

Globalisation – Does it lead to international competitiveness?

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Abstract: Globalisation may not lead to international competitiveness without consideration of the key reason for participation in the global economy and adoption of an approach that provides consistency. How can consumers determine the suitability of what is offered to them and be certain they're getting what they paid for? And how can suppliers be sure their offering is appropriate for their potential offshore markets? From BICSI's perspective, the answer is "standards".

Introduction

Global, Local, International, 'Glocal' – these terms are collectively finding their way into the vocabulary of businesses around the world more and more frequently today, from the largest of public companies, right down to 'mum and dad' eBay shopfronts, and everything else in between. Gone are the days of only the iconic large companies doing business internationally and the small to medium enterprises (SMEs) being relegated to local markets. Thanks to the Internet and digital technologies, everyone can be an international business and compete in offshore markets. Information technology (IT), it would seem, has removed conventional business stratification forever.

While IT has been an amazing business enabler – dare I say, even a great 'equaliser' – it has recently 'muddied the water' for the procurement of goods and services that are 'fit for purpose'.

Let me explain what I mean by 'muddied the water'. With the plethora of businesses of all different scales and capabilities conducting business in the global landscape, the benchmarks for quality and suitability of applications in the purchaser's country are often quite different from the corresponding benchmarks in the supplier's country. How do consumers – particularly in business-to-business transactions – determine the suitability of what is offered to them? How can they be certain they are getting what they paid for and at a fair price? And from a supplier's perspective, how can they be sure their offering is appropriate for their potential offshore markets?

While globalisation has led to greater opportunity for suppliers and greater competition for consumers to draw from, it brings with it some serious concerns.

This is an issue that reaches to the core of the existence of BICSI (Building Industry Consulting Service International) – a global information and communications technology (ICT) industry association that actively promotes best practice through standards, credentialing and education that can be deployed anywhere in the world.

International competitiveness is an essential ingredient for any sustainable market, including the ICT infrastructure market that BICSI represents – so long as it's conducted from a long-term, ethical perspective, not a purely opportunistic approach.

The good, bad and ugly of globalisation

The greatest impact of globalisation is arguably access to information. Never before in human history has information been so abundantly and swiftly available to anyone, anywhere.

The fact that news of the recent earthquake in Nepal reached millions of people around the world on social media, well before news agencies could compile details of the disaster for broadcast highlights the pervasiveness of this global connectivity.

However, not all online news is dependably accurate. Case in point were the recent erroneous tweets from a BBC reporter, Ahmen Khawaja, firstly posting on Twitter that Britain's Queen Elizabeth II had been transported to hospital, followed shortly thereafter by a second tweet announcing: "Queen Elizabeth [sic] has died." The BBC promptly later apologised, stating: "the tweets were swiftly deleted and we apologize for any offence." ([Diebel, 2015](#)). As contrite as the BBC's apology was, the damage was done – the incorrect information spread around the world like wildfire, tarnishing the BBC's reputation for factual editorial.

Side-stepping these extreme situations, we do however find an abundance of conventional and reliable online information and, subsequently, transactions that cross national borders, languages, currencies and cultures.

A 2014 McKinsey Global Institute (MGI) study reported that global flows of goods, services, finance, people, data and communication contributed between 15 and 25% of world GDP, adding: "The country most connected to these flows—and inflows matter as well as outflows in the form of exports— will reap 40% more benefit than the least connected country. In short, connectedness is a virtuous circle—the richer the networks of connectivity and the more diverse the nature of flows and bilateral relationships, the more a country benefits." ([Manyika, et al 2014](#)).

It is quite evident that, in spite of the long-held view that people buy from people they know, the Internet Generation is showing itself quite comfortable in doing business with complete

strangers using nothing more than emails and websites – this, in spite of the widely feared Internet hoaxers, spammers and identity thieves.

Corporate entrepreneurs who recognise this trend have seized the windows of opportunity afforded them. Michael Dell for example, successfully pioneered the online procurement concept two decades ago, selling PCs from an online portal, rapidly becoming the world's No. 1 PC supplier. Now Tesla Motors threatens to disrupt the entire US automobile industry with a similar online direct sales model. According to CNN: “Tesla Motors is the only automaker that sells cars directly to consumers, with all other automakers using independently owned dealerships.” ([O'Toole, 2013](#))

Locally, a 2014 Australian Bureau of Statistics (ABS) report confirmed a similar appetite for online procurement, noting: “76% of Australia's 15.4 million Internet users made a purchase or order over the internet [in 2013]” ([ABS, 2014](#)).

And in the Australian business-to-business arena, the Australian Government created the online AusTender portal to provide centralised publication of Australian Government business opportunities, annual procurement plans, multi-use lists and contracts awarded. Any company can register its area of business interest in an AusTender profile, to receive free automatic notifications via email of the latest business opportunities advertised by Australian Government agencies as they are published ([AusTenders, 2015](#)).

This highly efficient procurement protocol produces bilateral competitive benefits for both purchaser and seller. Firstly, it brings a wider variety of suppliers and service providers to the attention of the purchaser, creating a more competitive tender. It also brings with it the valuable potential to expose the purchaser to alternative solutions that may be the norm in other countries, but are not known to the Australian purchaser. Conversely, it opens doors to qualified offshore companies to do business internationally, without the need for establishing a costly local presence – a valuable exercise that can defer the investment of Capex before doing business in a foreign market.

However, its effectiveness is largely dependent on the accuracy of the tender documentation and its interpretation by the tenderer. All too often, projects incur serious problems because of ‘translation’ issues – not necessarily from erroneous language translation, but more specifically because of incompatible local vernacular. A simple, yet telling example of this disparity was a recent conversation I had with a Bank employee from London who was on vacation in Australia. The banking term ‘eftpos’, while ubiquitous in Australia, was completely foreign to her, even though she had been in banking for 10 years. In Britain, her professional banking terminology for a direct payment is a ‘standing order’, but this is a meaningless

statement in Australia. The bank transfer function is exactly the same, but the terminology is completely different and misinterpretation could lead to contractual problems.

The point being stressed here is the need for internationalisation – not just in the obvious areas of technologies, protocols and regulations – but in the less apparent areas of terminologies, deployment methodologies, application and performance characteristics to name a few.

From BICSI's perspective as a global industry association, for its members to be internationally competitive and successful in the long term, the entire ICT infrastructure sector needs to advocate the development and adoption of international standards and harmonised benchmarks for best practice.

Caution about the global marketplace

Every country has its own set of laws, regulations and standards to ensure safe and reliable functionality of a wide range of products and services within its communities. However, these benchmarks can be very different to those of other countries, and indeed within its own borders. Take mains supply voltage for example. Australia has a nominal 240VAC supply voltage, but its tolerances vary between states. The National Electricity Rules state that voltage at the 'connection point' should remain within $\pm 10\%$ of the 'normal voltage', however electricity distribution network service providers (DNSPs) can elect to make their own declaration of voltage, which is what commonly occurs ([AEMC, 2015](#)). While all similar, they can be – and often are – different, resulting in the potential deterioration of electrical loads connected to the supply. Exacerbating the problem is our similarity to, but slight difference from, the European nominal 230VAC supply voltage. Most electrical appliances used in Australia are now imported from overseas; and most of these being designed for European configuration. It could be argued that, so long as they comply with Australian electrical safety and energy consumption regulations, these products are perfectly acceptable for use in Australia and connection to our electrical supply grid. Not necessarily so.

Voicing his concerns of the consequences of misalignment of our supply voltages and tolerances to imported electrical product specifications, Professor Alex Baitch, Principal, BES (Aust) and Visiting Professorial Fellow at University of Wollongong, stated:

“The problem faced in Australia is that, while electricity DNSPs run their networks with a nominal system-voltage of 240/415 V, increasingly the equipment connected to it is designed for 230/400 V operation. Although this may not seem a major difference, it is in reality a ‘silent killer’, causing the premature failure of much electrical equipment and costing the community dearly.” ([Baitch, 2009](#)).

That same argument translates into other environmental disparities – temperature ranges, humidity, applications, duty-cycle, to name a few. Looking more broadly at the penetration of imported goods in Australia, we may well find similar negative consequences occur in every market where goods and services are transacted across foreign borders, and global or international standards are not promoted and adhered to.

The Global ICT industry

The telecommunications and IT industries were amongst the first to think and act globally. These industries were also early adopters of standardisation, largely driven by very vocal technology end-users who campaigned against proprietary technologies and the entrepreneurs who recognised this distaste, subsequently investing in open-source development. Robust and sophisticated protocols like Ethernet and TCP-IP were made available licence-free to technology developers; and vendor-neutral industry bodies like the Institute of Electrical and Electronics Engineers (IEEE) invested collaboratively amongst its members to develop universal application models.

Today, Ethernet is ubiquitous as a global communications protocol, universally adopted by technology consumers, designers and developers. And its ubiquity is largely due to its deliberate focus on interoperability.

Far-sighted developers who invested in interoperability rather than proprietary systems became internationally competitive at the expense of those who clung to proprietary systems. Where are Wang, Digital Equipment Corp (DEC), Token Ring and AppleTalk today? Very little if anything is invested in these proprietary protocols, and even less is spent on them by users. Whereas millions of dollars are invested in Ethernet development to satisfy the billions of dollars of market demand.

The message is simple – companies that adopt far-sighted standards and invest in the adoption of standardisation become more competitive on the international business arena than those who cling to proprietary technologies.

Promoting sustainable international competitiveness

BICSI has some 23,000 members in over 100 countries around the world. In the ICT communities where BICSI members are present, the association endeavours to drive sustainable and ethical competitiveness, not only amongst its members, but for the business and domestic communities that the industry supports, both locally and where appropriate, internationally. This stance is demonstrated in BICSI's Antitrust Statement, which states in part:

“Association meetings or workshops by their very nature bring competitors together. Accordingly, it is necessary to avoid discussions of sensitive topics. Agreements to fix prices, to allocate markets, to engage in product boycotts and to refuse to deal with third parties are automatically illegal under the antitrust laws. It does not matter what the reason for the agreement might be.

“Accordingly, at any association meeting, discussions of prices (including elements of prices such as allowances and credit terms), quality ratings of suppliers, and discussions that may cause a competitor to cease purchasing from a particular supplier, or selling to a particular customer, should be avoided. Also, there should be no discussion that might be interpreted as a dividing up of territories.

“An antitrust violation does not require proof of a formal agreement. A discussion of a sensitive topic, such as price, followed by action by those involved or present at the discussion is enough to show a price-fixing conspiracy. As a result, those attending an association-sponsored meeting should remember the importance of avoiding not only unlawful activities, but even the appearance of unlawful activity.” ([BICSI, nd](#))

By its very name, internationalisation is paramount to BICSI’s activities. BICSI is an acronym for Building Industry Consulting Service International. The association actively promotes interoperability and interconnectivity through open system architecture and standards that have no borders. The activities of its members in each of these countries has a singular focus – advancing the ICT infrastructure community professionally and ethically, regardless of location.

The association recognises that local laws, regulations and codes govern or influence the ICT industry in each specific country or region. In many locations, including Australia, BICSI directly participates or has representation in the committees that develop related regulations and standards, with the express purposes of contributing best-practice guidance for inclusion in the standards and regulations, as well as better understanding the legislative criteria that drives the regulations.

In some cases, the standards and best-practice manuals that BICSI has developed internally are utilised in the development of nationwide standards and regulations by governments and private enterprise. Recognised as ‘best-of-breed’ standards, the application of these BICSI publications fosters a homogenous community of ICT industry professionals, with stakeholders in many parts of the world.

Speaking at the 2014 BICSI Middle East District Conference in Dubai, Dr. Taseer Ahmed Rangrez DBA, PhD. Member of the United Nations Association of USA, UN Foundation; Advisory Member of Gartner Research Circle; and Advisory Council Member of Harvard Business Review, advocated the importance of standards in industries and communities collectively growing, adding:

“Standards ensure that there are common platforms and interfaces to ensure that Internet growth is not encumbered by incompatibility. It’s not just infrastructure: standards have also been instrumental in the growth of video streaming VoIP and ecommerce.

“According to California State University at Chico, 65% of multinational enterprises believe localization is either important or very important for achieving higher company revenues.

“There is no better proof of your commitment to your international prospects and customers than having your products localized for them. Successful globalization stems from ensuring equal quality standards and a thorough understanding of local elements; implementing standards and conformance tools – streamline processes, trim costs, earn and maintain market access, and boost bottom line; conformity assessment activities benefit public health, the local environment, the development and design of new and improved requirements for the safety and quality of the products.” ([Rangrez, 2014](#))

Localisation of global standards (sometimes referred to as ‘glocalisation’) not only harmonises design methodologies, performance metrics, and deployment techniques, but also ‘bonds’ the stakeholders with a common ‘language’. For example, the fixed cabling between a server and PC is unambiguously qualified in global cabling standards as a link and all its components clearly defined for form, function and performance. Regulations often define this because it’s the fixed cabling that can’t be seen or accessed once the building is functional. On its own however, it can’t function. Adding the interconnecting leads at both ends facilitates connection between the PC and server, but the performance characteristics for this are quite different to the fixed ‘link’. Industry standards refer to this expanded path as a ‘channel’, distinguishing it physically, functionally and performance-wise.

Misinterpretation of these two parameters is common for those who haven’t fully grasped the ‘language’ of international cabling standards and has resulted in non-compliant, substandard or unfit-for-purpose’ ICT infrastructure. In these cases, someone always loses – either the client doesn’t get what they pay for, the provider loses money through rework, or someone’s professional reputation is tarnished. Understanding the industry ‘language’ however, ensures

that systems engineered by one entity, perhaps somewhere else in the world, can be correctly deployed by local teams and confidently deemed fit for purpose.

A common technology ‘language’ is also imperative in large scale ICT projects, such as wide area networks where multiple disciplines and trades are involved. For example, in the deployment of Australia’s National Broadband Network (NBN), optical fibre designers (often telecommunications engineers or technicians) typically produce specifications and drawings for the NBN rollout that are then used by civil contractors to deploy the pit-and-pipe infrastructure where the optical fibre will be hauled into. It’s common for designers to have little civil works experience, nor knowledge of the civil contracting jargon. And it’s equally common for excavator and back-hoe operators to have little knowledge of the telecommunications engineering terminology that ends up on fibre reticulation drawings.

The need for homogenous ‘language between the disciplines and trades cannot be overstated. The manifestation of disparate ‘languages’ in projects of the scale of the NBN rollout is billions of dollars in lost productivity and massive delays in the rollout.

For companies who utilise international standards and apply the guidance of globally developed best-practice manuals, their stakeholders all along the supply chain ‘speak the same language’, resulting in less errors, faster deployment, satisfied clients and more profitability. In short, they are more competitive.

Such positive results have been experienced by organisations that engage BICSI credentialed designers and contractors, knowing not only that they are as highly qualified ICT professionals, but also that they utilise the same standards and design documents – ie. speak the same language. There are several instances in Australia of large US-based engineering firms who are contracted to deliver some of the country’s massive mining projects and have sought out and engaged local BICSI credentialed designers and contractors for the very reason stated above – they speak the same language.

This makes BICSI credential holders highly valuable internationally, because the credentials are exactly the same around the world, and highly sought after by companies who understand the benefits of these credentials. It’s also quite common for BICSI credential holders to secure lucrative jobs in another country, primarily because their BICSI credential is highly regarded.

BICSI’s suite of credentials, standards and best-practice manuals are all internationally developed and recognised. For example, the most recent (13th) edition of BICSI’s longest standing best-practice manual – Telecommunications Distribution Methods Manual (TDMM) – was developed by committees of more than 50 subject-matter-experts from a wide array of industries from all over the world, including Australia and New Zealand. This 2100-page document is considered the definitive reference manual for telecommunications and ICT

infrastructure design by ICT professionals all over the world. First published in 1984 specifically for the North American telecommunications industry, each update edition has seen the manual progressively become truly international, ensuring its suitability for many markets. Input for this manual is drawn from the subject-matter-experts in data networks, telecommunications distribution, copper cabling, optical fibre cabling, testing, earthing, electrical distribution, RF transmission, legal matters, fire protection, building management, AV systems, security systems, healthcare professionals and others, to ensure the guidance provided is comprehensive and relevant to applications all over the world.

BICSI has a high-level Global Development Committee made up of members from several countries that oversees the development of standards and best-practice manuals from its many technical committees in fields that include electronic safety and security, outside plant, data centres and telecommunications project management.

Looking at the broader business landscape, there are many industry-specific associations and groups that have a propensity for collaboration to further the application of best-practice in their spheres of interest. Due to the adoption of digital technologies in so many applications, many associations are reaching out to BICSI to for guidance and education in the infrastructure to support their applications. Such collaboration also facilitates further harmonisation between industries and fosters adoption of existing standards recognised as robust and international.

Some that interface with BICSI on a global scale include IEEE, Ethernet Alliance, TIA and InfoComm. Others, such as ARCIA, ITS Australia, TelSoc and Engineers Australia collaborate with BICSI at a local level to advance best practice amongst its members.

Conclusion

So let's go back to the conundrum with international competitiveness, mentioned in the introduction:

How can consumers determine the suitability of what is offered to them and be certain they're getting what they paid for? And how can suppliers be sure their offering is appropriate for their potential offshore markets?

From BICSI's perspective, the answer is "standards".

Standards that are collaboratively developed by subject-matter-experts drawn from all over the world harmonise the industry and enable us to have the same technical aspirations, to speak the same language, and to have the same metrics of performance and quality. With uniform guidelines and benchmarks that transcend national borders, this enables industry professionals across all layers of the supply chain to work together efficiently and effectively.

Ultimately that makes individuals and companies far more competitive, anywhere in the world that those who do not advocate or practice 'glocal' standardisation.

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