Microsoft response to the

Boston Consulting Group's Economic Impact Report:

Ahead of the Curve: Lessons on Technology and Growth from Small Business Leaders

October 3, 2013 (Long format)

Small business, big impact

Contents

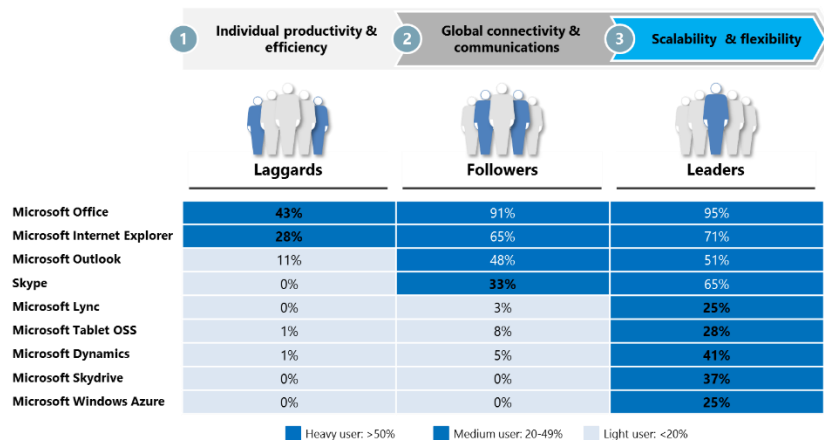# Chapter 1: SMEs are growth machines

Introduction

The challenges of job loss and the economic crisis over the last 5 years have stimulated lots of conversations and research. Some IT skeptics have suggested that technology will destroy more jobs than it creates since IT is so effective at improving productivity.

In fact, the opposite is true. New research shows that over the last three years, tech-savvy small and medium-sized enterprises (SMEs) created more new jobs and drove more revenue gains than SMEs using little technology. That's one major conclusion from *Ahead of the Curve: Lessons on Technology and Growth from Small Business Leaders*, an economic impact report based on a global research project commissioned by Microsoft and performed by the Boston Consulting Group (BCG). The study surveyed 4,000 SMEs with primary research in 5 countries and secondary research in 19 countries.

The research is important in several ways. First, it is relevant to government officials seeking new sources of much-needed local growth, and since **SMEs represent up to 75% of all jobs in some economies**, the opportunity is big. BCG estimates that if more SMEs employed the full range of available IT tools, including basic productivity software, Internet connectivity and new Cloud-based services, **SME revenue could grow by a combined $770 billion in just the U.S., Germany, China, India, and Brazil, the five primary countries surveyed. These same SMEs could also create some 6.2 million new jobs.** What's more, BCG believes that this association between IT adoption and growth would be consistent in countries across the world.

The research is important to SMEs because it reveals some best practices that set what BCG calls "technology leaders" apart and identifies what other companies need to do to catch up. In particular, it shows how new Cloud services are enabling small businesses to make business process changes and innovations to significantly grow their businesses.

The BCG research revealed additional information about SMEs and their product usage. Across nearly all product categories, these fast-growing SMEs use more Microsoft solutions than slower growing SMEs do, and that SMEs view Microsoft as the top partner for new and future technology needs, above all others. In fact, when asked what technologies survey respondents could not live without, they chose **Microsoft Office as the top productivity application** over all others. What's more, SMEs that adopted Microsoft Cloud services grew faster than SMEs who do not use any Microsoft products. "The BCG research reveals that Microsoft products and services are the number one choice of these technology leaders" says Vahé Torossian, Microsoft's corporate vice president of Worldwide Small and Mid-market Solutions and Partners organization. **"Microsoft is the brand that small businesses trust and use to power their growth."**

	Laggards	Followers	Leaders
Microsoft Office	43%	91%	95%
Microsoft Internet Explorer	28%	65%	71%
Microsoft Outlook	11%	48%	51%
Skype	0%	33%	65%
Microsoft Lync	0%	3%	25%
Microsoft Tablet OSS	1%	8%	28%
Microsoft Dynamics	1%	5%	41%
Microsoft Skydrive	0%	0%	37%
Microsoft Windows Azure	0%	0%	25%

Individual productivity & efficiency (1) — Global connectivity & communications (2) — Scalability & flexibility (3)

Heavy user: >50%   Medium user: 20-49%   Light user: <20%

Source: EIS SMB survey, March - April 2013; Based on ~4000 respondents: ~1200 from the US, ~700 China and India, and ~650 from Germany and Brazil

Exhibit 1: "Technology leaders" use more Microsoft solutions than "technology followers and laggards" do

But at the same time, the research reveals a risk, because SMEs adoption of IT is uneven. Across the world, lots of SMEs, and their customers, don't have access to modern broadband networks, and many lack the skills to benefit the most out of IT. SMEs are also still using large amounts of old and less efficient hardware and software. New machines are sometimes very expensive due to high import duties, and SMEs are concerned about online security and privacy. But the growth prospects described in the study are too important for governments and the IT industry to ignore.

The risk of a growing technology gulf is relevant to governments looking to maximize economic growth, and it is an opportunity for policy makers and the IT industry to implement strategies to remove barriers to IT adoption by addressing the top concerns small businesses have about using more technology. "Our objective is to help more SMEs transition to, and benefit from, modern IT," says Mr. Torossian. "For customers, it means providing product training and helping SMEs understand the full range of available devices and services, but it also means community investments like skills training, and partnering with governments and communities to remove the bigger, systemic barriers that hold SMEs back."

Based on the barriers identified by survey respondents, Microsoft identified public policies in the following 4 areas as ways to help more SMEs access advanced technology:

- Ensure affordable access to technology, including universal broadband networks, interim solutions for faster network such as "super Wi-Fi," dynamic spectrum access and TV white space technology, reduced import tariffs for devices, discounts for SMEs by tech providers and free Wi-Fi
- Skills development for young entrepreneurs and SMEs
- Government driven incentives for SMEs, such as e-government services to reduce bureaucracy and lower SME fees, reduced cost and fast track SME patent applications
- Legislation/regulatory change to protect SME data privacy and security

The research

Microsoft has a long history of looking at the local impact of its products. Since 2004, the company has studied the revenue and job creation effect on local economies of its partner-centric business model, which relies on over 640,000 partners in its worldwide ecosystem. Understanding the sheer size of the worldwide SME sector and its potential to help lift stagnant economies and provide real jobs, Microsoft asked the Boston Consulting Group (BCG) to study the economic impact of IT on small businesses today.

In what has likely been the biggest SME IT research project ever performed, BCG surveyed more than 4,000 SME business decision makers across China, India, Brazil, Germany and the US about the technologies that they use. Based on levels of technology adoption, survey participants were categorized into one of three groups: Technology leaders, followers and laggards. Technology leaders employ the full range of available tools—from productivity software to Internet connectivity to cloud-based services. Followers make widespread use of well-established tools but do not use any Cloud-based services and laggards are defined by even lower levels of technology adoption, with only 60 percent using computers. BCG then correlated this data with the companies' business performance over the past three years, looking for linkages to high performance and impact on local economies in terms of job and wealth creation.

BCG's survey revealed that over the last three years, across all markets, **SME technology leaders grew almost twice as many jobs and 15 percentage points more revenue than their laggard peers.** The survey dispels misperceptions from IT skeptics that productivity increases enabled by IT result in a net job loss. The facts show that the opposite – increased IT adoption creates significant economic opportunities.

The BCG report makes clear that such opportunities for tech-enabled benefits have come along before. For example, the first wave of broad IT adoption, driven by the PC and basic productivity tools like Microsoft Office forever changed how organizations operate by enhancing individual productivity. BCG calls these tools the "foundational" capability of many businesses today. The second large wave of IT was

based on networks, such as the Internet, which transformed "entire industries by putting information, knowledge and decision-making power directly into consumers' hands."

But it is the third wave of Cloud-based services that sets BCG's technology leaders apart. Cloud-based technologies give companies of all sizes access to the kinds of services that have to-date only been available to the largest companies, at a fraction of their cost. They allow SMEs to benefit from technology, without requiring deep IT expertise and they eliminate the need for big, upfront expenditures in favor of more manageable ongoing operational expenses. They do so by shifting some of the computing and data storage to the network, where economies of scale allow Cloud vendors to reduce the costs of providing such services. Microsoft is unique in having been the leader in providing software solutions to small businesses through all three waves of technology.
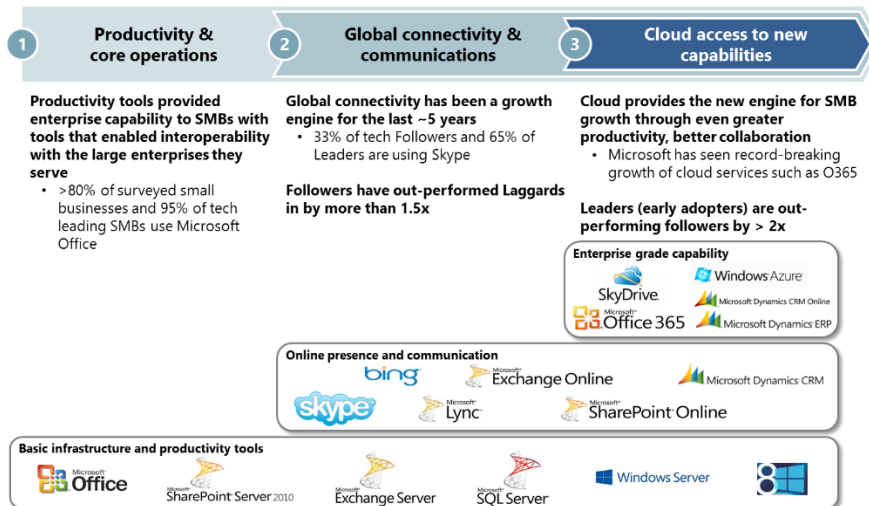
Exhibit 2: Microsoft has enabled SMEs across all three waves of technology adoption, and is now powering the next wave with devices and services.

Chapter 2: Helping SMEs become "tech leaders"

The transition

Understanding how to get the most out of existing technology investments can be daunting to small businesses, and trying to keep abreast of new technologies can be harder still. No wonder that lots of SME decision makers struggle with IT investments and keep older solutions far longer than they should. Microsoft wants to help, by providing advice on how to make the journey more manageable, how to find training and how to get hands-on help from one of our thousands of local partners.

Any SME can immediately begin the process of powering their business with productivity technology by using Microsoft Outlook.com (email), Skype (computer to computer voice, text and video communications) and/or Office Web Apps (creating, editing and sharing Excel, Word, PowerPoint and OneNote files from virtually any browser) – all of which are accessible at no cost. These tools help an SME get started quickly, and can improve core capabilities like productivity and connected communications. They are a great introduction to technology solutions and help SMEs become familiar with the benefits these productivity tools offer.
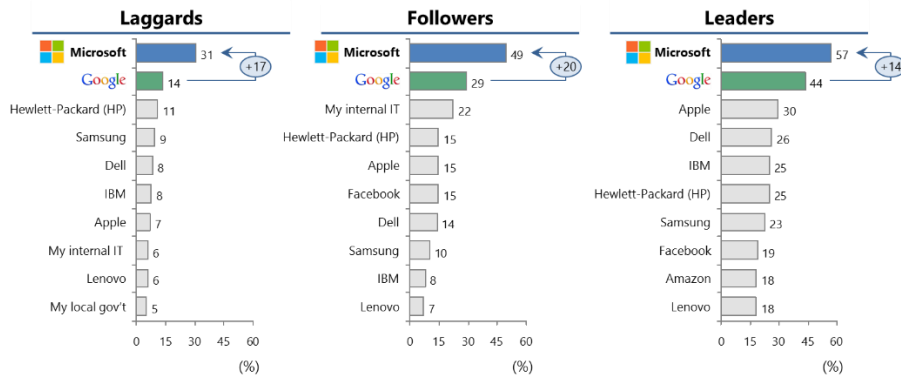
As an SME's success and business needs grow, Microsoft has additional paid offerings from which the SME can gain additional value, starting with the Office suite (full, desktop versions of Outlook, Excel, Word, PowerPoint and OneNote) and Windows 8 and ranging up to more robust solutions such as Office 365 (complete Office in the cloud, enabling consistent access across laptops, tablets and smart phones), Windows Server and Microsoft Dynamics CRM. They can progress from using high-quality productivity tools at the individual PC level by adding further capabilities such as mobility, business intelligence and hybrid deployments across on-premises and Cloud solutions. In this way, SMEs can scale and grow through effective use of technology as their needs change, thus accelerating their shift toward tech leader from whichever category they are in.

Microsoft also makes significant investments by making Office technologies available to students at low cost, which helps ensure skills for the workplace, and as a donation to non-profit organizations. Such institutions are less motivated by profit but are still passionate about finding better ways to deliver great outcomes in their local communities.

Training opportunities

In the area of training, Microsoft has worked deeply with local communities to help ensure that current and future SME leaders have the technology skills they need. Basic business resources – from how to create a business plan to how to improve your network's security – are available for SMEs. Free online classes and tutorials on Microsoft products help users ramp up their proficiency. Local partner networks offer SMEs hands-on training on Microsoft technologies. And technical training is available online for developers learning to use more sophisticated software and services. The result: SMEs in the survey identified Microsoft as their top partner when it comes to preparing their company for new and changing technology. Click here to see a list of training opportunities from Microsoft and its community partners.

Who do you view as a **partner** when it comes to preparing your company for new and changing technology? **(top 10 responses)**

Laggards
	%
Microsoft	31 (+17)
Google	14
Hewlett-Packard (HP)	11
Samsung	9
Dell	8
IBM	8
Apple	7
My internal IT	6
Lenovo	6
My local gov't	5

Followers
	%
Microsoft	49 (+20)
Google	29
My internal IT	22
Hewlett-Packard (HP)	15
Apple	15
Facebook	15
Dell	14
Samsung	10
IBM	8
Lenovo	7

Leaders
	%
Microsoft	57 (+14)
Google	44
Apple	30
Dell	26
IBM	25
Hewlett-Packard (HP)	25
Samsung	23
Facebook	19
Amazon	18
Lenovo	18

Exhibit 3: BCG survey participants selected Microsoft as the top partner for helping SMEs prepare for new and changing technology

SMEs' technology planning "to do" list

Based on discussions with survey participants, BCG developed guidance for SME decision makers on how to broadly manage technology as an asset, anchored with an analysis of where a firm is and where it wants to go.

Understand and manage your employees' technology skills:

The process of moving toward more modern IT is anchored first by understanding the existing IT skills base within an organization. BCG suggests that small firms document the current skills base of its employees and identify and address gaps in tech skills. Since skills evolve quickly in parallel with new technology, this record of tech skills requires constant review.

Rethink the cost equation when assessing technology investments:

SME decision makers should identify their long-term growth goals, and then seek help from people around them, or from IT professionals, to identify the technology solution that could help them reach those goals. This analysis should include new subscription Cloud services, which can reduce the amount of money needed to invest up front as new technology solutions are introduced.

Embrace new opportunities made possible by technology and experiment with different solutions:

Technology leaders in the BCG survey described themselves as constantly adopting and innovating with technology, and often introducing new business models. Moving quickly is important in a competitive environment, but so is experimenting with new technologies. Sarah Yang, CEO of MNE Creations in China, which delivers educational games on mobile devices, described it best in the survey, "We use a variety of cloud services. We also have been trying some enterprise software as well. When we feel we need something, we'll try it out. We've tried many different CRM solutions, and we're trying some new online supplier resource management services now."

The BCG survey results reveal that twice as many technology leader believe that they are more innovative thanks to technology, and these leaders rely highly on Microsoft technology. That they consider themselves innovative should come as no surprise when you see what SMEs are actually doing to grow their businesses.
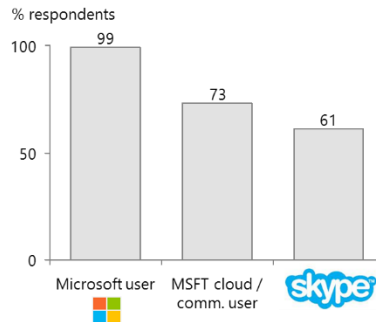
Twice as many say they are more innovative thanks to technology

"Technology has greatly improved my *innovation*"

% respondents[1]

Laggard	14
Follower	19
Leader	33
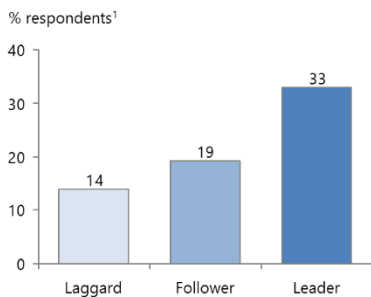
"Innovative" firms use Microsoft

MSFT penetration among respondents who classify themselves as "more innovative" thanks to tech

% respondents

Microsoft user	99
MSFT cloud / comm. user	73
Skype	61

Exhibit 4: Leaders use technology (and Microsoft) to innovate

Learn from your own technology leader customers:

Finally, BCG offers the advice that SMEs should learn from their own technology leader customers. Their current expectations of how they want to do business with suppliers and partners will likely soon be the technology expectation of lots of customers.

One more lesson focuses on the importance SMEs place on trust and reputation. When asked what led them to decide to use specific technology vendors such as Microsoft, Apple and Google, **SMEs in the survey cited "vendor reputation and support" as at least five times more important in their decision-making than "vendor price levels". Only 6% cited "the cheapest price" as being the deciding factor**. Microsoft scored well as the top partner when it comes to helping SMEs think about technology and the future.

Reducing security worries

Data security leads the list of top concerns for SMEs, followed by privacy, malware and reliability, but advances in Microsoft's Cloud technologies are enabling small businesses to build their business on technology that will keep their data safe, secure and manageable.

For many SMEs, the idea of handing over data to third parties triggers red flags, especially as small business-focused Cloud services are still evolving. According to BCG's research, 64 percent of respondents across both developed and emerging economies cited data security and privacy as top barriers to Cloud adoption. However, the same survey showed that an average of 33 percent of SMEs didn't even realize the technologies they're using are actually compromising their data security and privacy – and this is even higher among US (41 percent) and Brazilian (45 percent) SMEs.

However Cloud-based online productivity and collaboration suites built with security and privacy in mind can actually reduce SMEs' worries (such as email security, data loss, and back-up). According to a recent Microsoft-commissioned AMI-Partners study that yielded almost identical findings (66 percent cited security and privacy as a top concern), a top business driver for SMEs moving to the Cloud was on-demand access to data and information in a secure environment. For those who remain weary, further concerns can be mitigated by partnering with a vendor that provides transparency regarding its policies on data privacy and has a heritage in providing enterprise-grade data security.

Microsoft, and its local partners, are committed to SMEs

Between 2004 and 2011, Microsoft supported research that looked at the local economic impact of our partner business model. The last report in 2011 revealed that for every $1 in Microsoft revenue worldwide, local partners earned $9.16. "Microsoft stands out with a business model that stimulates local economic growth through partners and supports local economies," says Mr. Torossian.

The model means that the larger IT industry and customers benefit even more than Microsoft does. Our

platform innovations offer opportunities for other companies in the ecosystem to build, deploy and manage their own applications and solutions. These partners also help enterprise and small businesses learn about technology choices and they can manage the introduction of new technology that these businesses buy. We consider these companies invaluable partners and unlike many of our competitors, our business model is heavily depended on the success of our partners. So our goal has always been to help these local partner ecosystems grow even more. In this way, local economies have benefitted from Microsoft's business model as more and more local companies began to build on Microsoft's platforms.

This diverse software development community has not always been so. Until the early 1980s, large players were organized vertically around business sectors, rather than horizontally. This vertical market structure tended to force most businesses to buy all of the hardware, software and most, if not all, services from the same vendor. As a result, interoperability between systems was neither encouraged nor desired by the largest suppliers.

Microsoft, from its beginning, held the view that PCs would only become universal if software was easy to use, inexpensive and capable of doing many different things. So instead, Microsoft adopted a partner-oriented business model based on open standards and interoperability. Microsoft opened its interfaces to the world so that any developer — including competitors — could build products that ran on the Microsoft platform. As more companies innovated on the platform, more users were attracted to the environment, encouraging more development and economies of scale drove down prices. This partner model has enabled millions of people around the world to build skills, get jobs and create new businesses.

Worldwide, Microsoft works with more than 640,000 partners. The vast majority of these are innovative small and medium-sized enterprises with growth ambitions. These companies are critical in enabling effective use of IT, including Cloud solutions since local companies are the most knowledgeable on local business and regulatory issues, and thus best situated to develop effective solutions and address the technology needs. Through its global partner network, Microsoft has a significant local presence in more than 170 countries. These partners provide vital hands-on training and support for SMEs. "Our partners around the world offer tremendous value to SMEs," says Mr. Torossian. "SMEs and local communities need smart local solutions to enable a wave of innovation across the economy."

Chapter 3: Lessons learned from SME tech leaders: IT matters, not size

The survey revealed five lessons on how tech leaders use IT to drive growth. From new start-ups who begin in the Cloud to create new markets, to emerging markets where technology is being boldly applied to expanding across borders in search of staff and customers, small business leaders are applying technology in new ways to create new business models. "The ability to get to market quickly and easily connect employees, partners and customers matters a lot more than size when it comes to competing. This is where the right technology can drive impact," says Mr. Torossian.

Lesson 1: Leaders reach new markets and collaborate with customers and talent

BCG's research shows that technology leaders are six times more likely to have cross-border customers and 24 times more likely to have international employees than technology laggards. Geographic expansion is easier to accomplish today with new technology and communications tools, but BCG's technology leaders argue that feedback loops can be even better, with two-thirds of the leaders believing that they have more satisfied customers because of technology.

Technology also enables far-flung employees with today's network-based communication and collaboration tools. This is especially true in emerging markets, where one-third of SMEs have employees outside their home region, and nearly 20% have employees located internationally.

Regardless of distance, the same technology tools that enable employees to be outside a home office can also help improve local connections within an organization. Information isn't always written in a document and often it resides in someone's head, so business agility will be determined by how quickly people can make connections to information and to each other.

Another reason internal technology tools are becoming more important for small businesses is that employees are demanding the same kinds of tools and services they use at home. Take tablet devices that can be controlled by touch, without a keyboard or mouse. Touch is probably the biggest breakthrough in the last decade to make interaction more natural, but which also make computing easier and more mobile. Employees also want to use the same kinds of services at work to share information with coworkers as they do at home with friends.
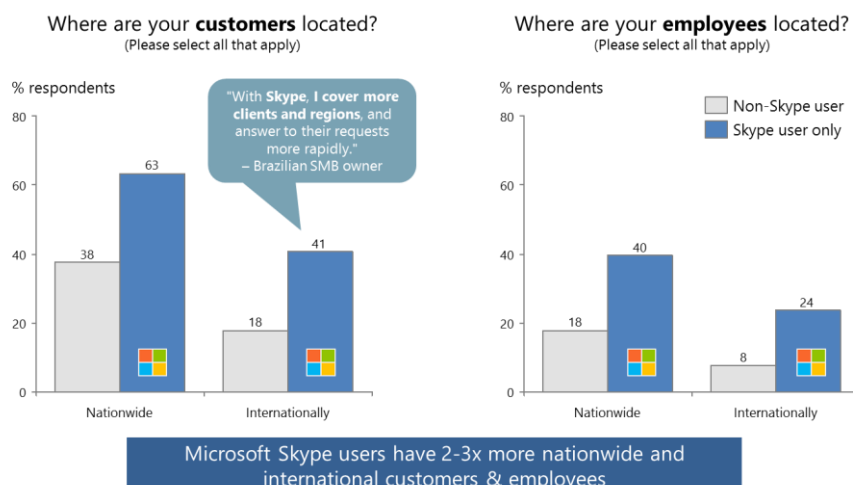
Exhibit 5: Leaders use technology to reach new markets and talent
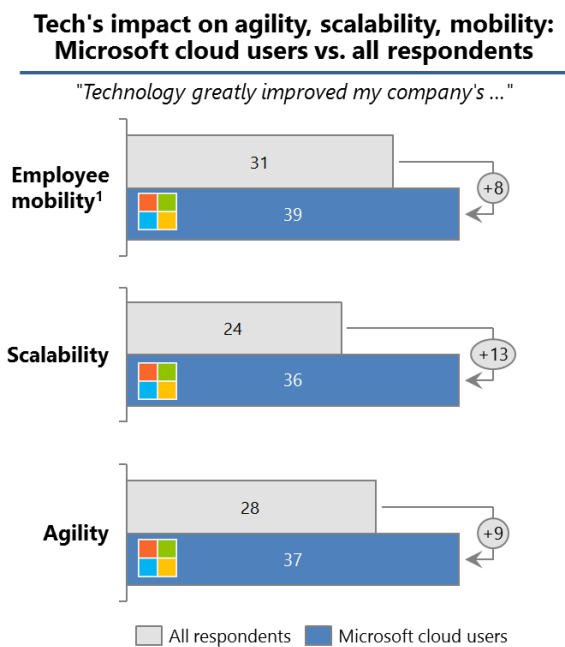
The survey found that at 65% penetration, Skype is important to SME technology leaders. Skype has been offering free communication tools to millions of users for 10 years and usage grew 41% year over year in the last quarter ending June, 2013, with over 300 million users each month connect for more than two billion minutes each day. It is a powerful software-enhanced alternative to more

expensive fixed lines. Skype has also moved beyond calling to encompass a wide variety of ways to communicate, including instant messaging, file sharing, screen sharing, video messaging and more. Skype, which was originally available only on a computer, is also now available on a wide variety of platforms, allowing people to communicate with each other regardless of operating system.
Many SMEs access Cloud-based services on a variety of devices, including tablets and smart phones, which enable employees to stay connected on the run. This mobility and device flexibility is especially important in nations with limited access to broadband. For SMEs in these countries, mobile devices are often the only way to go online. "We use Skype every day to strategize," says Susan Mashibe, founder of TanJet, a private jet services company in Tanzania and a survey participant. She also plans to use tablets connected to the Cloud to enable her field employees to access flight information delivered over a Microsoft Dynamics solution, without having to go to an office. TanJet employees can continue to use this software offline as well. This flexibility is especially critical in Tanzania, which has unreliable and limited Internet access.

Lesson 2: Leaders capitalize on Cloud technology's scalability and flexibility

Agile small businesses employing Cloud services with powerful pay-as-you-go capabilities means gaining access to the same kinds of advanced tools as large companies. It also means outsourcing more of the IT function to a managed service provider, because the applications do not need to be on a customer's site. This has the advantage of allowing companies to reduce their costs by not having to buy, install, maintain and operate hardware or software beyond their desktops. Instead, companies pay only for what they need, effectively growing their IT investment incrementally and flexibly, as they need to.

For the IT manager, Cloud services also mean less time looking after the "digital plumbing." Instead they are freed to focus on the real challenge at hand: wringing the greatest possible value out of IT systems and using information to deliver a tangible business advantage.

Tech's impact on agility, scalability, mobility: Microsoft cloud users vs. all respondents

"Technology greatly improved my company's ..."

|	All respondents	Microsoft cloud users	
Employee mobility[1]	31	39	+8
Scalability	24	36	+13
Agility	28	37	+9

Exhibit 6: Microsoft Cloud users credit technology with more agility, scalability and mobility than all respondents

The BCG research found that many SMEs credit Microsoft's solutions for greater scalability and flexibility and that Microsoft Cloud-adopters grow faster than their peers who do not use any Microsoft product.

Microsoft Cloud solutions are affordable and designed with small businesses in mind, with a combination of on and off-premise solutions, which means SMEs can move into the Cloud incrementally, as they become ready to do so. Unlike many other Cloud offerings, Microsoft enables people to work whether they are online or not. "Microsoft makes it affordable for small businesses to get started with enterprise-grade Cloud services," says Mr. Torossian.

Those that adopted Microsoft cloud services grew faster than SMBs that do not use Microsoft
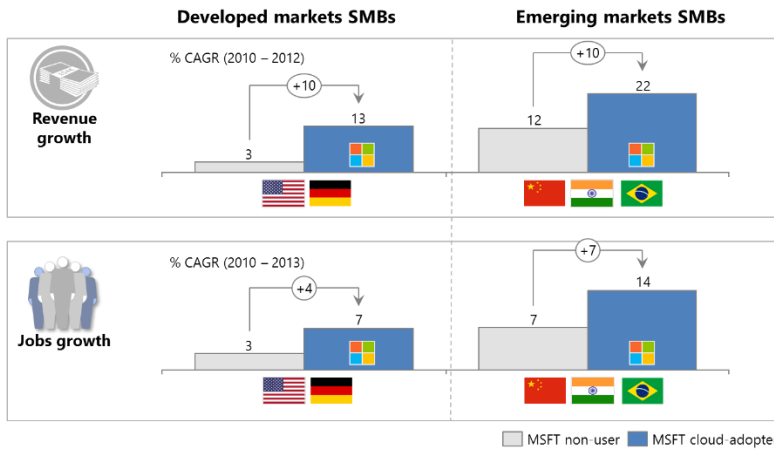
Exhibit 7: Microsoft Cloud adopters grow faster than their peers

The Cloud also provides resiliency and built-in redundancy. Following major natural disasters, such as the earthquake in Japan and the tsunami in Thailand, companies with Cloud capabilities such as data storage and infrastructure and software as a service were back up and running in hours, while those that relied on on-site hardware and software were devastated. Says survey respondent Sarah Yang, founder of MNE Creations, a Shanghai-based creator of mobile educational games: "It is very handy and comforting to know that you have a backup somewhere if the hardware fails."

Lesson 3: Leaders use technology creatively to operate more efficiently

All SMEs in the survey cite Microsoft productivity tools as critical to their business, and four out of seven software applications that SMEs in developed markets rate as critical to their business are from Microsoft. It is even higher in emerging markets, where five out of eight applications that SMEs rate as critical to their business are from Microsoft. What's more, 95% of all technology leaders use Microsoft Office.

Tech leaders also appreciate the role that technology plays in enabling more efficient and collaborative employees. Most leaders also believe that their employees get more done, are easier to manage and work better together thanks to technology.

*You mentioned that you used the following technologies. Which of the following are the most important (i.e. without which your company could not compete or function)? (select **up to four**)*

US & Germany: top 10			China, India, and Brazil: top 10		
Laggard	**Follower**	**Leader**	**Laggard**	**Follower**	**Leader**
Desktops	Desktops	MS Word	Desktops	Desktops	MS Word
Printers	MS Word	Desktops	MS Excel	MS Word	MS Excel
MS Word	Printers	Laptops	MS Word	MS Excel	Desktops
MS Excel	MS Excel	MS Excel	Laptops	Laptops	Laptops
MS Internet Explorer	Laptops	MS Outlook	Mobile Phones	Printers	Gmail
Laptops	MS Outlook	Smart Phones	Printers	Gmail	MS Internet Explorer
Mobile Phones	MS Internet Explorer	Printers	MS PowerPoint	MS Internet Explorer	Skype
Mozilla / Firefox	On-premise servers	MS Internet Explorer	Google Chrome	Google Chrome	MS PowerPoint
MS Outlook	Mozilla / Firefox	Adobe Acrobat	MS Internet Explorer	Mobile Phones	Adobe Acrobat
Smart Phones	Adobe Acrobat	Gmail	MS Outlook	Smart Phones	Printers

Legend: ■ Microsoft ■ Google ■ Adobe ■ Mozilla ■ Device

Exhibit 8: Microsoft productivity tools are identified as tools that SMEs could not compete or function without.

Office 365 has become the fastest growing commercial business in Microsoft history. It provides SMEs with a familiar Office experience that's always up to date and can be accessed anywhere, from virtually any device. Office 365 also includes Lync, SharePoint, Exchange and Yammer, which enables modern scenarios including HD video conferencing and collaboration for meetings, file sharing and collaboration, enterprise social capabilities, and much more. "Office 365 helps small and medium businesses grow and compete using enterprise-class Cloud communication and collaboration tools," says Mr. Torossian.

Green Fuels is a small and innovative alternative energy firm specializing in biodiesel equipment manufacturing company in the UK. They switched to Office 365 to help the 12-person company meet the demands for alternative energy across the world – and it has helped them grow in a big way. Prior to moving to the cloud, Green Fuels' on-premises consumer conferencing technology lacked reliability and availability – especially for a company with an increasing need to collaborate across borders and time zones. Before Office 365, 80% of the company's revenues were from the UK, and 20% internationally.

Since working with partner Cloud 20-20 to transition to Office 365, Green Fuels now has a modern, professional IT infrastructure to power its business growth. Revenues have grown, with roughly 90% now coming from outside the UK, a complete reversal from the time before Office 365. In the words of Green Fuels CEO James Hygate, "Microsoft Office 365, Dynamics CRM and Windows Intune have made us more professional, efficient and productive. Office 365 allows us to collaborate and work effectively in real time when we are working in different location all over the world and we can also better serve our partners and customers."

Lesson 4: Leaders innovate, experiment, and embrace tech-enabled business models

The BCG survey results reveal that twice as many technology leader believe that they are more innovative thanks to technology, and these leaders rely highly on Microsoft technology. That they consider themselves innovative should come as no surprise when you see what SMEs are actually doing to grow their businesses.

Technology leaders also recognize the growing power of big data. IDC reckons that 90% of the world's data has been created in the last two years alone. As the quality of data online grows exponentially technology leaders are increasingly looking toward Cloud solutions to store, mine and analyze it.

As cloud technology proliferates, big data insights will shift to the masses. The outcome will be smarter cities, greater academic learning and discovery, better and more health/wellness initiatives, more efficient use of natural resources, safer energy acquisition, better customer service and more accurate risk assessment.

Vidalink, a small business that administers prescription drug plans, is the kind of business on which Brazil's economic recovery might depend. Although some 35 million Brazilians had private health insurance, second in number only to the U.S., most insurers were unable to offer prescription drug benefits due to cost and supply chain issues. At the same time, many Brazilians shunned expensive medicines, hindering recovery for individuals and causing more sick days for their employers.

Luis Gonzalez, Vidalink's founder and survey participant, set out to address both problems by using advanced technology to tackle the issue of managing the complexities of drug benefits programs. Today, Vidalink, Brazil's first and largest pharmaceutical benefits management (PBM) company, is also one of the country's foremost administrators of drug benefits. At the core of its success lies a software platform that links 15,000 Brazilian pharmacies and manages a million transactions a month with the help of two parallel data centers synced through a private Cloud. The company's revenues have doubled and its workforce has grown 50 percent to 185 since 2010. "We are faster and can customize to a greater extent than our competitors," Gonzalez says. "We can also innovate more quickly."

Gonzalez is one of many entrepreneurs around the world who recognize the extent to which modern IT can dramatically empower SMEs. "The thing about a PBM business model is that it's very scalable. I can send one patient to these stores or 1000 patients to these stores and my revenues will increase dramatically relative to the incremental cost," Gonzalez explained in the survey.

Lesson 5: Leaders adopt technology in smarter ways, so that they get more from their technology investment

There's a unique group of small businesses leveraging and benefiting from the Cloud in extraordinary ways that we call "Born in the Cloud" SMEs, defined as those that built their entire business on Cloud technology versus an on-premises infrastructure. Industry research suggests that the majority (75 percent) of small businesses today start online.

Having embraced the Cloud since day one, these technology leaders have realized benefits beyond those often associated with Cloud computing. In fact, according to BCG, the founders of businesses created in the past three years are approximately 1.5 times more likely than older businesses to credit technology for their existence and these are the same technology leaders who far outpace non-Cloud-adopters in terms of revenue and job growth. **The BCG research found that many SMEs credit Microsoft's solutions for greater scalability and flexibility and that Microsoft Cloud-adopters grow faster than their peers who do not use any Microsoft product," says Mr. Torossian.**

Chapter 4: Reducing barriers to SME Tech Adoption

Public Policies

At Microsoft, our local teams work with governments and policy makers across the world to develop public policies that can help strengthen national competitiveness, including local innovation and economic opportunities. "BCG's growth projections of jobs and new revenues from more SMEs harnessing the power of IT, are too big to ignore," says Orlando Ayala, Microsoft's chairman of emerging markets. "Small businesses need governments to help minimize barriers and consider incentives to supercharge these potential sources of growth."

Based on the top reasons why some survey respondents have been slow to adopt IT, the following is a list of policy proposals that governments and policy makers should consider as ways to enable SMEs to access technology and use it better:

1) Enable SME Tech Adoption and Access

- Promote connectivity. While universal broadband should remain our ultimate goal, governments don't need to wait. They can explore creative alternatives that provide immediate benefits and access such as super Wi-Fi, dynamic spectrum access and TV white space technology and encourage the adoption of offline IT solutions and other industry-leading tools.
- Help provide SMEs affordable access to technology including software, services and devices. This can be done by for example reducing tariffs on imported computing devices, or encouraging technology providers to provide discounts to SMEs.
- Promote the development of a local IT ecosystem of developers and other IT professionals that can provide support, localization, and customization for SMEs to enable a smooth transition to the Cloud.
- Lead by example, delivering easy and low-cost access to government services through the Cloud. Governments can also build Cloud platforms that enable SMEs to adopt Cloud technologies more quickly and cost effectively. Alternatively, governments should consider offering incentives to use cutting edge IT services, such as this example from India that offers subsidized Cloud services to SMEs.
- Encourage a competitive ecosystem that promotes choice and innovation. They should resist the urge to dictate technology choices and Cloud architecture, such as all off-premise, or all based on one vendor, or one development model.
- Improve their services and facilitate SMEs by creating new online services and streamlining existing offline one-stop-shops to make it easier to start a new business, such as these SME-friendly government service portals in Mauritius and Hong Kong.
- Ensure that worker mobility is promoted through strategies such as telecommuting, so that SMEs have access to more talent and the sources of employment are more flexible. A great recent example is from Colombia, where Microsoft worked with the ICT and Labor ministries to develop a telework/mobility policy focused on getting more people to work and, at the same time, off the roads, including people with disabilities.

2) Create SME Incentives

- Support policies that address privacy and data security concerns. In partnership with the private sector, ensure laws and resources are in place to prevent, deter, and punish cybercriminals.
- Consider tax incentives to increase and ease SME tech adoption.
- Consider R&D incentives to stimulate local innovation.
- Promote SME exports to enable economic growth and job creation. IP incentives and protections for SMEs can also enable them to more effectively compete in the global market.
- Use local SMEs themselves to help reach national agenda objectives. For example, China could encourage SMEs to help build IT infrastructure and deliver services to businesses and citizens as part of its next 5 Year Plan.

- Encourage competitive government procurement processes that explicitly include SMEs, such as this example in the UK encouraging SMEs to bid on public sector projects.

3) Promote the SME Workforce
- Promote a workforce equipped with the business and productivity skills needed to build and sustain innovative industries. Consider training and retraining programs for existing workforce.
- Educate the next generation of entrepreneurs and SME founders and equip them with skills to succeed. For example business and IT classes can be required in primary and secondary education curricula. Skills in science, technology, engineering and math are root enablers that serve as the foundation for 21st Century jobs
- Encourage public-private partnerships to help educate and promote skills development for the workforce and next generation of SME founders.

Equally strong opportunities for emerging markets and women

One more focus area for policy makers is to recognize that the opportunities presented by technology to emerging markets are just as important as the opportunities in developed markets. While technology leaders are a diverse group, the BCG research shows that the economic benefits of IT hold across all markets, transcending industry, geography, gender and macroeconomic conditions.

For instance, technology leaders in emerging markets do not lag their peers in more advanced markets. **Leaders in emerging markets are even quicker than their developed market counterparts to embrace new tools. More than 80% of tech leaders in emerging markets use Cloud services, communication tools, and enterprise resource planning software, while only 60% of tech leaders in developed markets do so.**

Another promising finding was the disproportionate role of successful SMEs characterized as technology leaders that were founded by women, particularly in emerging markets. In most economies, women lag men in education, wages, and technology access. Worldwide, 25 percent fewer women than men have access to the Internet, and the gender gap reaches 40 percent in sub-Saharan Africa. In the U.S., only 58 percent of women participate in the workforce compared with 70 percent of males, and this disparity rises in India to 29 percent of women and 81 percent of men. But women are taking power in SMEs and their primary asset is education. In Brazil, where President Dilma Rousseff is one of the world's most powerful women, 60% of all university graduates are now women.

Among those surveyed, the **women-owned tech leaders with female founders have bridged these gaps and achieved average revenues that mostly match or surpass those of male-founded companies**. In our survey, tech-leading SMEs that are woman-owned were more likely have a company website, social media pages and online offerings such as online stores and portals for customers. The difference is most stark in emerging markets. In India, for example, among those surveyed, women-owned-firms are 1.5 times more likely to be technology leaders.

Microsoft firmly believes that when women are fully engaged in our workforce and society they drive innovation and advance economies, which is why Microsoft works with our partners such as UN Women to leverage this innovation and utilize technology as a catalyst for improving the lives of women.

To encourage women and IT, Microsoft is reaching middle and high school girls with tools and programs, partnering with educational institutions to engage with undergraduates in the field of computer science, raising awareness of the importance of mentorships and providing opportunities to women in the computing field. **"What we are seeing is that technology can help level the playing field for groups with historical disadvantages in business,"** says Mr. Ayala. "Microsoft is committed to enabling people from all over the world, **especially youth and women, to bridge the opportunity divide, by providing skills, tools and resources to create their own business or getting a job.**"

Microsoft's community investments enable SMEs

Microsoft has partnered with governments, partners, local communities and others to help in the areas of education, employment and entrepreneurship. Our global company-wide initiatives include YouthSpark, aimed at empowering youth across the world, Microsoft Innovation Centers and Microsoft Ventures, an initiative aimed at helping entrepreneurs and small businesses.

There are more young people on the planet than ever before, yet youth unemployment is double the rate of the adult population. Countries are struggling to produce modern workforces that have the skills required for economic success, while at the same time there's a growing gap between the skills of unemployed workers and the skills needed to perform the jobs of today and tomorrow.

Our efforts to help SMEs are complemented by Microsoft YouthSpark, a global initiative that aims to create opportunities for 300 million youth in more than 100 countries during the next three years. This is a companywide initiative to empower youth to imagine and realize their full potential by connecting them with greater opportunities for education, employment and entrepreneurship. We reached 103 million youth over the last 12 months ending July 1, 2013. This includes programs aimed at young women, such as Women Aspire in Africa and our partnership with ProMujer in Latin America.

Microsoft partners with local governments, academic institutions, and industry organizations to establish Microsoft® Innovation Centers with the ultimate goal of fueling long-term economic growth in regions where the centers are located. The centers provide facilities, training, employment programs, and mentoring resources for software developers, IT professionals, students and entrepreneurs. Today, there are more than 100 Microsoft Innovation Centers in over 40 countries. Since every community has unique characteristics and conditions that can have a significant influence on its economic progress, each Microsoft Innovation Center works closely with local governments and educational institutions, forging relationships that address local economic challenges. Additionally, access to an on-line community and social networking between the centers helps with sharing best practices.

Microsoft Ventures is a global initiative to help entrepreneurs build great companies. We work with startups at every stage of maturity to provide the tools, resources, and expertise they need to succeed. The initiative is broad-based, and includes a community program, accelerators, and a seed fund. Our approach helps startups scale their business, bring innovative services to market and reach new customers.

Microsoft BizSpark, which provides entrepreneurs with access to local mentors, technology and support was launched in November 2008. Participating startups must be less than five years old, less than a million dollars in revenue and privately-held to qualify. The program offers software for the development and ongoing operation of marketing visibility. Since the launch of BizSpark, over 50,000 companies in over 100 countries have joined the program. The program connects these startups to a growing global community of over 2,000 Network Partners who can help entrepreneurs navigate the challenges of growing a new business.

Microsoft Ventures Accelerators enable top entrepreneurs to launch their company through an immersive 3-6 month program. Startups accepted into the programs gain access to business mentors, technical and design experts, office space and resources to help entrepreneurs quickly scale their business. The accelerators are located in several cities around the world, including Bangalore, Beijing, Paris, Seattle, and Tel-Aviv with more opening in Berlin, London, Moscow and Rio de Janeiro.

Through our global seed fund, we serve as a strategic partner and provide investments in early-stage companies. We focus on startups that align to Microsoft's product strategy and draw on our unique experience, expertise and resources to help them reach new markets.

In February 2013 Microsoft launched the 4Afrika initiative, a multi-year effort through which the company will actively engage in Africa's economic development to improve its global competitiveness. 4Afrika focuses on three critical areas: World-class skills, access and innovation. The programs goal for 2016 is for one million SMEs to have an online website and 200,000 Africans trained on skills for employability.

Microsoft's commercial pilots in Africa, which fall under the 4Africa initiative, are designed to demonstrate the commercial feasibility of TV white spaces and test potential business models through partnership with local SMEs. (Kenya case study, Tanzania blog).

To empower ISVs, startups and software developers across Asia, Microsoft and the Asian Development Bank partnered with IT Associations, private sector technology partners and universities to support and provide resources to software developers to create sustainable solutions for the economic, commercial and social benefit of governments, NGOs and citizens in the region.

At an overarching level, the Microsoft Partner Network helps to enable a spectrum of businesses such as systems integrators, outsourcing firms, and hosting providers, that in turn support the growth of startups.

The Opportunity Ahead

Given the economic importance of the SME sector, governments and policy makers who fail to encourage SME growth today could face stagnant economies tomorrow. "We want to partner with federal and local governments to ensure access to new technologies, support the training required to use them, and promote a legislative environment that allows SMEs to fully leverage these technologies," says Mr. Ayala. "Policy makers, and industry, need to foster the right conditions to fuel the growth of SMEs as key contributors to competitiveness, innovation, and jobs."

Evolution is brutal – and evolution in our real-time, connected digital world amplifies both the successes and the failures required to achieve growth and the greater good – but trying to do so, early and often, will lead to greater success in the long run.

The Boston Consulting Group's *Ahead of the Curve: Lessons on Technology and Growth from Small Business Leaders* study is based on primary research data from interviews of more than 4000 SMEs in 5 developed and emerging countries[1] and secondary research in a further 19 countries[2] across the world. A copy of the report can be downloaded at www.bcgperspectives.com after October 5, 2013.

[1] Brazil, China, Germany, India and the US
[2] Australia, Japan, Korea, Indonesia, Singapore, France, Italy, Netherlands, Spain, UK, Russia, Egypt, Israel, Kenya, South Africa, Turkey, Mexico, Colombia, Canada

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Founded in 1975, Microsoft (Nasdaq "MSFT") is the worldwide leader in software, services and solutions that help people and businesses realize their full potential.

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