

# Winning in the Global Services Economy:

A 21st Century Export Strategy for Job Creation and Growth

September 2014

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Centre for Digital Entrepreneurship  
+ Economic Performance





## About the DEEP Centre

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The Centre for Digital Entrepreneurship and Economic Performance (DEEP Centre) is a Canadian economic policy think tank based in Waterloo, Ontario. Founded in 2012 as a non-partisan research institute, the DEEP Centre's work shapes how jurisdictions build fertile environments for launching, nurturing, and scaling companies that will thrive in an increasingly connected world. We understand the changing drivers of success in the global economy and the critical interconnections between technology, entrepreneurship, and long-run economic performance. Our goal is to help policy-makers identify and implement powerful new policy levers to foster innovation, growth, and employment in their jurisdictions.

Join us in building a new foundation for prosperity. [www.deepcentre.com](http://www.deepcentre.com)

## Acknowledgements

The content of this report was prepared in discussion with Markle Initiative participants (<http://www.markle.org/economic/markle-economic-future-initiative>) for the purpose of stimulating an inspired dialogue about the future of global services and providing an evidence base to inform the Initiative's strategy. We would also like to thank DEEP Centre contributors Kirill Savine, Malinda Peck, Sonya Zikic and Tim Lane for their contributions to this report.



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## Winning in the Global Services Economy

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*“Thriving commercial enterprises, significant public infrastructure investments and a rapidly growing population of middle-class consumers in emerging nations are boosting global demand for cultural, educational and professional services.”*

In a global economy marked by ongoing economic uncertainty and a tepid recovery from recession, there are few hard economic truths to depend on; however, one that remains steadfastly accurate is the adage that demography is destiny. The demographic transitions underway across both developed and developing economies will have profound impacts on the economies of Canada and the United States, as well as their many trading partners. Growing populations of young, middle-class consumers in South Asia and Latin America, and the masses of small and medium-sized enterprises (SMEs) that employ them, will increasingly demand cultural, educational and professional services that domestic markets may not yet be able to provide. Conversely, aging demographics across Europe and East Asia will place increasing stress on overburdened health care systems, thereby heightening the need for innovative services and delivery models. Across each of these demographic transitions, the impacts of global economic growth will galvanize demand for environmental and technological services aimed at ameliorating an array of ecological, health and food-related challenges facing humanity.

If the late twentieth-century economy was marked by an explosion in goods trade following the elimination of barriers (both real and imagined) between East and West, then the early twenty-first century could well be positioned to give rise to an equally explosive rate of trade in knowledge-intensive services across national borders. Services already represent the largest share of the global economy, accounting for nearly 71 percent of global GDP, and the global services sector is growing faster than manufacturing.<sup>1</sup> The current growth trajectory in services, however, may pale in comparison to its future potential as thriving commercial enterprises, significant public infrastructure investments and a rapidly growing population of middle-class consumers in emerging nations creates significant new pockets of demand.

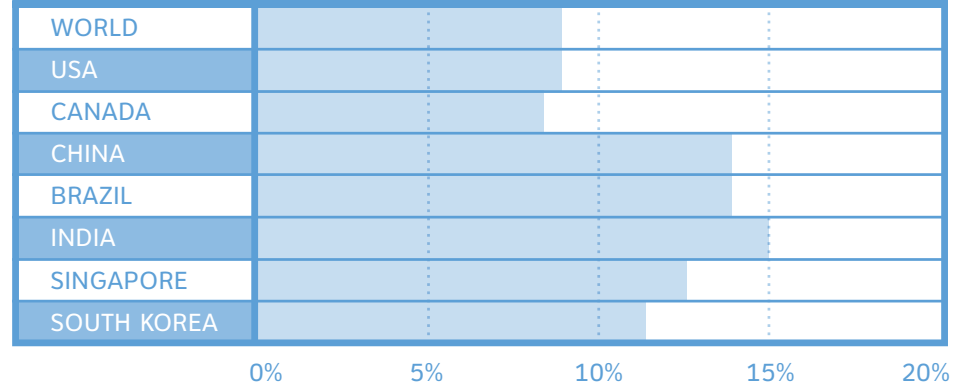
As of 2012, the global trade in services stood at US\$32.7 trillion. Capturing an additional one percent of global services trade would amount to an incremental US\$7 billion in exported value, providing a non-trivial boost to growth and job creation. Capturing the proceeds of the growth of cross-border commercial and consumer services, however, will not be easy. The share of global services exports garnered by mature economies such as Canada and the US is under increasing pressure from emerging economy providers. While both Canada and the US grew their exports of commercial services by approximately eight percent from 2005–2012, this accounts for just half of the growth achieved by Indian firms during the same period. Others such as Brazil, China, Singapore and Korea have performed equally well with services-export growth rates between 12 and 14 percent.<sup>2</sup>



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While the service sector represents an extraordinarily vibrant and promising aspect of the North American economy, public and private actors are failing to devote the resources necessary to properly understand and exploit its potential. As emerging markets intensify their efforts to grow their service sectors, these failures could open up worrisome gaps in capacity in the very domains where Canadian and American firms currently harbor significant competitive advantage. To succeed in a hypercompetitive global services economy, Canada and the US must fundamentally rethink their approaches to services and service exports. The research in this report suggests a number of important priorities for federal and sub-national policy-makers, and for private sector intermediaries and service providers.

TABLE 1: GROWTH IN COMMERCIAL SERVICES EXPORTS (2005-2012)



Source: WTO 2013

First and foremost, policy-makers at the local, state and federal levels must prioritize services as an export growth opportunity. The service sector, no less so than manufacturing, is critical for the future competitiveness of mature industrial economies and for sustaining social and economic growth. The services sector already accounts for the majority of US growth in GDP, productivity and job creation, and thanks to rapid advances in digital technologies and platforms, it also provides the most fertile ground for innovation. The relative importance of services, however, has not been adequately recognized in public policy circles, where concern about the decline of manufacturing captures a disproportionate amount of mindshare and resources. Of course, it should be noted that these goals are not mutually exclusive. A dynamic service sector is also critical to accelerating the competitiveness and pace of innovation in manufacturing and other industrial sectors.



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*“The services sector accounts for the majority of US growth in GDP, productivity and job creation. And thanks to rapid advances in digital technologies and platforms, it also provides the most fertile ground for innovation.”*

A large and growing service sector could also generate millions of jobs and promote more inclusive growth. However, policy makers must recognize that it will be insufficient to rely solely on the success of a handful of large, multinational service providers to drive significant growth in job creation. To do so, in fact, could be counterproductive. Large firms are more likely to respond to economic downturns by reducing employment and are twice as likely to outsource employment than are small firms.<sup>3</sup> Young companies, by contrast, are the engines of job creation, because they need people to find and develop opportunities to scale. From 1980 to 2005, firms less than five years old accounted for all net job growth in the US.<sup>4</sup> And, interestingly, 65 percent of jobs created in the United States between 1997 and 2008 were those that entrepreneurs created for themselves.<sup>5</sup> In Canada, the available data show a very similar distribution of net job growth over the 1999 to 2003.<sup>6</sup> Research by Industry Canada highlights that the number of Canadian entrepreneurs has grown by 57% between 1987 and 2011, far more than the 38% growth in the total number of Canadian employees over the same period. Together this data shows the degree to which freelancing and self-employment have become significant, albeit often overlooked, cornerstones of modern economic activity.

For the service sector to generate significant growth and job creation, it must become considerably more productive, innovative and globally engaged. Service-sector SMEs, in particular, will require various forms of support and capacity building in order to take advantage of export opportunities. For example, productivity gains, new innovations, increased international competitiveness and new channels to export can all be achieved with access to the best technologies. SMEs, however, lag large firms in the adoption of technology and would benefit from industry-government collaborative efforts to support technological investment. Helping SMEs build credit and investment readiness could also increase access to the growth capital needed to fuel investment in international expansion. Moreover, facilitating the development of enhanced management skills among SMEs can help prepare firm founders and executives for the challenges of scaling their companies.

While technology, financing and management acumen are all key ingredients for high-growth companies, boosting the export readiness of service sector SMEs is perhaps the most important capacity-building challenge. A significant body of economic research establishes a clear link between high-growth firms and their propensity to export abroad. However, only a tiny subset of services firms export. In the US, only 3.7 percent of SME service firms currently export. In Canada, the export intensity of professional services firms is 60 per cent less than for the manufacturing sector.<sup>7</sup> The gap in export intensity makes it abundantly clear that service firms could benefit significantly from targeted export development programs. Just as export development programs have boosted manufacturing exports over the years, a nation-wide network of public and private intermedi-



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ary organizations and platforms could address the capacity-building priorities listed above and lessen both the risks and transaction costs associated with international expansion. Such export readiness programs could provide a suite of services ranging from legal and regulatory counsel to export financing, market intelligence and training programs aimed at building managerial know-how. These services could be bundled and customized to address the needs of a variety of sector-specific SME groupings such as engineering, architecture, finance, legal, health, IT, digital media and accounting.

Another important conclusion from the DEEP Centre’s research is that private sector intermediary organizations and service providers must also rethink and retool their approaches to winning in the global services economy, starting with a concerted attempt to exploit growing demand for high-end services in emerging markets. The spending power of middle-class consumers in emerging markets is forecast to rise by US\$20 trillion over the next decade<sup>8</sup> When coupled with double and triple digit growth rates in spending on health care, education, infrastructure and the burgeoning need for business services to support a growing cohort of commercial enterprises, it is clear that emerging markets will be the most significant, long-term drivers of opportunity in the global services market. With lucrative opportunities awaiting in the fast-growing economies in Asia, Africa and Latin America, existing multinational service providers can ill afford to fall back on traditional export channels and strategies that target familiar markets in the West—nor should SMEs allow complacency or a lack of management capacity confine their operations to the relative comforts of the domestic market.

For a small-scale provider of, for example, architectural services or business consulting, emerging markets such as India, China and Nigeria may seem remote and unfamiliar, both geographically and culturally. But modern technologies and platforms are collapsing these distances and making overseas markets easier and less costly to reach. The tangible advantage of knowledge-intensive services is that they don’t require costly manufacturing, warehousing, or transport. They can be readily adapted and customized for different needs, languages and cultural sensibilities. And thanks to the Internet, a wide variety of services can be digitally enhanced and/or delivered using digital platforms, which creates new opportunities for service innovation and new possibilities to export such services to consumers, regardless of their geographic location.

Firms operating in sectors undergoing significant digital transformation—including health care, entertainment, education and many professional services—should seize the opportunity to reinvent the way they do business. Harnessing the Internet and mobile computing, for example, could allow savvy firms to package and deliver their services to billions of consumers in distant markets, thereby unlocking significant growth and innovation. The challenge for firms in mature

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economies is to understand the social, economic and regulatory dynamics of emerging markets so that digital services that can be successfully exported to these expanding economies.

Fortunately, new technological platforms and public-policy strategies are available to help usher service-providing SMEs beyond domestic borders and into the global services economy from day one. From call centers for customer support operations and cloud computing services to online sales and advertising platforms, the possibilities to connect, outsource and streamline are endless. Today's service providers do not need to be anchored to a traditional headquarters, and they can access international markets—once the exclusive domain of corporate giants—via platforms provided by the likes of Google, Salesforce, Skype, Facebook, Amazon.com, eBay, oDesk and FedEx. In addition to improving company performance, these platforms are also increasingly important in finding new clients and matching talent pools with job opportunities. Perhaps most importantly, service-sector entrepreneurs can access all of these business services at a fraction of the cost of building and managing them internally.

The DEEP Centre's focus on an SME-centric strategy for boosting service exports entails some challenges, but is nevertheless consistent with contemporary patterns of growth and job creation in the Canadian and US economies. To be sure, SMEs will face considerable challenges in exporting their services abroad, including a lack of managerial bandwidth and experience, regulatory and trade barriers, and a general pattern of inadequate investment in productivity-enhancing technologies. But these challenges are not insurmountable if policy makers act now to implement novel export-assistance strategies, methods and platforms to enable SMEs to gain a sustainable competitive edge.

The DEEP Centre report *Winning in the Global Services Economy* not only assembles a credible evidence base on which to craft a comprehensive strategy for boosting export growth, it also explains how public and private leaders can work together to increase the internationalization and competitiveness of service-sector SMEs. It provides a lens on how technology and entrepreneurship are reshaping a variety of key service sectors and builds a case for how the resulting transformations could lend themselves to increased exports to the global economy. The report introduces the concept of the micro-multinational and explains how these tech-savvy global operators could drive the expansion of service exports. It also examines some of the barriers to export expansion, focusing particularly on the obstacles that SMEs face in going global. Finally, an examination of novel export development strategies suggests new models for powerful export intermediary organizations that could enable SMEs to scale-up exports of a wide range of innovative services.

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## Mapping the Global Services Economy: Evolution and Opportunity

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Too often the growth in global trade and the rise of emerging economies are positioned as competitive threats that imperil the livelihoods of middle-class North Americans. To be sure, the emergence of lower-wage labor markets has undoubtedly undermined traditionally strong areas of Canadian and US manufacturing employment, but focusing only on the potentially negative impacts of economic globalization obscures the increasingly rich opportunity that comes with growth in emerging markets such as Brazil, China, India, Indonesia, Nigeria, Mexico and Turkey. The rapidly growing segment of two billion middle-class consumers in emerging markets command an annual aggregate spending power of US\$6.9 trillion. The concomitant growth of spending on education, health and infrastructure, as well as the burgeoning need for business services to support their growing commercial enterprises, firmly establishes these markets as key centers of demand for high-end services and makes them important drivers of long-term economic and employment growth.

Today, services-exporting firms in Canada<sup>9</sup> and the United States<sup>10</sup> are concentrated in sectors such as architecture, engineering, computer systems design, management consulting and software publishing. Most of their export activity is focused on within North America and Europe. However, as the global services economy evolves in the decade ahead, the geographic and business focus of services exporters could shift considerable. In the analysis below, we consider which international markets and sectors will offer the most significant opportunities for the expansion of service-related exports by Canadian and US service providers.

### The Evolution of Emerging Market Opportunities

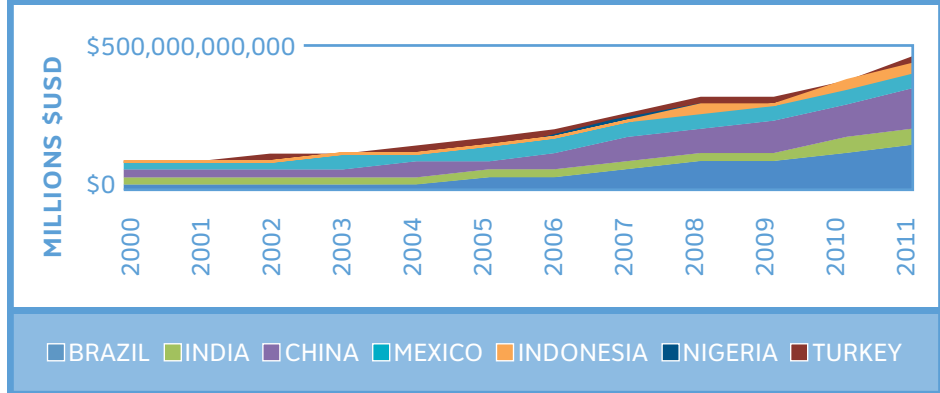
The spending power of middle-class consumers in emerging markets is forecast to rise US\$20 trillion over the next decade.<sup>11</sup> Brookings Institute scholar Homi Kharas estimates that by 2030, Asian countries, including India, China and Indonesia, will account for over 40 percent of this consumption.<sup>12</sup> Growing markets in the Americas (Brazil, Mexico), Eastern Europe (Turkey) and Africa (Nigeria) should not be overlooked either, given their significant economic growth. Hereafter, we refer to this set of countries as “BIC” (Brazil, India and China) and “MINT” (Mexico, Indonesia, Nigeria and Turkey) and present aggregate data across this grouping.

*“The rapidly growing segment of two billion middle-class consumers in emerging markets command an annual aggregate spending power of US\$6.9 trillion.”*



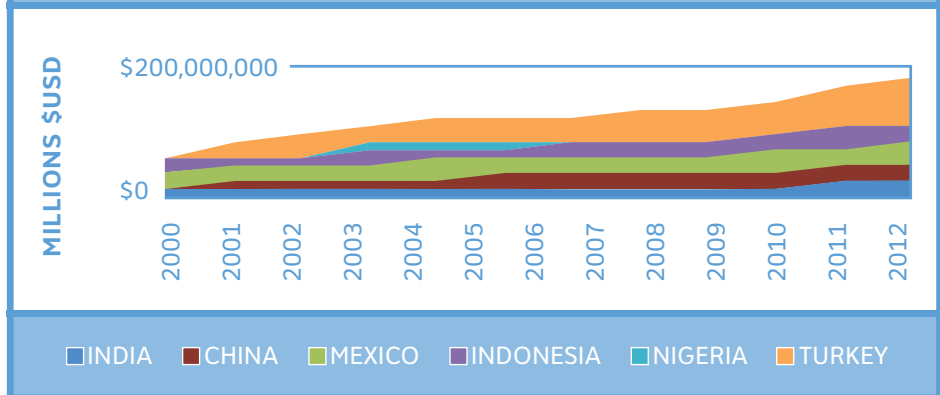
## Mapping the Global Services Economy: Evolution and Opportunity

FIGURE 1: EDUCATION EXPENDITURE



Source: OECD Data 2013

FIGURE 2: POST SECONDARY ENROLLMENT



Source: OECD Data 2013

Rising levels of personal consumption will no doubt be weighted toward products rather than services. However, as public spending shifts upward in tandem with growing personal incomes, the opportunity for cross-border service growth is substantial. Take, for example, public expenditure on education. As Figure 1 shows, spending on education has increased dramatically in both BIC and MINT countries over the past decade, and is now just shy of a half-trillion US dollars. Since 2001, aggregate educational expenditures from 2001 to 2011 have increased by an average of 375 percent in the BIC/MINT regions. While this spending has been largely focused on domestic wages and infrastructure, the growing cohorts of highly skilled students moving into post-secondary education and the workforce will both seek out educational opportunities abroad and make larger demands for complementary skills training. As Figure 2 shows, the near



## Mapping the Global Services Economy: Evolution and Opportunity

doubling of post-secondary enrolment rates in the BIC/MINT countries crystallizes the opportunity. A surge in personal incomes will similarly drive personal reinvestment in skills development that US educational and training firms can harvest if properly positioned to capitalize on these new markets.

There are similar opportunities in the growth of health care markets abroad. Public expenditure on health as a percentage of GDP has increased by over 30 percent in our sample of emerging economies. In nominal terms, this equates to the development of a US\$800 billion market for health care. As in education, much of this spending is dedicated to domestic workers and inputs. But as health-care systems mature, the demand for health-care-related knowledge, technologies and services will grow in tandem, creating opportunities for US suppliers to fill growing gaps to supply high-quality medical care and ancillary services. Rising incomes and consumer expectations could also pave the way for US services firms to tap demand for discretionary health and wellness services.

Beyond health and education, there have also been significant increases in an array of imported business, financial, telecommunications and professional services in these targeted economies. As Table 1 shows, despite the effects of the global financial crisis, imports of services across these economies have grown rapidly between 2007 and 2012, and should continue to grow in the decade ahead. (See Appendix II for a more detailed review of the growth in service imports.)

*“Capturing an incremental one percent of the annual US\$1 trillion trade in professional services trade would boost exports by an additional US\$1 billion annually.”*

TABLE 2: BIC/MINT GROWTH IN SERVICE CATEGORIES, 2007–2012

Services Category (Imports)	Percentage of Growth	Aggregate Import Value, in US\$
Financial Services	771%	11,730,026,067
Construction Services	605%	5,801,949,431
Insurance Services	78%	35,596,646,663
Telecommunications	73%	4,629,706,591
Other Professional Services	50%	115,432,289,372
Computer and Information Services	28%	11,717,871,264

Source: OECD Data 2013

### Quantifying the Economic Value of Expanded Export Activity

Based on 2012 data, the total value of services imports into the BIC/MINT economies in the six categories listed is over US\$184 billion. Quantifying the precise impact of expanded export activity in these sectors is difficult, if not impossible, but a thought exercise directed toward a conservative estimate of potential export gains is illustrative.<sup>13</sup> For service firms under the professional



## Mapping the Global Services Economy: Evolution and Opportunity

services category, which includes architecture, business consulting, engineering, legal and other professional services, the ability to capture an additional one percent of year-over-year import growth in the sampled economies would add an additional US\$115 million in export value. A similar thought exercise across the other services sectors yields incremental gains, as Table 2 shows.

TABLE 3: VALUE OF INCREMENTAL ONE-PERCENT SHARE OF IMPORTS

Services Category (Imports)	Value of Incremental 1% Share of Imports, in US\$
Financial Services	150,730,835
Construction Services	58,019,494
Insurance Services	44,582,821
Telecommunications	5,632,809
Other Professional Services	115,432,289
Computer and Information Services	5,468,339

Source: OECD Data 2013; DEEP Centre analysis

While this exercise is by no means definitive, it quite clearly illustrates the potential economic value and, by extension, employment growth, that lies in the expansion of services exports. Across just seven emerging economies, this exercise suggests potential gains of nearly half a billion dollars.

Across the Organization for Economic Co-operation and Development (OECD) member states, capturing an incremental one percent of the annual US\$1 trillion trade in professional services trade would boost exports by an additional US\$1 billion annually. Setting aside 2009 and 2010, where the effects of the global financing crisis severely depressed OECD services imports, in every other year since 2000, year-over-year growth in imported professional services has exceeded 10 percent. The opportunities that subsequently exist in this maturing market segment are significant. So too is the potential to capture a larger share of OECD, and in particular European, spending on health care. Thanks in large part to aging populations, public expenditures on health have doubled between 2001 and 2011, and show no signs of slowing. To be sure, the competitive dynamic within these mature economies makes it difficult to expand market share. But as talks progress on trans-Atlantic free trade agreements between the European Union and both Canada and the United States, the opportunities provided by such markets should not be forgotten.

*“A large variety of services can be digitally enhanced or delivered using digital platforms, creating new opportunities for service innovation and new possibilities to export innovative services to consumers in distant markets.”*



## Service Export Opportunities in Four Growth Sectors

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Unlike physical goods, services are intangible economic offerings—a property that makes them infinitely malleable and, in many cases, easily tradable. Services do not require costly manufacturing, warehousing or transport. They are highly customizable. Thanks to the Internet, a large variety of services can be digitally enhanced or delivered using digital platforms, creating new opportunities for service innovation and new possibilities to export innovative services to consumers in distant markets. At the same time, knowledge-intensive sectors such as health care, entertainment, education and professional services are undergoing significant digital transformation. In many cases, tech-savvy start-ups are smashing traditional business models and structures, replacing them with digitally enhanced services that can be exported to a global market.

Consider, for example, the emerging possibilities in just four of the sectors mentioned above: health care, professional services, education and entertainment.

### Health Care

A combination of new technologies and new health and wellness services is driving medical innovation and creating enormous potential to export these services to a growing international market. The array of health-care related services is vast, ranging from remote health monitoring and diagnostic services that can be delivered to patients over the Web, to consumer health and fitness tracking apps, to medical research platforms, big data analytics, clinical workflow systems and health care consulting services. When it comes to seeking out medical advice and services, the digital health platforms described below demonstrate that it no longer makes sense to think solely in terms of national health care systems. Digitalization renders medical knowledge and many health services truly borderless, making consumer health services and technologies an exciting and largely untapped arena for export growth. Consider the following examples:

*Consumer health apps.* Users of MedHelp.com, a popular online health service that attracts 14 million unique users a month, are able to track over 1,500 symptoms and treatments using a variety of iPhone apps covering both general health conditions, such as weight loss and allergies, and very specific disorders, such as infertility and diabetes. Patients can choose to share this information on an ongoing basis with their doctors or caregivers, who can, in turn, monitor this data for signs of health-related distress. Meanwhile, the maturation of wearable health-tracking devices will boost the utility of such consumer health information services. An inconspicuous, Internet-connected bracelet, the Jawbone UP, for example, will track your activity during the day, your sleep at night, and log food intake and mood to give users a better overall picture of health, happiness and calorie usage. As health-care systems abroad mature, the potential to leapfrog legacy systems will create significant demand for such services. Capitalizing on this potential market demand will require the ability to adapt to local require-



## Service Export Opportunities in Four Growth Sectors

ments related to language, sector structure and government regulation.

*Health care management platforms.* Practice Fusion has developed one of America's most successful digital platforms for Electronic Medical Records, with 100,000 doctors and 4 million patients already using it. Its revenue and employee headcount have grown 300 percent since 2012. Investments in language translation, market research and regulatory compliance could make the platform marketable in other large health care markets, dramatically increasing its growth rate. Or, consider 23andMe, the largest DNA ancestry service in the world. Using recent advances in DNA analysis technologies and web-based interactive tools, the company helps individuals understand personal genetic information. Subject to FDA approval, 23andMe also hopes to be able to inform customers about their genetic predisposition to disease. 23andMe already supplies its analytical services and ships DNA kits to customers in any country, except those where domestic regulations explicitly ban such services. Once again, an investment in language translation, market research and regulatory compliance could further boost international growth prospects.



**HealthTap provides a platform for doctors to operate a global online health practice**

*Patient consultations and virtual doctor's offices.* Accompanying these evolutions in personal health care technology is a series of service-delivery model changes that are revolutionizing the geography of health care delivery. Companies such as HealthTap provide the digital infrastructure for doctors to operate global online health practices, and allow patients to seek care from a diverse network of practitioners that collectively speaks 106 languages. Patients can store their medical records with HealthTap, ask medical questions to its expert network, and engage with a doctor of their choosing in a private online consultation. Initial patient questions are free, while private consultations are available for



## Service Export Opportunities in Four Growth Sectors

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a fee. According to The New York Times, HealthTap has logged nearly a billion questions and answers since its launch in 2011, from basic queries about headaches or the flu, to more complicated ones, like whether mechlorethamine is a cancer medication. Questions are routed to a physician who is both an expert in that particular field of medicine, and who is determined by an algorithm to be most likely to respond quickly.<sup>14</sup>

Doctors on Demand, MDLive and Doctor Spring also provide online platforms where patients can receive 24/7 support and consultation from a roster of licensed doctors and specialists. Patients can browse doctor profiles, assess their credentials, and choose a level of service that meets their needs. Like HealthTap, patients pay a fee for private consultations delivered over the phone or by online video. Doctor Spring currently provides around 1,000 such consultations per month. Founder Dr. Deepu Sebin notes that 10 percent of the consultation requests are from India, while the rest are from clients from around the globe.<sup>15</sup> Leveraging the strong brand reputation of North American medical training and expertise could generate significant export potential. Ten out of the top 20 ranked medical schools in the world are American, while another 2 are Canadian.<sup>16</sup> Demand for access to highly trained North American health professionals is growing. Platforms that enable emerging market consumers to consult these professionals for modest fees provide a rich opportunity to leverage brand trust into domestic employment growth.

*Medical sensors and remote monitoring services.* The development of medical sensors has led to new health monitoring and diagnostic services that allow consumers to obtain medical support or expertise without having to travel to a clinic or hospital. In December 2012, the FDA approved AliveCor's smartphone-enabled heart monitor, a single-lead electrocardiogram (EKG) reader that attaches to the back of a smartphone and displays heart rate info via an app. The US\$100 device enables an EKG to be done anywhere a smartphone goes, which in turn allows for rapid assessments of cardiac problems and real-time consultations with cardiologists using AliverCor's analytical services. This relatively low-cost device could also enable mass screening in developing countries, where cardiologists are comparatively scarce. The creator, Dr. David Albert, an Oklahoma-based cardiologist who likes to be called an "inventor," recently received significant funding Qualcomm (a major player in the wireless industry) to help scale up his new business.

*“Digitalization renders medical knowledge and many health services truly borderless, making consumer health services and technologies an exciting and largely untapped arena for export growth.”*





## Service Export Opportunities in Four Growth Sectors

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AliveCor's smartphone-enabled heart monitor

Nascent mobile health applications like the iPhone ECG are only the tip of iceberg. There are smartphone-enabled blood glucose meters, skin scanners, ultrasound readers, breathalyzers, spectrometers and much more. And while the “Facebook of digital health” has yet to emerge, there is growing start-up activity in all aspects of consumer health that will accelerate the boom in digital health services. Companies like Practice Fusion, Audax Health, Sharecare, Castlight, Care.com, 23andme and Zocdoc have each raised close to (or more than) US\$100 million in capital in the past 12 months. An analysis by RockHealth, one of the largest US-based health tech accelerators, found that US\$1.9 billion in venture funding flowed into digital health start-ups in 2013, an improvement on the US\$1.4 billion raised in all of 2012.<sup>17</sup> Other leading digital health accelerators include Blueprint Health, Startup Health, DreamIt, and the NY Digital Health Accelerator. Meanwhile, established companies like Google, Qualcomm and Sprint are weighing up major digital health services initiatives. Sprint, for example, recently partnered with TechStars to launch a three-month accelerator program and will provide participating health tech start-ups with mentorship, access to its carrier technology and application programming interfaces, support from its development teams, and access to testing labs and network engineers at its corporate campus.

Two main implications can be inferred from these examples of digital health innovation. The first is that the digitization of health care and the development of online health platforms is opening up a rich opportunity space for new services and delivery models—a space that is rapidly filling up with nimble start-ups. These services start-ups not only resonate with practitioners and consumers, they are attracting significant venture capital investment—a trend that will further accelerate the boom in digital health services and boost the management capacity of health services companies. The second implication is that the advanced health care capacity fostered in Canada and the United States



## Service Export Opportunities in Four Growth Sectors

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is, in many instances, well ahead of what other markets can supply domestically, which bodes well for the future export growth. Many of the innovative services noted here could be readily marketed to consumers and health care institutions around the world with some investment in an export strategy.

Digital automation is also enabling domestic health providers to reconfigure the skill mix required to deliver patient care, making the system less dependent on expensive specialists, while opening up expanded opportunities for a variety of health practitioners. The scope of what nurses can do medically has been growing for the past decade as the pool of primary care physicians shrinks, and the US Bureau of Labor Statistics predicts that the registered nurse will be the fastest growing profession between 2008 and 2018. New technologies and new models of health delivery could further accelerate this trend, while the patient consultation services cited here could allow health professionals and specialists to export their services to the developing countries that lack the infrastructure and trained personnel to supply those services domestically.<sup>18</sup> The health care sector is ripe for reinvention, which, in the context of boosting service exports, makes the health care space one to watch.

### Professional Services

Most professional services—whether financial planning or business consulting—have traditionally been delivered locally and entailed plenty of face time with clients. This is changing today, however, as smart investments in technology and marketing help firms scale up their offerings and enter new markets more readily than in the days when international expansion entailed setting up a regional headquarters, hiring a local sales force and building a capable service delivery network. Firms supplying architectural services to Asia, Europe or South America today, for example, could reasonably do away with much of this physical infrastructure—along with the layers of tracing paper and unwieldy blueprints—by building a multilingual website and collaborating with clients via email, Skype and a suite of 3D design tools. Using a popular Internet-enabled 3D modeling program called SketchUp, for example, an architect can mock up a design for a new corporate headquarters in Sao Paulo and share an interactive 3D model with their clients using Google Earth. Their model comes complete with animated walkthroughs and flyovers that explain every detail of their design, along with 3D terrain data, aerial photos and street view imagery that help place the new headquarters in context. Once the client approves the design concept, the architect might contract with an engineering team based in Sao Paulo to ensure that the architectural plans meet local building codes and standards.



## Service Export Opportunities in Four Growth Sectors

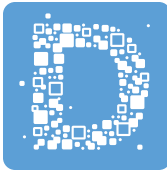


SketchUp's Internet-enabled 3D modeling program

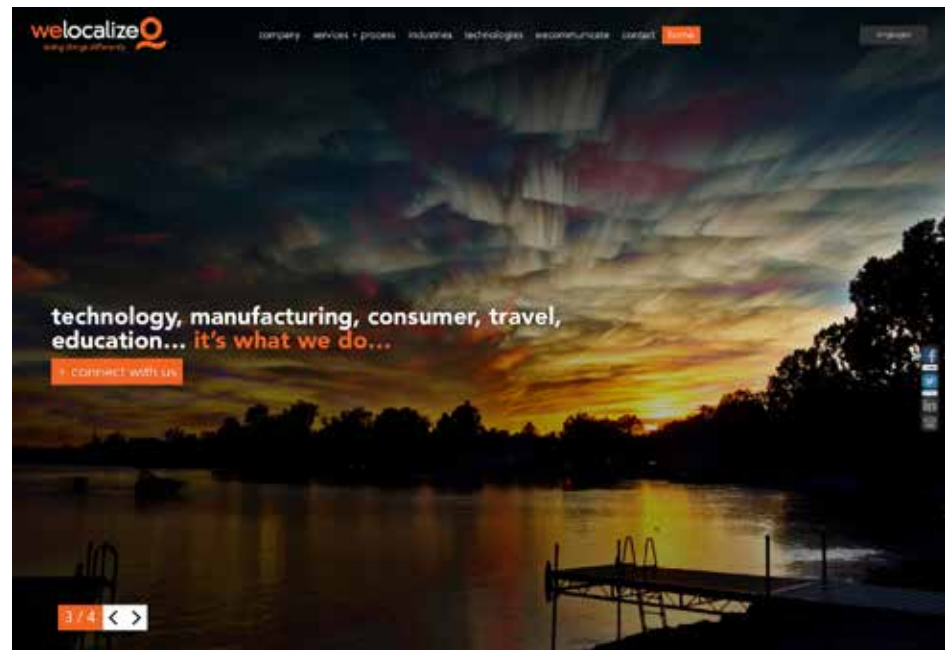
*“Smart investments in technology and marketing help firms scale up their offerings and enter new markets more readily than in the days when international expansion entailed setting up a regional headquarters, hiring a local sales force and building a capable service delivery network.”*

The emergence of new platforms and intermediaries suggests that a growing share of professional services could be delivered this way. For example, small firms and individuals that lack the business infrastructure to export on their own can tap international opportunities by marketing their skills using specialized marketplaces and platforms such as Blur's Global Services Exchange and Google Helpouts. Blur provides service providers a platform to bid on professional services contracts and projects around the world. It now hosts over 35,000 service providers from over 140 countries, and has facilitated the completion of nearly 4,000 projects worth nearly US\$160 million.

Launched in November 2013, Google Helpouts connects those who need help with those who can provide it over live video. From fashion and beauty, to cooking, to fitness and nutrition, the Helpouts platform was developed to satisfy market demand where and when Google searches are insufficient or where traditional business services aren't timely enough. People searching for help can browse through a directory of service providers that lists their qualifications, their availability and their price. Once a user has selected a provider, they can connect instantly or book a helpout session in advance. Service providers are pre-screened by Google to provide a measure of quality control, and an eBay-like reputation mechanism promises to help keep providers honest.



## Service Export Opportunities in Four Growth Sectors



WeLocalize makes it easier for SMEs to adapt their products and services to local markets.

For more mature firms, companies such as WeLocalize provide content translation, staffing and cultural adaptation services to clients seeking to expand their presence around the world. With 11 offices in the United States, the United Kingdom, China, Germany, Ireland and Japan, WeLocalize adapts and translates everything: websites, marketing materials, product manuals, software, legal materials and more. Its localization recruiting services also help exporting firms find local contractors and full-time employees in the countries where they do business.

If WeLocalize helps firms moving outwards, LawyerDingo provides a platform for those seeking to do business in the United States. Founded in 2012, this platform facilitates connections between clients and attorneys online by “identifying the right set of lawyers for a user, enabling the conversation with them by phone, email or video chat.” While focused primarily on domestic customers, for international SMEs seeking expansion to the United States, LawyerDingo provides a means of accessing US expertise. Since its launch, the site has nearly US\$1million in venture funding.

An additional area of significant potential for services exports is the corporate training market. Berlitz, the well-known language training company based in Princeton, New Jersey, offers an example of what shifts in technology have allowed forward-thinking companies to do. For over a century, Berlitz was in the business of paper-based language training manuals. However with the advent of the Internet and the commoditization of the lower end of the language training



## Service Export Opportunities in Four Growth Sectors

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sector, the company reinvented itself as a high-quality online education and training company. Through the use of virtual classrooms and cyber-teachers, the company now provides 24/7 business training in over 70 countries through a range of mobile mediums.

Perhaps more impressive is the story of Nova Scotia-based Velsoft, a provider of online training manuals for corporations. Headquartered in rural New Glasgow, population 9,688, Velsoft has served over 10,000 corporations in 162 countries with its online training programs. Over 45 percent of the company's revenues come from outside North America. Velsoft CEO Jim Fitt notes that the company's ongoing growth is due to growing demand for online learning. "A lot of countries that really didn't have access to training in the past can now have access by mobile devices," he said, "And by 2019, half of all training is expected to be offered via the Internet."

As noted earlier, capturing an incremental one percent of the OECD professional services market would mean an additional US\$1 billion in annually exported value. Doing so in an increasingly competitive global services economy (and generating a significant boost to domestic employment in the process) will require service firms to think creatively about their systems for international marketing and service delivery. Such efforts, however, are made significantly easier by the availability of online platforms such as Blur, Google Helpouts, and other complementary service firms such as WeLocalize, which ease the challenges of adapting content and communication to foreign markets.

### Higher Education

Like health care, higher education has been rife with digital innovation in recent years. Online course enrolment has skyrocketed in the United States, from less than 2 million students taking at least one course online in 2002 to over 6.7 million doing so in 2011.<sup>19</sup> The digital disruption of higher learning is taxing for universities and their faculties. But the shift to more online education heralds a significant opportunity to scale up educational service exports by taking advantage of the leading educational brands present in Canada and the United States to capture a larger share of the global market for higher learning. In fact, the market for higher learning is just one piece in a bigger puzzle. There is also a much broader array of professional and quasi-professional training services catering to a growing global cohort of people seeking to boost or reinvent their careers—from IT workers looking to upgrade their skills to emerging market companies seeking expertise to boost their leadership and management capacity.

One develops a sense of the potential international appetite for online educational services from the growing waves of international students that currently



## Service Export Opportunities in Four Growth Sectors

attend US institutions. In the 2012–2013 academic year, 819,644 international students flocked to US universities, up 40 percent from 582,000 in 2001–2012.<sup>20</sup> The top four places of origin for international students were China (29 percent), India (12 percent), South Korea (9 percent) and Saudi Arabia (5 percent), which together make up over 50 percent of students from abroad. According to the US Department of Commerce, international students contribute more than US\$24 billion to the nation's economy.<sup>21</sup> About 72 percent of all international students receive the majority of their funds from sources outside of the United States, including personal and family sources, as well as assistance from their home country governments or universities.<sup>22</sup> In Canada, over 265,000 international students attended Canadian institutions in 2012, spending close to CAD\$8.4 billion in Canadian communities, and earning government coffers over CAD\$450 million in tax revenue. In early 2014, the Canadian government announced a desire to near-double this number, aiming for 450,000 such students by 2022. In so doing, the government hopes to create over 86,000 new jobs and add upwards of CAD\$10 billion to the Canadian economy.<sup>23</sup> Across both jurisdictions, this data underscores the continued brand value of leading institutions in the market for higher learning and the significant potential to tap a far larger segment that remains overseas.



Udacity, the MOOC pioneer, now offers vocational training in addition to higher learning.

The aforementioned growth in educational spending and enrolment in post-secondary institutions in emerging markets further underscores the educational services export opportunity that smart companies can tap into. Sensing opportunity, educational start-ups such as Udacity and Coursera have partnered with major universities to bring massive open online courses (MOOCs) to eager students from countries such as Brazil, China, India, Russia and South Africa.



## Service Export Opportunities in Four Growth Sectors

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In 2011, Stanford professor Sebastian Thrun, for example, captured the world's attention when his free online course on artificial intelligence drew 160,000 students from around the world. Thrun sees MOOCs as the start of a teaching revolution, where the world's best professors run interactive online classes that reach hundreds of thousands of students around the world. To attract students, Thrun's earliest classes were offered for free. His company, Udacity, will make money down the line by charging students small fees. He and other MOOC pioneers see the courses as a democratizing force in higher education, possibly offering a master's degree for as little as US\$100. In doing so, MOOCs would break down economic, geographic, racial and gender barriers to higher education.

Despite the promising buildup, there have been some recent setbacks for MOOCs and online education pioneers in general. A study of a million MOOC users, released in December 2013 by the University of Pennsylvania Graduate School of Education, found that on average, only about half of those who registered for a course ever viewed a lecture, and only about four percent completed the courses.<sup>24</sup> These are early days, however, and any rush to write off MOOCs is premature.

It is worth remembering that it took several generations for mobile phones to progress from clunky and unreliable gadgets to indispensable devices, and the same is likely to be true of online education. Hybrid models that mix online and offline education are showing considerable promise, as are educational services aimed at business executives and vocational markets. For example, Massachusetts-based MathWorks, a leading developer of technical computing software for engineers and scientists, offers an extensive selection of online training courses and generates about 60 percent its revenues outside the United States. Udacity, the online education company founded by Thrun, is adding vocational training partnerships with corporations to its menu of online college classes. Decoded—a British start-up with centres in New York and Sao Paulo—offers intense training sessions that teach the essence of software coding and data visualization in just one day. And Coursera, the largest MOOC company, is experimenting with using its courses, along with a facilitator, in small discussion classes at some US consulates in emerging nations.



## Service Export Opportunities in Four Growth Sectors



Decoded offers intense training sessions that teach the essence of software coding and data visualization in just one day.

A huge market for training and educational services is opening up that will be infinitely easier to tap as the Internet becomes the dominant infrastructure for learning—both as a vast repository of knowledge and teaching materials, and as a global platform for student-teacher collaboration. The education and training services ecosystem is already becoming more diverse and the student body demanding these services is becoming more cosmopolitan. But rather than traveling thousands of miles to relocate in North America, it is foreseeable that a growing proportion international students will study at leading institutions online, or in some hybrid mode that mixes online and in-person learning. Several MOOC providers are already paving the way as they experiment with new pedagogical and business models. At the same time, the strategic affiliations between venerable US educational establishments and companies like Coursera and Udacity provides the marketing appeal that is poised to attract students from emerging markets in record numbers.

### Social Media and Mobile Services

It would be impossible to describe the global services economy of the future without giving due attention to one of the world's fastest growing and most tradable service categories: social media and mobile apps. Having already grown from one billion to over 2.5 billion users since 2006, Internet penetration will continue to skyrocket in the years ahead, thanks largely to the global ubiquity of mobile phones.<sup>25</sup> According to the International Telecommunication Union (ITU), the number of global mobile subscriptions reached 6.8 billion in May 2013, a penetration rate of 96 percent.<sup>26</sup> By 2016, there will be over 10 billion mobile devices, which means more connected devices than humans. While mobile devices are not evenly distributed, some 80–90 percent of the populations of Brazil, China, India, Indonesia and South Africa currently own one. Indeed, consumers in just three of these countries—China, India and Indonesia—will soon have three billion mobile devices between them.<sup>27</sup> Telecommunications networks

*“A huge market for training and educational services is opening up that will be infinitely easier to tap as the Internet becomes the dominant infrastructure for learning.”*





## Service Export Opportunities in Four Growth Sectors

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are already carrying close to 130 exabytes of data each year, the equivalent to 33 billion DVDs, representing an 18-fold increase mobile traffic in 2011.<sup>28</sup> The enormous increases in wireless data bandwidth forecasted means this upward trend will continue as the end-points for mobile applications grow.



Cell towers in Kenya where mobile penetration has reached nearly 70%.

This explosion of Internet usage has ushered in a dramatic power shift to companies that develop services and applications for Internet-connected devices, including smartphones, tablets, wristwatches and wearable computers. Just five years ago, Facebook had 150 million users; by the end of 2013, as the world's most popular social networking platform, it will have an estimated 1.5 billion users worldwide, making it one of the most successful consumer services on the planet. But social networking is now just one of a seemingly endless list of service categories that can be delivered over mobile devices to a potential population of billions of users around the world.

It is important to understand that new waves of mobile innovation at the device level will have a significant impact on the types of tradable services on the horizon and the opportunities for US and Canadian companies to design and optimize those services for consumption by middle-class consumers in emerging markets. Improved battery life, faster processors, lighter-weight materials and higher bandwidth networks, for example, are all on the way. But so too are increasingly power-efficient and flexible displays that will soon reach "retina resolution." Not only will new displays dramatically boost the clarity of text and images, their capacity to be flexible and even foldable will increase versatility, making it possible to embed displays in clothing and countless other surfaces. Smart devices will also incorporate a wide variety of new mobile sensors, such as biometric, pressure and pollution sensors. The development of infrared keyboards, gesture and retina tracking, enhanced artificial intelligence, and new context-aware user interfaces will accompany the emergence of new sensors, generating unimaginable new applications and form factors.



## Service Export Opportunities in Four Growth Sectors

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**Context-aware mobile devices will transform the way we search for information, people and places.**

As the technology evolves, so too will the way that we use and interact with mobile devices and hence the opportunities to invent and export new kinds of services. Today, a typical smartphone user reaches out to their phone 150 times a day.<sup>29</sup> As wearable devices proliferate, many of these interactions could become hands-free. The amount of fitness data shared from mobile and wearable devices is already doubling each month. Most of this data streams to the Web automatically without any intervention from the user. After photos and videos, the next big wave of content uploaded from mobile devices will be personal data. Not only fitness data, but location data, user reviews and check-ins fuelled by the rise of wearable and drivable mobile devices such as Nike Fuel, Google Glass or Waze-enabled cars.

Both Canadian and US start-ups are uniquely qualified to capitalize on these opportunities. Across both jurisdictions, a series of innovative clusters are catalyzing waves of ingenuity and creativity that are driving the current explosion of mobile services. But recent data suggests that mobile apps and related digital services are by no means a uniquely North American or European preoccupation. Emerging markets lag far behind in adoption, but skyrocketing consumption of mobile services suggests that a significant export opportunity exists for digital service providers that hone their services appropriately. In 2013, the global population of mobile users downloaded an estimated 70 billion apps and spent about US\$11.5 billion on mobile games alone, with the bulk of the revenue



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coming from established markets in Europe and North America.<sup>30</sup> Yet, some of the fastest revenue growth is found in Asia. An analysis of download volumes and revenues from the Apple App Store and Google Play found that South Korea is growing year-on-year by a factor of 10, Japan by a factor of four and China by a factor of 3.5.<sup>31</sup> Mobile gaming accounts for 71 percent of global revenues from the Apple App Store and Google Play, with entertainment and social networking also figuring prominently.

*“Emerging markets lag far behind North America and Europe in the adoption of mobile services, but skyrocketing consumption suggests that a significant export opportunity exists for digital service providers that hone their services appropriately.”*



M-pesa, a popular mobile banking application allows users to deposit, withdraw and transfer money with a mobile device.

Other research indicates that consumers in emerging markets are prepared to spend money on all manner of products and services, such as mobile banking, educational materials and health and agricultural information services. Indeed, the inadequacy of traditional service delivery channels in emerging markets has made mobile phones an increasingly vital platform for many essential services. A survey of consumers in Brazil, India, Nigeria and Saudi Arabia found that 70 percent of consumers seek access to social networks and 60 percent want access to news and entertainment.<sup>32</sup> Apps related to education are of interest to over half of respondents (52 percent), followed by business (47 percent), then health (41 percent), and almost one in five who would use their mobile to access public services (19 percent).<sup>33</sup> The estimated monthly spend of such mobile content and applications in emerging markets is already nearly US\$1 billion.<sup>34</sup> The fact that mobile computing allows everything from music to financial planning to



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health care services to be marketed to billions of potential customers makes mobile-enabled services a significant opportunity for digital service providers that invest in the localization strategies required to capitalize on these shifts.



## Scaling Services:

### Micro-Multinationals and Emerging Platforms for Growth

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The growth of knowledge-intensive service industries raises a set of related questions concerning the changing nature of entrepreneurship and the potential for technology to enable radical new models of service provision that did not exist ten years ago. The spectacular success of several well-known ventures in technological fields points, in particular, to Internet-based service innovation as a key factor underpinning the success of an important cohort of high-growth firms. Companies such as Google, Facebook and Twitter have, in little more than a decade, jumped from start-ups to top international businesses. Their presence in the economy has sparked interest among policy makers in the role of high-impact, technology-driven services firms in the creation of jobs and innovation. They are also highlighting a fundamental and lasting transformation in the way entrepreneurs build globally competitive companies, particularly in the role that technology plays in underpinning four essential attributes of success: exceptional productivity, creativity, agility and global scalability.

In recent years, across practically all knowledge-driven sectors, virtually every aspect of starting and running a company has changed beyond recognition. Whether searching for capital to fund an expansion or sourcing low-cost manufacturing options, gone are the days when entrepreneurs had to painstakingly build up their business infrastructure from scratch. With the aid of Internet-based business platforms, SMEs can now go global from day one, reaching overseas markets and talent pools with a few clicks.<sup>35</sup> Modern collaboration technologies not only put a much larger and more diverse talent pool within reach of any entrepreneur starting or scaling a business—they also allow talented individuals to work together in a seamless, global operation, despite being separated by time zones and geography.<sup>36</sup> Savvy designers can even manufacture and distribute entirely new product lines without having to own a physical plant or manage inventory.

Google and Facebook may have set the benchmark for modern businesses that leverage technology to scale globally. Yet, in many ways, these Internet giants are outliers in a broader population of high-growth micro-multinationals that are changing the rules of competition in numerous sectors. Swedish telco Sonetel, for example, provides a fascinating example of how such firms evolve. It offers global telecommunications services and virtual offices to nearly 250,000 small and medium-sized businesses in 235 localities. Remarkably, the company started just five years ago with one person in Sweden and a small team in India that bootstrapped the core telecommunications platform using open source components. Today, the company has 30 executives and engineers, some based on Sweden and some in India. In 2013, the company nearly tripled its revenues, exceeding its 2012 revenue figures by 184 percent. According to Sonetel founder Henrik Thome, the company is set for even stronger revenue growth in 2014 and plans to double its workforce.

*“With the aid of Internet-based business platforms, SMEs can now go global from day one, reaching overseas markets and talent pools with a few clicks.”*



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While the focus of this report is on services, it is worth noting that even old industrial manufacturing businesses are turning out to be ripe environments for tech-savvy micro-multinationals that are taking on bloated twentieth-century behemoths such as the auto industry. Take Local Motors, a radical new kind of car company founded in Chandler, Arizona by Jay Rogers, a former US Marine with a mission to reinvent automotive design and manufacturing. Unlike his conventional competitors, Rogers neither employs a large design team, nor does he do much in-house research and development (R&D). Instead, he has an online community of 37,000 freelance designers from 121 countries that use the Local Motors platform to pitch new ideas and collectively co-design next-generation cars. There are no massive manufacturing facilities and no shiny global headquarters to house tens of thousands of office workers. Instead, he makes cars using a network of three micro-factories, each one producing custom-built vehicles designed for that particular region. Local Motors employees 59 full-time staff and is developing a crowdsourced motorcycle, a boat, a US\$10,000 economy car and the world's first production-ready 3D printed vehicle.



Local Motors is the world's first crowdsourced car design and manufacturing company.

Two main implications follow from the growth of micro-multinational firms like Sonetel and Local Motors. The first is that economic might and company headcount are no longer tightly correlated. You no longer need to be a large organization with thousands of people on your payroll to design, develop and market excellent products and services on a global basis. The corollary is that being small is no longer a liability; rather, it's an asset, especially when you consider the fact that large companies are typically weighed down by bureaucracy, legacy costs, and dysfunctional hierarchies. Put simply, modern communications technologies and the cutting-edge business practices they engender are reshaping



## Scaling Services:

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the economic landscape and enabling a new breed of “micro-multinationals” that are leaner, more agile and more capable of exporting their products and services across borders.

The rise of micro-multinationals also has important implications for service providers and for the prospect of scaling service exports. Whether providing online training to business executives or health care advice to middle-class consumers in emerging markets, individuals, start-ups and SMEs can leverage the micro-multinational model to boost their competitiveness in the global market for knowledge-intensive services. What follows are some of the key advantages for Canadian and American service firms.

#### Lowering Costs and Enhancing Productivity

Mature-economy service providers compete directly with firms from lower cost jurisdictions that have already captured a significant share of the business services outsourcing market. But with the aid of technology, savvy service providers can eliminate unnecessary costs and take advantage of business platforms that allow executives to focus on honing their core business strengths.

Digital utilities and cloud computing, for example, make incredibly powerful IT and communications capabilities—the kind that only big companies could once afford—accessible to just about everyone. Unlike the previous generations, today’s entrepreneurs can buy, off the shelf, practically any computing or communications functions they need to run a company, including storage, word processing and free video chat services. Users of Amazon’s cloud computing services, for example, pay about 10 cents an hour to harness its nearly unlimited computing capacity, allowing anyone—from the computer geek testing a new algorithm from her dorm room to a Austin-based start-up that wants to roll-out a new call centre service without spending all its capital on computers—to leverage the size and reach of the world’s greatest e-commerce engine. With each passing day, the list of productivity-enhancing tools gets longer and longer, with apps for everything from file sharing and bookkeeping to salesforce management and customer support.

Tech-savvy firms not only reduce costs and overhead, they can significantly boost productivity. A study by Robert Hendershott, associate professor of finance at the Leavey School of Business at Santa Clara University, found that the availability of open source tools, cloud computing, and the rise of virtual office infrastructure has driven the cost of launching an Internet-based venture down from US\$5,000,000 in 1997, to US\$500,000 in 2002 and to US\$50,000 in 2008.<sup>37</sup> But even non-tech ventures stand to benefit handsomely from the availability of cloud computing services that require no up-front investment and can scale instantly as business demands. A McKinsey Global Institute report estimates that

*“Digital utilities and cloud computing make incredibly powerful IT and communications capabilities—the kind that only big companies could once afford—accessible to just about everyone.”*



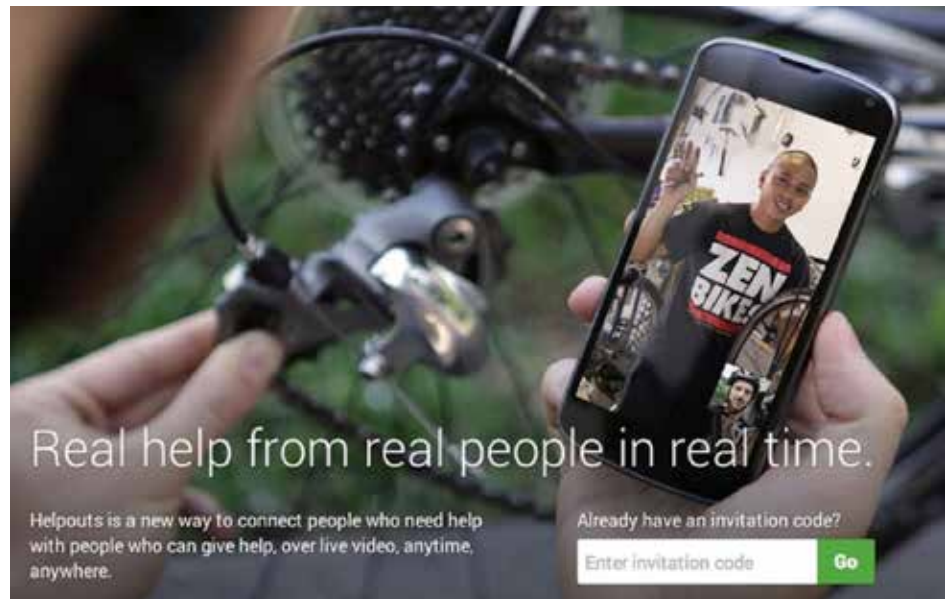
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at least one-third of all SMEs make extensive use of cloud technologies, and those that do have benefited tremendously, using new Internet-based services to perform the functions that entire departments once performed for large corporations.<sup>38</sup> Another in-depth study by the US Small Business Administration found that from 1998 to 2008, high-growth firms exhibited significantly higher productivity levels than other firms in every size and sector category thanks to greater investments in technology.<sup>39</sup>

### Scaling Service Exports Using Online Platforms

In the twentieth century, most firms needed to get big to attain the scale necessary to develop global distribution networks, to tap into international talent pools and to bring in the large revenues that drove profits and created jobs. Today's micro-multinationals, by contrast, rely on a smaller core of talented business executives and achieve global reach by replacing large investments in overseas staff and facilities with Internet-based business platforms and marketing.



**Google Helpouts provides a full-service platform for small companies and freelance service providers.**

The professional services section briefly described a handful of online platforms that assist SMEs to market and deliver their services internationally, including Google Helpouts and the Global Services Exchange. Together, these service aggregators with an infrastructure for service providers in areas ranging from accounting, architecture and legal services to career counseling, math tutoring and relationship advice. A variety of other platforms cater to specialized service niches. Coroflot runs a global talent design marketplace, with footprints in most of the world's major cities and connections with over 2,000 global companies.





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Companies can post opportunities or browse the design portfolios of thousands of designers in disciplines that include industrial, fashion, 3D modelling, architecture, illustration, graphic, user experience design (UX). Or consider Shapeways, a Dutch 3D printing company that hosts a burgeoning design marketplace for 3D printed products—a lot like Etsy crossed with a 3D printer.<sup>40</sup> From custom chess sets to decorative lampshades and prosthetic limbs, 3D printing designers and enthusiasts seem to have endless imagination when it comes to dreaming up new ways to shape plastics, ceramics and steel into new products. Shapeways reports that it has a community of 300,000 members and 10,000 shops selling over three million products in its online catalogue. Each month, the company receives, prints and ships 60,000 orders to customers all over the world.

Online business platforms and service marketplaces provide the infrastructure for international expansion and are attractive to companies that lack the capacity to assemble their own infrastructure for doing business globally. Google Helpouts provides a one-stop shop for service providers, including a directory, video chat services, ratings and reviews and a payment system. But such platforms will not work for all companies, especially those that would rather not have their services lumped in with hundreds, or perhaps thousands, of competing offers. For those companies, there is always the option to market services directly to overseas consumers and companies. Fortunately, online marketing makes such outreach more effective and less costly than ever before.

For entrepreneurs and SMEs, data-rich platforms for marketing and social networking create interactive and highly targeted marketing vehicles that enable companies to pursue international growth markets with much greater precision and impact than traditional media like radio, print and television. In the offline world of advertising, a publisher or broadcaster gathers particular types of people into an audience, and then advertisers purchase ads to reach that audience. Ads in highly coveted publications or broadcasts are very expensive, and the return on investment (ROI) on ad buys is famously elusive. Apart from local newspapers and classifieds, most SMEs find national-scale advertising prohibitively expensive, to say nothing of the cost of attempting to reach overseas consumers by securing ads in foreign language publications or broadcasts.

Today, a standard online ad targeting company that uses real-time bidding can offer targeted ads based on how users act (behavioural), who they are (demographic), where they live (geographic) and who they seem like online (lookalike), as well as something they call “social proximity.” They give advertisers the ability to choose the types of sites where their ads will run, based on parameters like publisher brand equity, contextual relevance to the advertiser and content quality. These highly targeted, data-driven methods of marketing not only work better than traditional media advertising, they are far more cost effective. An SME can not only buy an online audience for one-fifth the price of

*“For entrepreneurs and SMEs, data-rich platforms for marketing and social networking create interactive and highly targeted marketing vehicles that enable companies to pursue international growth markets with much greater precision and impact than traditional media like radio, print and television.”*



## Scaling Services:

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traditional media buys, they can bid on “eyeballs” in real-time across millions of sites without ever having to talk to ad salesman. With a few clicks, an SME providing business consulting services from its offices in Richmond, Virginia can be marketing its services 5,000 kilometres away in Rio de Janeiro, Brazil.

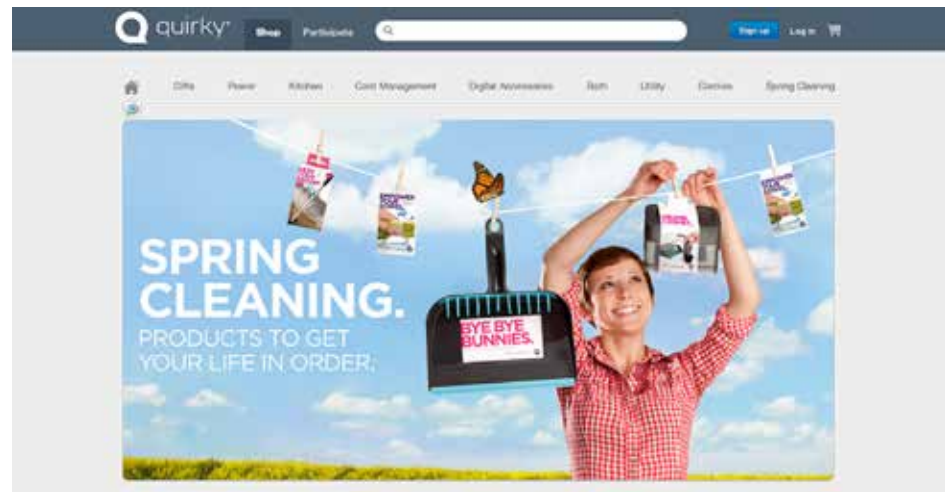
The advantage of online marketing is that a fairly minimal budget buys companies the opportunity to run small marketing experiments in a variety of countries where they are targeting export growth. Google’s Adwords, for example, includes both language and geographic targeting support so that Spanish language ads only appear on Spanish language searches and websites, while ad campaigns designed for South American consumers won’t also appear on websites visited by European Spaniards. Business owners can monitor impressions and click-through rates to get instantaneous feedback on whether their campaigns are reaching the right audiences and translating well into foreign languages. Savvy marketers can also use the power of social media to engage with customers directly, co-creating their next marketing campaign or getting input on product and service innovation.

### Harnessing Freelance Talent Marketplaces

The possibility to reinvent or augment traditional business models using digital platforms and technologies represents an important frontier for service innovations and a necessary component of doing business globally. At the same time, micro-multinationals are pioneering new and arguably more productive ways to assemble and manage the talent required to create and deliver services on a global basis. Take Quirky.com, a New York-based product design firm that relies largely on the services of over 600,000 independent product designers to go from idea generation to engineering to market-ready products such as bicycles, protective cases for iPads and yogurt makers in a matter of weeks. In Quirky’s unique approach to product development, ideas for new products are sourced from the community of contributors who actually pay for the privilege of pitching them. An in-house team of designers, technologists and financiers vets the ideas and is engaged throughout the research and design phase, and when a product is brought to market, those who contributed to its development and sales are rewarded with a share of revenue. The company receives about 2,000 product invention ideas every week, singles out three or four for further development and has so far managed to produce over 400 products for big box retailers such as Target, Bed Bath & Beyond and Best Buy. Quirky has even made some of its freelancers rich. The inventor of Pivot Power, a flexible power strip and one of Quirky’s most popular products, will earn US\$1 million in royalties in 2013 alone and then every year thereafter, because the product is branching out into an entire line.



## Scaling Services: Micro-Multinationals and Emerging Platforms for Growth

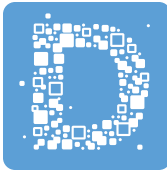


Quirky harnesses 600,000 independent product designers to go from idea generation to engineering to market-ready products in a matter of weeks.

Quirky is hardly an anomaly. Driven by technology and the rise in freelancing, more and more economic tasks are being executed by temporary teams that come together for a fixed period of time to produce a single outcome, and then go their separate ways, in much the same way that Hollywood produces films. For both the consumers and producers of knowledge-based services, it is becoming increasingly attractive to assemble highly specialized teams of professionals for specific tasks rather than hiring full-time staff year-round. Many of the world's most talented product designers, consultants and researchers prefer the freedom, flexibility and independence that freelancing affords them. And with the proliferation of social innovation hubs, hacklabs and do-tanks in urban centres, entrepreneurial freelancers and entrepreneurs alike have access to all of the technology and collaboration space they need without having to commit valuable resources to maintaining a traditional office space.

This kind of entrepreneurial freelancing looks set to increase, especially in the knowledge-intensive service sectors, where a growing number of professional services marketplaces have emerged to help facilitate access to an increasingly global talent pool. On InnoCentive, for example, some 300,000 independent problem solvers are tackling science-based challenges and R&D problems for innovation-hungry companies and governments around the world. Organizations in need of solutions simply post their challenges and community of "solvers" competes to find a solution. Successful solvers claim cash rewards ranging from US\$5,000 up to \$1 million, depending on the problem. More than 40 percent of InnoCentive registered solvers come from Brazil, Russia, India and China; 30 percent are from the United States; and the remainder are from over 150 other countries. Many have jobs in university labs, where seemingly obscure research pursuits could have applications that they had not yet thought of monetized. In fact, InnoCentive has been taking steps to ignite more entrepreneurial activity

*“Driven by technology and the rise in freelancing, more and more economic tasks are being executed by temporary teams that come together for a fixed period of time to produce a single outcome, and then go their separate ways, in much the same way that Hollywood produces films.”*

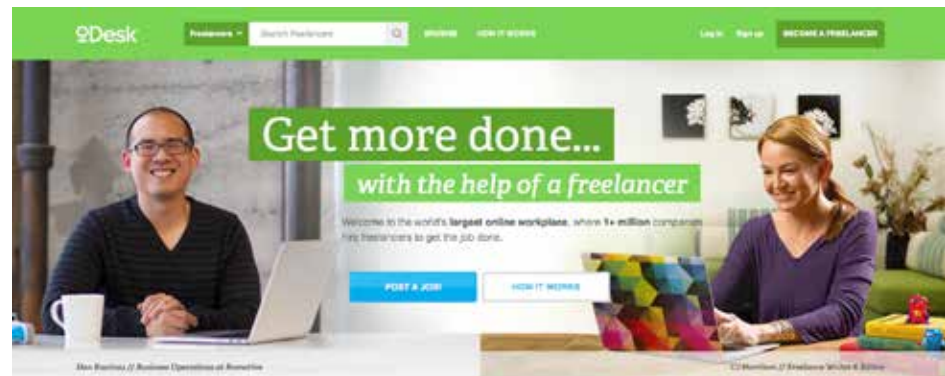


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among seekers and solvers by expanding the tools available to users to manage rights, communicate with other registered users, and self-organize into ad hoc freelance organizations.

Other talent marketplaces specialize in providing the kinds of services that make businesses leaner and more efficient. Marketplaces like Elance, oDesk, PeoplePerHour and Guru.com, for example, provide flexible, on-demand access to talented people and business capabilities for much less than it would cost hire or build internally. The talent-as-a-service model is attractive to both employers, who can access valuable skills on-demand and to freelancers, who can build their reputations as reliable service providers and earn money from the comfort of home. Xenios Thrasyvoulou, the founder and CEO of PeoplePerHour, a UK-based company, points out that the vast majority of his 70,000 clients are small companies that do not want to hire a full-time accountant or human resources professional, but need to occasionally use these services.<sup>41</sup> Many business owners cite the vital role that such marketplaces play in enabling them to acquire the talent required to scale their service offerings internationally, and the ease and convenience of doing so. Business owners can browse detailed work samples and customer ratings for thousands of vendors in service categories ranging from accounting to web design. Elance provides built-in software to track works in progress and to handle billing, payment and tax records, while Guru.com allows buyers to put funds in escrow until work is received. ODesk has even negotiated benefits packages for contractors using its site.<sup>42</sup>



**oDesk has 4.5 million registered freelancers who have worked a total of 35 million hours for the 900,000 clients who have posted 1.5 million jobs.**

Of all the freelance marketplaces, oDesk's is truly the most remarkable. Since its inception in 2005, it has delivered more than US\$1 billion in revenue from employers to freelancers. According to the last statistics provided by oDesk itself, the company has 4.5 million registered freelancers who have worked a total of 35 million hours for the 900,000 clients who have posted 1.5 million jobs. And despite the fact that the United States is the largest importer of freelance services on oDesk, it is also the second largest supplier of freelancers after India.



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Canada, meanwhile, ranks as the third largest importer of freelanced services via oDesk, and the 9th largest provider.

These growing ranks of successful freelancers suggest that marketplaces such as oDesk could provide a rewarding way for experienced individuals to supply professional services to a growing number of emerging market companies seeking specialized skills. In interviews with a significant set of large and high-growth firms, the DEEP Centre has come to believe that high-end managerial skills and executive functions are in short supply, while demand for these skills continues to grow. Geographical distances and language barriers have long limited the pool of potential candidates for such international opportunities, but freelance marketplaces and other platforms for collaboration have opened up significant new opportunities for those who want to remain at home while taking on international work opportunities.

#### The Micro-Multinational Advantage in Services

For more than a century, large corporations with sizable workforces have been the dominant players in most sectors of the economy. Micro-multinationals, by contrast, are the harbingers of an economic system constituted by a myriad of actors that are highly dependent on rapid, continuous and deep-seated technological advancement and a workforce that essentially takes employment matters into their own hands. In summarizing the trends described above, the micro-multinational approach to doing business offers four significant advantages for mature-economy services firms.

- **Micro-multinationals are more productive and have lower costs.** In the past, entrepreneurs had to build most of their business infrastructure from scratch, adding tremendously to their costs and workload. Today, micro-multinationals have the same capabilities as large multinationals because they can purchase the necessary back office services at minimal cost online. Productivity and lower costs help keep mature-economy service providers competitive with emerging market firms that are vying for the same growth opportunities.
- **Micro-multinationals are focused on their core competencies.** While outsourcing has become a bad word in some policy circles, small companies, by definition, need to focus on their core competencies rather than running back office services. The more that export-oriented service providers can offload their non-core functions to reliable and cost-effective suppliers, the more they can focus their energies on the key factors that will drive international business success.



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- **Micro-multinationals are scalable.** Facing limitations in financing and infrastructure, SMEs typically focus on serving geographically defined niche markets. In doing so, they limit their growth prospects. Micro-multinationals, by contrast, use online platforms for marketing and collaboration to access international markets with a minimum of bureaucracy, financing and overhead. These internationalizing firms are better positioned to capitalize on the growth of middle-class consumers in emerging markets and are therefore much more likely to have a more substantial impact on economic growth and job creation.
- **Micro-multinationals are flexible and agile.** Elance’s 2012 “State of the Freelance Market” survey cites, among the top five reasons to decide to freelance, the desire to have more flexibility, more creative control over projects, to be able to work from home, to make more money and to grow a business.<sup>43</sup> This desire for entrepreneurial freedom is creating a vast pool of skilled talent that makes small companies more flexible and agile when it comes to piecing together the teams they need to execute projects for emerging markets.

Ultimately, micro-multinationals should serve as an inspiration for the SMEs in Canada and the United States that were previously unable or unwilling to go international. While service exporters will still face significant barriers and challenges, the next section explains how a series of properly targeted policy initiatives can help catalyze a wave of micro-multinationals as the next major job creators in the service economies of mature industrial states.

*“SME service exporters generated 1.4 to 8.1 times more revenue per firm than non-exporting SMEs.”*



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From existing research, we know that large firms are responsible for over 80 percent of service exports. SMEs, on the other hand, represent a small, though not insignificant, share of services-export totals. In the US, it is estimated that only 3.7 percent of SMEs in services sector export, compared to 9.7 percent of large services companies. Those SMEs that do export their services, however, enjoy significant benefits.<sup>44</sup>

The U.S. International Trade Commission, for example, finds that SME service exporters generated 1.4 to 8.1 times more revenue per firm than non-exporting US SMEs. Moreover, between 2002 and 2007, SME service exporters grew 15 to 64 percent faster than US service firms that did not export. The impact of these services-exporting SMEs on US employment is significant. In particular, employment growth amongst service-exporting SMEs was 12 percent over the 2002–2007 period, compared to –1 percent for exporting large firms. Growing this demographic of service-exporters thus portends significant impacts on US domestic employment, a finding that can be easily extrapolated to similar jurisdictions such as Canada.

### Barriers to Exporting Services

The benefits of internationalization help to build a strong business case for greater public and private investment in supporting the expansion of SME service exports. However, if the business case for exporting is so strong, why don't more SMEs export their service offerings? A series of perceived (and real) barriers are key to understanding why such a small percentage of SMEs export services.<sup>45</sup> In particular, SME service exporters frequently cite "language or cultural barriers" as the key obstacle to increasing exports. In addition to a generalized lack of capacity and managerial experience, SMEs also cite issues related to foreign taxation, residency requirements, and legal and intellectual property rules as major impediments to exporting. In some sectors, jurisdiction-specific licensing, residency and commercial presence requirements are also noted as significant challenges.<sup>46</sup>

Interestingly, in survey results collected in the US, service-exporting SMEs rank private firm and/or government assistance as lowest among eight variables for attracting foreign clients. In comparison, exporting manufacturing firms rank the assistance of private intermediaries fourth of the eight variables. The primary method for attracting foreign clients among service-exporting SMEs is normally foreign-client-initiated contact, which suggests a significant opportunity for export-assistance programs to facilitate the internationalization of service providers.

In the sections below, we consider a variety of policy reform and capacity-building measures that can help service sector firms capitalize on the opportunity to export their services internationally.



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### Building SME Capacity

The idea that public policy can and should facilitate private sector capacity building and export development support is hardly novel. Over the years, publicly funded export development programs have boosted manufacturing exports with considerable success, and it seems reasonable to hypothesize that some combination of public and private intermediaries offering support services could materially increase the likelihood of SMEs exporting their services successfully. But what specific support services should intermediary organizations offer in order to facilitate increased service-related exports? Should these business services be bundled and syndicated for sector-specific SME groupings? And which actors should take the lead in funding, bundling and delivering these services?

A scan of policies to support the development of high-growth firms in comparable jurisdictions around the world suggests a number of priorities for capacity building. In addition, two recent export assistance programs launched in Canada provide novel examples of intermediary organizations that could operationalize the export-support required to underpin the emergence of a dynamic service-exporting sectors.

**Foster entrepreneurial attitudes.** Roughly 95 percent of the small businesses that stay afloat also stay small. The implication is that a significant cohort of service businesses are satisfied serving a local niche market and harbour neither the desire nor aptitude to grow their operations into large-scale companies that compete internationally. Recent research confirms that entrepreneurial attitudes are necessary in order to stimulate more growth ambitions in new and existing businesses. Research by Vivek Wadhwa for the Kauffman Foundation, for example, finds that the propensity to grow is strongly linked to the motivations, experiences and background of company founders, with entrepreneurs in high-growth firms and industries most likely to come from middle-class or upper-lower-class backgrounds.<sup>48</sup> These entrepreneurs are typically well-educated and are motivated to become their own bosses in a new venture, having already attained significant work experience and with a clear business idea that they want to commercialize.<sup>49</sup> However, the research also suggests that the entrepreneurial ambitions of the founder were often cultivated earlier in life, often in college or even earlier.

An associated policy recommendation is that policy makers, business leaders and educators could do more to encourage entrepreneurial attitudes in the public at large, starting with primary-level education and continuing through to post-secondary institutions. Survey research suggests that, to some extent, post-secondary institutions in Canada and the United States are already doing. A 2010 Gallup poll found that 51 percent of Americans agreed that their education made them interested in becoming entrepreneurs, compared with 25

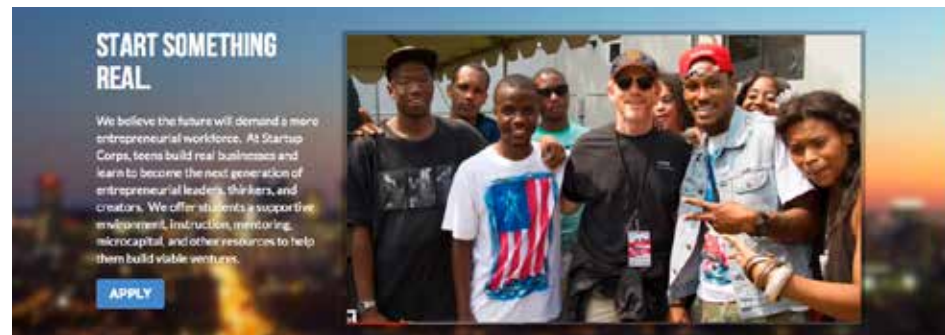
*“Many countries, including both Canada and the United States, have failed to allocate adequate resources for monitoring and assessing the drivers of growth and innovation in the service sector, or for evaluating the current and future impact of the service sector on employment.”*





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percent of European respondents and 57 percent of Chinese respondents.<sup>50</sup> In Canada, a 2013 poll by the Bank of Montreal found that nearly 50 percent of those polled saw themselves starting a business post-graduation.<sup>51</sup> These impressive entrepreneurial segments notwithstanding, the data suggests that there is room for improvement.



Pennsylvania-based StartupCorps has a 95% success rate in helping students bring products to market.

The Kauffman Foundation reports that over 400,000 post-secondary students take courses in entrepreneurship in colleges and universities across the United States every year. This number not only needs to increase, but the focus of such efforts must also be introduced to students earlier in their education. Two examples bear mentioning. The Network for Teaching Entrepreneurship (NFTE) was founded in 1987 and, with the help of funding provided by corporations and foundations, focuses on teaching entrepreneurship as a means of employment and personal development in low-income communities. Research conducted on the NFTE finds that its graduates are twice as likely to become entrepreneurs as compared to the US average (22 percent versus 11 percent), with incomes significantly exceeding US averages. Another great example is Pennsylvania-based StartupCorps. Founded in 2006, the program provides in-school and after-school entrepreneurship curriculum and mentoring aimed at getting high-school students to build ideas into successful business ventures. In the 2012–2013 school year, the program hosted 83 students, 95 percent of whom brought a product to market; of these, 86 percent made money from their ventures. While not all of these students will succeed as entrepreneurs, the evidence in these examples suggests that the expansion of high-school entrepreneurship programs could make a tangible, long-term impact on rates of entrepreneurship, long-term skill development and ultimately the employability and employment of millions.

*“the expansion of high-school entrepreneurship programs could make a tangible, long-term impact on rates of entrepreneurship, long-term skill development and ultimately the employability and employment of millions.”*



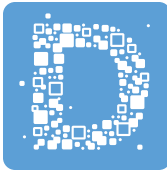
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**Build management competencies for high growth.** Making the leap from a small, low-growth business to a mid-sized, high-growth firm is an incredibly rare accomplishment. Even a firm with good ideas can fail because its management is incapable of coping with the growth of the firm and the pressures it creates for human, technical and financial resources. The wealth of research on high-growth firms shows that the successful ones are linked to high levels of management acumen. Successful managers tend to develop a sharper strategic stance in several areas, especially marketing, innovation, internationalization and financing.<sup>52</sup> Baldwin and Gellatly, for example, find that exceptional rates of R&D investment and innovation are tightly correlated with above-average management competencies.<sup>53</sup> Their data shows that firms making investments in managerial assets through training and exposure to research, technology and international markets have increased rates of survival and success. As the authors note, “new knowledge—whether embodied in new product designs, superior production methods or organizational forms—is borne out of purposive action.”<sup>54</sup> Roger Martin and James Milway at the University of Toronto reach a similar conclusion, finding that while successful high technology firms are typically founded by science and engineering graduates, their technological skills become less important as the firms mature and require managerial competencies to facilitate ongoing growth and expansion.<sup>55</sup>

Facilitating the development of enhanced management skills among SMEs is thus central to increasing the sector’s role in job creation and economic growth. Ongoing efforts to facilitate the development of management skills at colleges and business schools are part of the answer; so too are innovative management mentorship programs and tax breaks, or incentives for investments in training. While the US Department of Labor provides a series of training incentives programs for sector-specific skills development and retraining, none are focused on either the development or refinement of the management skills necessary to enable serious international growth. Moreover, across jurisdictions, training incentives and resources are most often geared to skilling-up individuals for new jobs, rather than facilitating the ongoing development of individuals who are already in the workforce—especially those running small businesses with the potential for growth. While the predisposition to train unemployed workers is both understandable and necessary, programs that focus all of their training incentives and efforts on the unemployed segment miss a significant opportunity to amplify the impact of proven job creators. Equipping small business owners with the skills and resources required to expand internationally not only contributes to the company’s growth and success, it virtually guarantees that the company will generate new jobs as it acquires the human resources needed to scale.

*“Programs that focus all of their training incentives and efforts on the unemployed segment miss a significant opportunity to amplify the impact of proven job creators.”*



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According to the research, it matters little whether management development programs evolve from public or private institutions. In Austria, for example, car parts manufacturing giant Magna Steyr has developed a series of training modules for its supplier network in order to improve supplier quality and efficiency. Clearly, suppliers that would like to access to the Magna Steyr's supply chain have a strong incentive to participate in the company's training programs. In Belgium, a publicly funded program helps owners and managers of SMEs tackle growth-related challenges through the creation of mentorship networks that include 15–20 SME owners/ managers and two moderators from large multinational firms. An evaluation of early results of the program showed a 15–20 percent increase in annual revenues, and a 20 percent increase in employees, with results for both being attributed fully to the program by half of its participants.<sup>56</sup> This latter example, in particular, could be readily replicated by business accelerators catering to service firms.



**The Startup Genome Project is collecting, curating and analyzing data about entrepreneurial ecosystems around the world.**

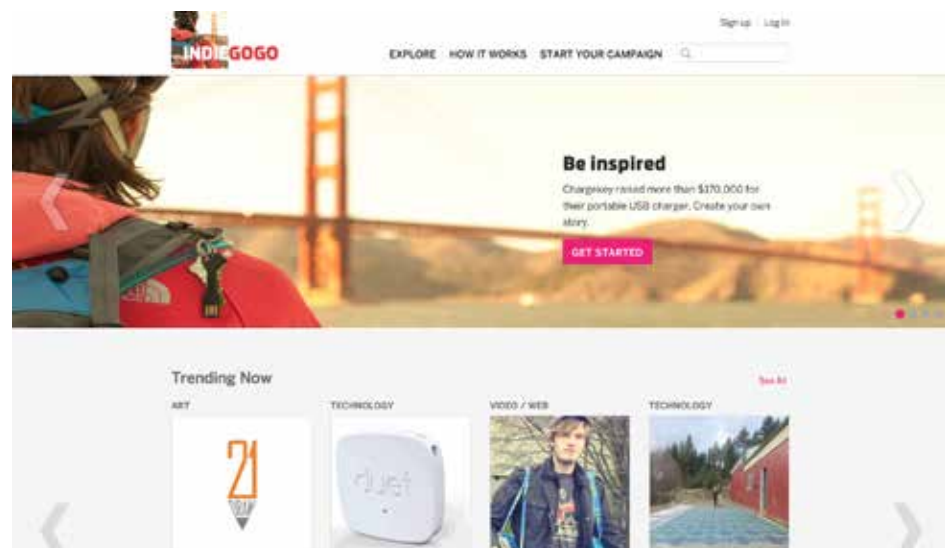
The wealth of new services, knowledge portals, blogs and business networks aimed at developing entrepreneurial management competencies provide another promising resource for SMEs seeking management support. To provide just one example, the Startup Genome Project is a free and open platform for collecting, curating and analyzing data about the start-ups, entrepreneurs, investors and community enablers around the world.<sup>57</sup> Founded in 2011 and supported by UC Berkeley and Stanford, the project has amassed a wealth of management advice and analyzed data from over 650 companies to understand why start-ups succeed or fail. In one of its first reports, the project maps out the discrete stages of start-up development and growth, identifying key management competencies and success factors for each stage. With the abundance of management



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resources now available online, efforts to arrive at data-driven conclusions by networks such as the Startup Genome Project could prove especially valuable.

**Improve access to financing for service firms with high-growth potential.** SMEs typically identify insufficient access to sources of capital as the primary impediment to technological, managerial and R&D investment. This makes sense: innovation, growth and internationalization are hard to do without access to the necessary capital to invest in these endeavours. OECD research shows that traditional financial institutions often shy away from lending to young firms, which are perceived as more risk-oriented because of the higher potential for default.<sup>58</sup> To make matters worse, innovation-intensive firms are declined twice as often as the average SME, again because their innovative business ideas are perceived as more risky than market-tested, well-trodden ones. The lack of access to debt financing means that innovative SMEs are more likely to turn to equity financing to support their growth. This makes sense for some firms, but with venture and angel financiers focusing their resources on high-tech fields, this leaves many categories of service firms out of the picture.



Crowdfunding sites like Indiegogo provide an alternative to traditional equity and debt financing.

Public initiatives to support SME growth and especially innovation are more often focused on improving SME investment readiness (to access equity financing). But in light of the OECD findings, it would be equally important to encourage credit readiness in order to boost access to debt financing. Federal and state-level governments can help improve SME access to capital through a series of targeted initiatives that provide conditional loans and matching grants to facilitate private SME investment in technology, training, export readiness and R&D. Given the strong link between these investments and high-growth



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performance, facilitating increased SME adoption of such practices is integral to the development of more high-growth firms.

Finally, crowdfunding sites like Indiegogo and Fundable provide alternative vehicles to enable SMEs to raise financing. On Indiegogo, for example, entrepreneurs can offer rewards (often the first release of their product) in exchange for donations from individuals willing fund their venture. With the passage of the JOBS Act in April 2012, U.S. entrepreneurs looking for investors and willing to give away equity in their company can now utilize equity crowdfunding through sites like Fundable to grow and scale their company. In addition to financing, crowdfunding provides an effective means for SMEs and startups to receive feedback from potential customers before manufacturing; facilitates the recruiting of employees, distribution partners and product evangelists; mobilizes communities of interest around causes; and serves as a mechanism to signal the quality of an idea, product or cause to a widely distributed network.

**Promote innovation and technology adoption among SMEs.** For the service sector to generate significant growth and job creators, it must become more productive, efficient and innovative. Productivity gains, new innovations, increased international competitiveness and new channels to export services globally can all be achieved with access to the best technologies. Yet, for various reasons, SMEs are often slow to adopt the latest technologies, and their growth and productivity potential suffers accordingly. One reason SMEs underinvest in technology is that they are at a relative disadvantage when it comes to accessing the capital and other resources that would permit them to do so. SMEs also tend to be more risk averse than the more profitable, larger firms that can easily afford to experiment with the latest technologies.

Policy makers and intermediaries should encourage technology adoption through a collaborative industry-government approach to financing and information sharing that builds the case for technological investment. For example, the National Research Council Canada's Digital Technology Adoption Pilot Program, a three-year, \$80 million pilot program designed to spur adoption of digital technologies by SMEs, provides an interesting case study. The program's three main objectives are to: better understand the linkages between digital technology adoption and productivity; raise awareness of the benefits among Canadian SMEs and facilitate the sharing of best practices; and provide a bundle of advisory services and funding to assist SMEs in making technology investments. A recent evaluation of the pilot phase found that 400 the 600 firms engaged in the program had already adopted digital technologies, while the remainder planned to in the near future. For the early adopters, the anticipated benefits included lower production costs, increased productivity, improved management systems, and improved quality of products or services.<sup>59</sup>

*“Technology adoption programs that fail to reach a significant cross section of service businesses will ultimately fail to unleash the full potential of technology to support their international expansion.”*



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Finally, when it comes to enhancing the productivity and international reach of the service sector, it is worth emphasizing that technology adoption is not a niche issue pertaining mostly to high-tech start-ups. Firms in all aspects of the services sector increasingly depend on access to world-class digital infrastructure to be successful and competitive, including the many companies that do not have information technology at the core of their business model. Technology adoption programs that fail to reach a significant cross section of service businesses will ultimately fail to unleash the full potential of technology to support their international expansion.

**Develop a clearinghouse for service sector knowledge and data.** Many countries, including both Canada and the United States, have failed to allocate adequate resources for monitoring and assessing the drivers of growth and innovation in the service sector, or for evaluating the current and future impact of the service sector on employment. In an expanding global service economy, such data is gold. The US-based National Bureau of Asian Research has called for four areas of improvement that could have a major impact on improving service sector statistics: a more nuanced classification system with finer granularity of data on activities; improved survey detail in the tracking of service sector activity; improved accounting for the transfer of intangible assets; and the development of more accurate service price indexes and input/output matrixes.

Without this data, the analytical segmentation within this crucial sector is insufficient to give us more nuanced information about its performance or to document its supporting function to key economic actors. Policy and budget decisions are, by definition, based on data, and the lack of proper statistics means policy makers have neither the intellectual ammunition for justifying changes nor the information they need to make sound decisions. While policy makers exert little control over what foreign governments choose to collect or disclose, organizations such as the OECD could play a useful role in advocating for the international adoption of more robust and standardized statistics for services. At the same time, industry associations and intermediaries should endeavour to collect granular data on overseas market opportunities to help service firms build international expans

**Facilitate internationalization through export support, “soft landing” programs and training.** In addition to developing the management competencies required for high growth, there are many specific challenges facing service exporters as noted above. Export-oriented service providers would benefit from a variety of targeted services and training programs. Such export readiness programs could provide a suite of services ranging from legal and regulatory counsel to export financing, market intelligence and training programs aimed at building managerial know-how. These services could be bundled and customized to address the needs of a variety of sector-specific SME groupings such as engineering,



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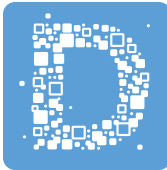
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architecture, finance, legal, health, IT, digital media and accounting. As described below, export assistance programs should also include short-term immersion programs that could help familiarize business owners with the language, politics and culture of the countries they would like to export to.

### Bundling Export Support Services in Business Accelerators

Targeted programs, intermediaries and platforms could address the capacity building priorities listed above and lessen both the risks and transaction costs associated with international expansion. While state and local economic development agencies are not fully addressing the menu of potential support services envisioned above, models do exist for the development of public and private intermediary organizations that could do so, such as business incubators and accelerators, which have garnered increasing attention from entrepreneurs and policy makers alike. Data compiled by Seed-DB, an online resource focused on accelerator performance, highlights that as of May 2014, 213 accelerator programs were in operation across the globe. The focus of such intermediary organizations, however, has largely been limited to traditional information technology fields such as new digital media start-ups.

Nevertheless, there is an opportunity to apply the principles of successful business accelerators to the challenges of facilitating access to new markets and creating managerial competence through mentorship and guidance in the tradable services sector. Given that only 3.7 percent of SME service firms export internationally, a small increase in the share of exporting service firms could yield significant employment gains and economic growth. Two Canadian case studies, in particular, offer pertinent insights into how traditional business accelerators and intermediary organizations could adapt their offerings for the services sector: the Soft Landing Program and the Digital Media Zone's Entrepreneurial Exchange.



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The Canadian Digital Media Network's Soft Landing Program has enabled 47 companies to enter 17 foreign markets and identify more than \$30 million in new business and investment opportunities.

**The Soft Landing Program (SLP)**, administered by the Waterloo, Ontario-based Canadian Digital Media Network (CDMN), is a leading example of a public-private intermediary focused on boosting the capacity for export growth. Part export development agency and part business accelerator, the SLP facilitates export growth by offering high-potential SMEs short-term overseas market immersion programs. Premised on an understanding that “Canadian companies must grow global in order to succeed in a digital economy,” the SLP leverages its network of international business incubator centres to place Canadian SMEs in the digital media space abroad for up to three months. Backed by funding from the Canadian federal government, the SLP provides successful applicants with up to CDN\$4,000 to offset travel and administrative expenses associated with the exploration of a potential new export market. In addition to this direct support, the SLP covers the cost of desk space and related services at the host incubators abroad. Since the inception of the program in 2012, and through the first quarter of 2014, CDMN will have sent 90 SMEs abroad, to nations as far afield as Brazil, Germany, India, Saudi Arabia and the United Arab Emirates. According to Kevin Tuer, Managing Director of the CDMN, “To date, 47 companies have had the opportunity to enter 17 foreign markets and identify more than \$30 million in new business and investment opportunities—representing a return on investment of greater than 30 to 1.”





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It is important to note that the SLP is not geared toward start-ups, but targets mature SMEs that self-identify as wanting to expand abroad. Applicants go through a rigorous selection process that ensures that only qualified companies with real growth opportunities on the basis of potential market and a proven product are chosen.

**The Digital Media Zone’s Entrepreneur Exchange.** Similarly, the Digital Media Zone (DMZ) at Ryerson University in Toronto, Ontario has partnered with the Bombay Stock Exchange (BSE) in Mumbai, India on an initiative that seeks to facilitate firm expansion in both host markets. Selected Canadian entrepreneurs are hosted at the BSE in order to facilitate their access to the Indian consumer market, as well as to Indian investors. As Sheldon Levy, president of Ryerson University, notes “If a company can make it in India, the experience will function as a trial run for expansion into Asia.” On the flip side, Ryerson’s “Next Big Idea” competition provides an expansion platform for innovative Indian companies seeking a foothold in North America. Competition winners from India are hosted at the Ryerson DMZ, allowing them to cultivate networks and build market intelligence. At both ends of this Indo-Canadian relationship, entrepreneurs are provided with funding to allow for short-term residency, as well as necessary local mentorship and guidance.



Ryerson’s Digital Media Zone helps its startups access to the Indian market.

**Intermediary services for service sector SMEs.** Applying these examples to the services sector is not necessary straightforward. Unique, jurisdictionally specific industry regulation will undoubtedly increase the transaction costs associated with service exports for SMEs. Moreover, deciphering the competitive advantage of services firms in overseas markets through a selection process may be more difficult than those of a unique product offering.

Both of these dampening factors, however, can be overcome through properly designed intermediary services. First, through the development of host-market partnerships through a soft-landing approach, outbound SMEs can rely on host-market experts to navigate the maze of foreign regulation that would tradi-



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tionally serve to extinguish export hopes before they start. Second, a soft-landing style program for the services sector, designed to focus either on specific markets or specific sectors, would provide an important source of knowledge for would-be exporters, notably host-market intelligence, in a fashion conducive for potentially risk-averse managers. Moreover, if created in partnership with organizations in host-markets, such partnerships can serve to inform the selection process of outbound firms to ensure perceived success potential is grounded in host-market reality.

Ultimately, the intermediary models seen across other professional sectors, notably in information and communications technology, offer significant insights toward the expansion of service-sector exports. While the total number of exporting firms may still be small relative to the same measure among manufacturing firms, the ability to double or triple the export share of service-sector SMEs portends a significant impact on domestic employment.

### Conclusion and Next Steps

This research brief was designed to spur a discussion about the potential to unleash job creation and economic growth by increasing the internationalization and competitiveness of service-sector SMEs. The research highlights how the confluence of demographic, technological and economic change around the world provides a novel opportunity for services-related export growth, and by extension, significant domestic job creation. In support of a broad strategy for increasing the internationalization and competitiveness of service-sector SMEs, the report describes how technology-enabled innovation is reshaping a variety of key service sectors, ranging from health care to professional services. The report builds a case for SMEs harnessing the transformations to increase their exports to the global economy, and introduces the concept of the micro-multi-national, explaining how these tech-savvy, global operators provide a model for export-oriented service firms to drive a significant expansion of the economy.

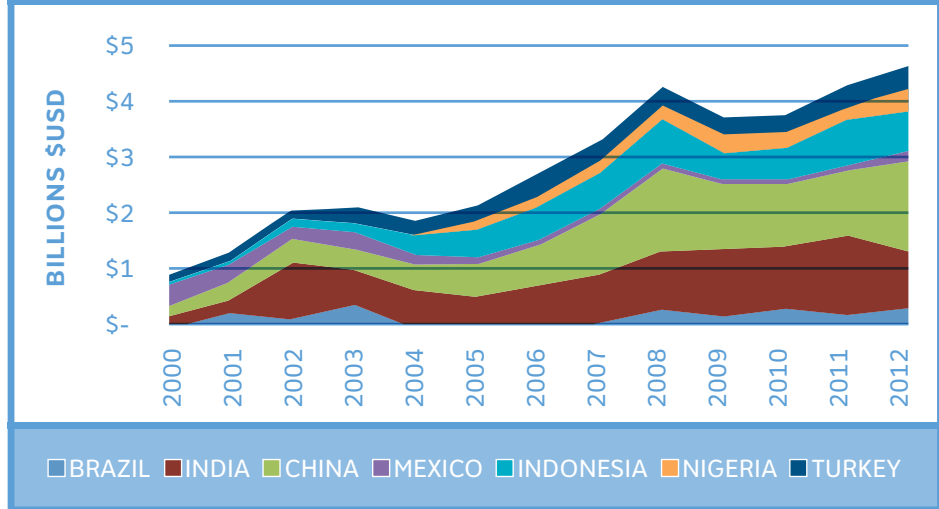
The report also confirms that SMEs will face considerable challenges in exporting their services abroad, including a lack of managerial bandwidth and experience, regulatory and trade barriers, and a general pattern of inadequate investment in productivity-enhancing technologies. As the recommendations herein suggest, however, these challenges are not insurmountable if policy-makers act decisively on implementing novel export-assistance strategies, methods and platforms to enable SMEs to gain a sustainable competitive edge. The task now is to seize the momentum fostered by evolving technological opportunity to underpin the emergence of a dynamic, globally oriented services sector—one of the surest ways to increase domestic job creation and growth in the decades ahead.

*“The confluence of demographic, technological and economic change around the world provides a novel opportunity for services-related export growth, and by extension, significant domestic job creation.”*



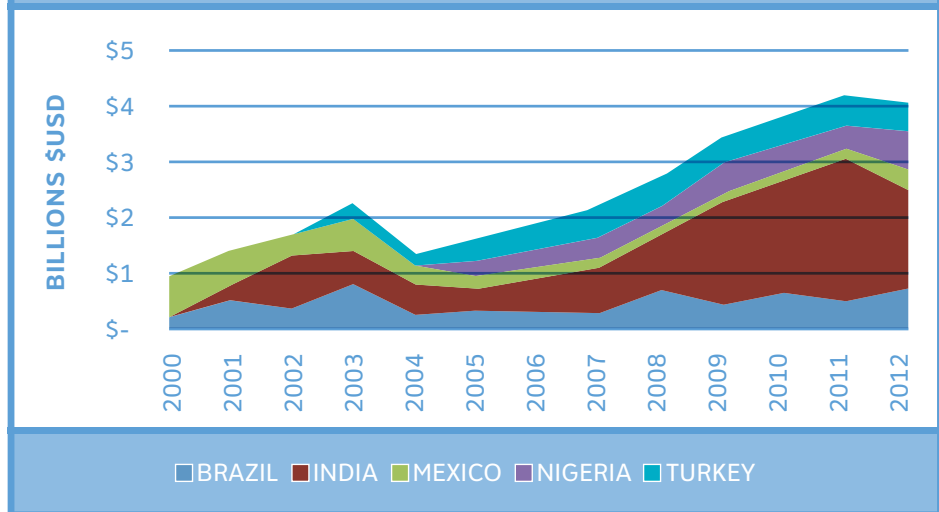
## Appendix 1: Growth of the Global Services Economy

FIGURE 3: COMMUNICATIONS SERVICES IMPORTS



Source: World Trade Organization (2012), *Trade in Commercial Services*

FIGURE 4: TELECOMMUNICATIONS SERVICES IMPORTS

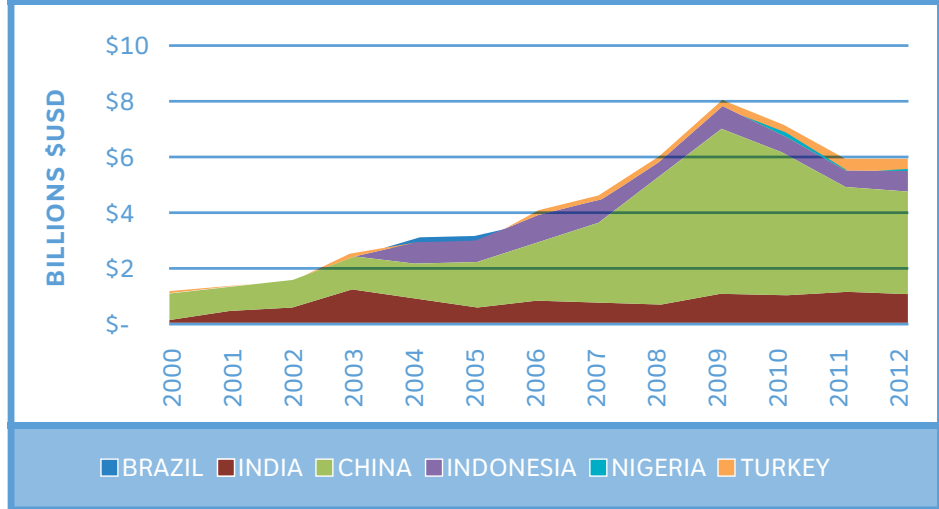


Source: World Trade Organization (2012), *Trade in Commercial Services*



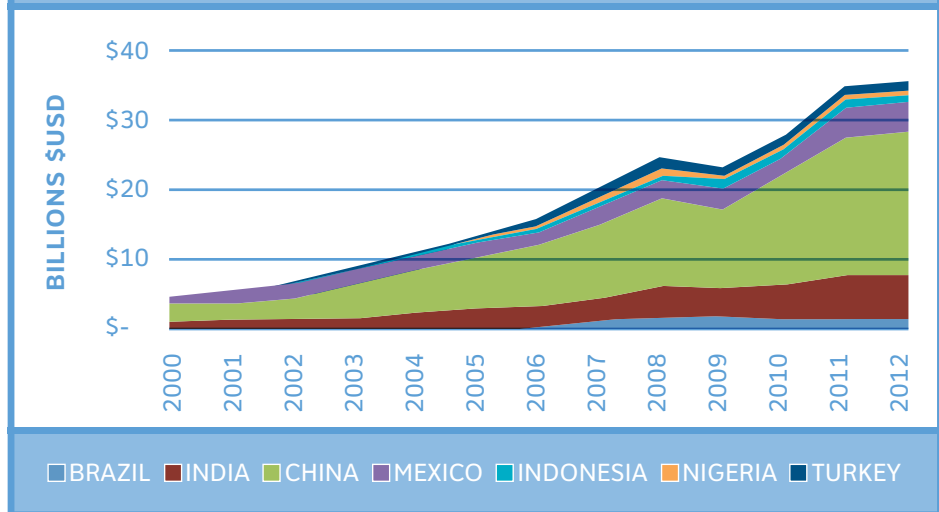
## Appendix 1: Growth of the Global Services Economy

FIGURE 5: CONSTRUCTION SERVICES IMPORTS



Source: World Trade Organization (2012), *Trade in Commercial Services*

FIGURE 6: INSURANCE SERVICES IMPORTS

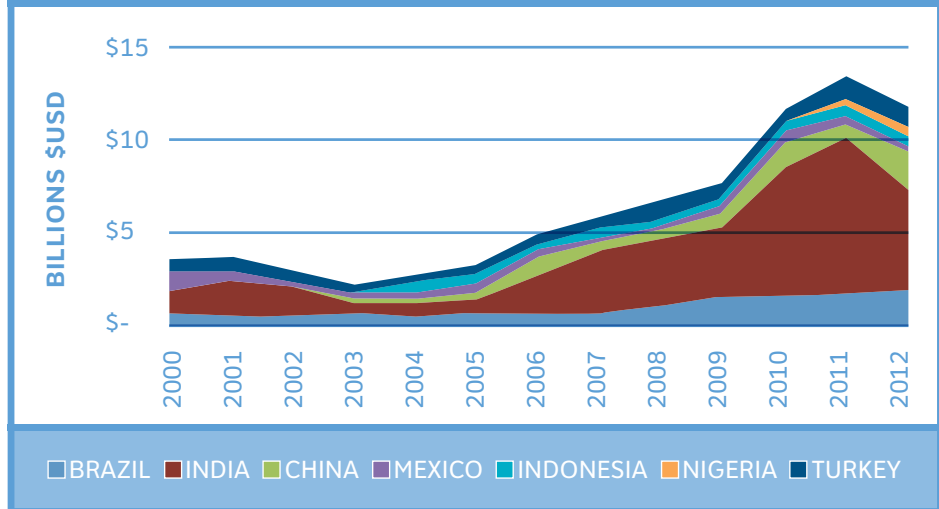


Source: World Trade Organization (2012), *Trade in Commercial Services*



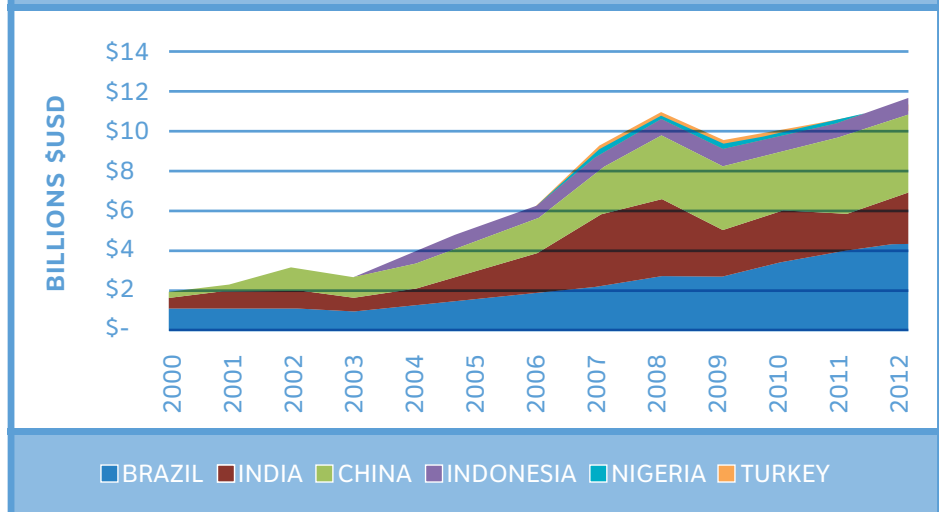
## Appendix 1: Growth of the Global Services Economy

FIGURE 7: FINANCIAL SERVICES IMPORTS



Source: World Trade Organization (2012), *Trade in Commercial Services*

FIGURE 8: COMPUTER & INFORMATION SERVICES IMPORTS



Source: World Trade Organization (2012), *Trade in Commercial Services*



## Endnotes

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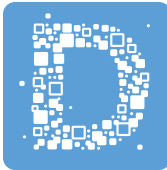
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