community that looks at cyber security issues. It started in Malaysia and has since become a global community with annual conferences in both the Malaysian capital, Kuala Lumpur, and the Dutch capital, Amsterdam. Malaysia's government is also active in promoting industry collaboration and frequently funds conferences that bring developers together. This is something that South Korean entrepreneurs would welcome. "I think that compared with other countries, the Korean gaming industry has a very good general environment, including talent, hardware, IT infrastructure and so on, but in order to develop our competitiveness, we need to promote collaboration more," says Sung Jin Kim, a director at an online games publisher, Neowiz

Games. "This could be another mission the government needs to think about."

Industry collaboration is already well-entrenched in Japan. "We have a lot of strategic partners, or alliances," says Junichi Akagawa, a managing director in the CEO office of DeNA, one of Japan's leading mobile game companies. "In the Internet business, customer acquisition channels are very important. Without collaboration with other major players, it's very difficult to thrive on your own."

Among DeNA's alliances in Japan are Yahoo! Japan, Mixi (a social networking site) and au/KDDI (a mobile phone company). In South Korea DeNA has a partnership with Daum, a web portal, and in China with mobile phone and Internet companies.

Rather than collaborating to foster innovation, Taiwan's online ventures have banded together out of necessity as the industry has matured. Mr Lin, at Appworks Ventures in Taiwan, says that the first ten years of the Internet industry there were marked by stiff competition and little collaboration. As the landscape has evolved and become more regulated, particularly in the realm of e-commerce, competitors have begun to see mutual gain from working closely together. Traditional foes PCHome and Yahoo! Taiwan now have their chairman and managing director, respectively, sitting on the board of the Taiwanese Internet and E-Commerce Association.

Perhaps this is the path that collaboration in Asia will take, at least initially. Rather than developing an ecosystem for technology transfer and innovation, Internet entrepreneurs will focus on building strength in numbers to push the industry's agenda.

Conclusion

Outlook

The operating environment for Asia's Internet companies could be much improved, with clearer regulation and a more general commitment to enabling the sector to grow.

The extent to which Asia's Internet entrepreneurs flourish into global contenders will depend on a number of factors. First will be the ambitions of companies themselves. As our research has found, Internet start-ups can find global audiences with very little effort indeed. But pursuing a global business will, in most cases, require a complete change in mindset, as shown by Japan's Rakuten and its adoption of English as its official language.

Second, for Asia's less developed countries, a major issue will be the growth of the home market for Internet-related businesses, allowing companies to achieve scale and attract funding. This will require continued high economic growth of the sort that brings more people into the middle class, with the purchasing habits and spending power that this status represents. But development will also require targeted government action. This raises the third factor—regulatory change.

In several countries across the region, the laws governing Internet companies are either unclear or clearly impractical, leaving local companies at a disadvantage versus their international competitors and hindering their ability to scale into international markets. For example, the need for extra manpower to monitor user-generated content is a clear inhibitor for any business trying to scale. What is needed is clear and consistent legislation that creates a solid foundation for Internet companies and builds consumer confidence in online channels. The European Union's E-Commerce Directive, which covers virtually every commercial website, is one example of well-drafted legislation. It regulates the information that Internet companies must provide to consumers, how contracts are formed, and what Internet service providers and other caching and hosting services are, and are not, liable for.

As well as making clear the legal obligations of Internet companies, governments in many Asian countries must make the necessary regulatory changes to allow a modern and efficient online payments infrastructure to develop.

In many markets around the region, change must begin with a better understanding, on the part of governments, of the specific challenges facing Internet businesses, and a more general recognition of the growth opportunity that online commerce represents.

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