

#### BUSINESS WITHOUT BORDERS: E-BUSINESS AND THE INTERNATIONAL COMMUNITY

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#### Abstract

Superficially, electronic business appears to be a simple way of rendering national borders irrelevant, reaching a vastly increased number of potential customers, and conducting transactions that are “frictionless” i.e. for which transaction costs such as those of identifying customers and the administrative procedures associated with a sale are an order of magnitude lower than those of conventional, “over-the-counter”, transactions.

This is a misconception; there are many obstacles. Different national financial systems may hamper payment. A web advertisement that is perfectly acceptable in one culture may offend people of a different culture. Language differences and imperfect translations may cause offence or confusion. Nations regulate electronic business differently and have different attitudes to civil liberties; authoritarian countries may restrict and supervise their citizens’ web activities.

The most serious impediment to business to consumer activity is fulfilment: Reliably delivering web-ordered goods to consumers is expensive and may be problematic in countries with unsophisticated infrastructures

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## **BUSINESS WITHOUT BORDERS: E-BUSINESS AND THE INTERNATIONAL COMMUNITY**

E-business has been defined as the third phase of e-commerce and encompasses the applications and processes enabling a company to execute transactions whilst maximising customer value and profitability (Kalakota & Robinson, 2001). Theoretically, the Internet has global reach and facilitates participation in global markets by transcending national borders and trade zones. However, despite the ideal of a global "connected economy", approximately 75% of all e-business is conducted in the US and 90% of commercial websites are based in the US (Iyer et al., 2002). The term "connected economy" assumes that the capacity of e-business, especially the Internet, can contribute to globalization by making national borders irrelevant. This paper will address the ways in which the potential contribution of web based techniques (WBTs) to the development of global business is tempered by cultural, logistical, legal, systemic, and other differences amongst countries and regions. We consider outstanding problems and suggest areas meriting further research. Global e-business requires more than creating an accessible web site with maximum usability. It requires strategies and processes to tackle problems caused by national and regional differences in logistics, law, language, culture and technological standards that impede and the emergence of a friction free "connected economy" (Bacheldor, 2000).

### **THE BENEFITS OF A CONNECTED ECONOMY**

The economic advantages of achieving a connected economy are increased innovation, market efficiencies and new modes of trade and commerce (Iyer et al 2002). Such advantages are manifest in the increased real-time availability and volume of information and the proliferation of intermediaries such as e-Bay that link large numbers of buyers and sellers (Bowles, 2000). International e-business growth enables information to be simultaneously available in different locations, increasing the likelihood of a perfect match between buyers and sellers thereby enhancing markets' efficiencies (Iyer, 2002). This is exemplified by Globalfoodexchange.com, a virtual marketplace with global aspirations whose first e-commerce transaction allowed a company in Uganda to sell \$60,000 worth of perch to a fish processing company in Columbia (Bacheldor, 2000). International trade has been traditionally perceived in terms of goods, not services, but web based techniques (WBTs) also provide the ability to distribute information and information services globally. E-services such as, banking, consulting, education, retailing and gambling are increasingly available via the Internet (Mandel & Kunii, 1999). E-business innovation adds new trade dimensions to these industries and facilitates new distribution models exemplified by Amazon.com and Dell.com (Kaul, 2001). "E-business provides greater access to distant markets, reduces the time they take to supply those markets and reduces production, storage and transaction costs" (Iyer 2002). Private firms adopting e-business within their global supply chains have reduced their costs by an estimated 20% (Kaul, 2001). E-business facilitates effective global supply chain management (Reyes et al., 2002), creates an additional channel for customer contact, and provides opportunities to enter new markets (Iyer, 2002). Kaul (2001) asserts that e-business shrinks the distance between producers and customers by allowing them to communicate directly. WBTs facilitate disintermediation: Importers, exporters, wholesalers and retailers can deal directly with their customers, gain intelligence and redefine business relationships. However, companies entering a new market must appreciate peculiarities of that market that may impede the development of electronic businesses. Iyer (2002) too easily assumes that countries and regions are homogeneous and equally hospitable to electronic business. This is not so, cultural, legislative, language and systemic differences may impede the development of electronic business. An optimal global e-strategy may have to have different implementations in different countries and regions. Focusing on economic rationalism while ignoring socio-political factors may be disadvantageous and even fatal (Iyer, 2002).

### **International E-business.**

To investigate country specific e-business variables, the Gartner Group developed the E-business Country Opportunity Index and, after controlling for population size, determined that, in 2000, the US was significantly more advanced than other countries (Drobik, 2000). Gartner's research indicated that a country's Internet penetration index did not always correlate with the observed degree of e-business trading.

This suggests that there are cultural and political variables that moderate e-business adoption. The report identified four categories of countries:

Countries with a high GDP and high Internet penetration rates (USA, Sweden, Canada, Australia).

Countries with a high GDP and low Internet penetration rates (Singapore, Netherlands, UK).

Countries with a lower GDP that has slowed Internet access and determined a different Internet development pattern (Japan, France, Italy, Spain).

Countries with a low GDP and high population and have the lowest Internet Penetration rates (China, Russia, Brazil & South Korea).

The different diffusion rates illustrate the role of cultural and political moderating variables that determine the future success of a connected economy. Ovum Inc (1999) predicts that the US market will saturate post 2002 and most e-business growth will be in developed Asia and Western Europe. The business-to-business (B2B) market will continue to dominate the business-to-consumer (B2C) market in a ratio of about 10 to 1 (Drobik, 2000).

### **Cultural Diversity**

Iyer (2002) opines that cultural differences are the primary source of differences in global Internet development. Hofstede (1984) developed four dimensions of culture that may help explain differences in attitudes towards and the use of e-business:

- Power Distance (PD) - refers to the way in which societies deals with inequality.
- Masculinity/Femininity (MF) – refers to a continuum between the assertiveness, material pursuit and quality of life issues.
- Individualism/Collectivism (IC) – refers to the degree in which a person’s identity is based on the social system.
- Uncertainty Avoidance (UA) –the ability to cope with uncertainty.

Hofstede (1984) concluded that in comparison to the US, Germany, France, Spain and Italy had a strong need for uncertainty avoidance manifest in a perceived loss of control over personal data when buying over the Internet (Wirsdorf, 1999).

### **Languages and Culture**

Roussel (1999) reports that language is a barrier for French, German and Italian e-consumers and that 90% of Internet content is presented in English by default. The development of technical e-business solutions such as those offered by iAsiaWorks allows businesses to “create, host and maintain multilingual Web sites in multiple countries without large, up-front investment in Internet, infrastructure and localization service” (Portnoy, 2001). However, software systems that support multiple languages are not yet able to handle languages such as Chinese, Japanese and Korean that use Asian and Roman characters (D’Amico, 2001). Such content management systems and technologies are underpinned by the desire to implement existing multi-national business and standardize web technologies in more countries (Wilson, 2001). The problem of standardisation is exemplified by HP that, with its subsidiaries, has established more than an estimated 15,000 websites. While multinationals such as HP grapple with the concept of web centralization and standardization, technologies such as content management systems have been neither sought nor implemented (Wilson, 2001). While there is a need to consolidate and integrate e-business, danger exists where web content is over centralized and regional “silos” cannot adapt their corporate messages to culturally distinct consumers. “What may work in the US may be illegal or culturally inappropriate in another country” (D’Amico, 2001). This is exemplified by e-Toys United Kingdom (UK) experience. E-Toys entered the UK market but discovered that they had underestimated the domestic competition (Gomolski, 2001) and the difficulty of learning about and adapting to cultural differences even in a country superficially similar to the United States.

Other examples of the effect of cultural differences being overlooked include: Cartoons of a cow offending Indians; images of bare human limbs offending Muslims; the colour white being associated with death and mourning in China; and images of babies on jars of baby food creating very mixed reactions in countries in which such pictures traditionally depict the container's contents. Some cultures (USA) appreciate uncluttered web sites; others (Japan) appreciate lots of written information.

### **National Policies**

National governments' support for and participation in e-business differ. This is exemplified by contrasting attitudes to e-business regulation. The US prefers to deregulate and the EU prefers to regulate (Iyer, 2002). Europe has displayed a higher concern for individuals' right to privacy and has implemented stricter privacy laws (Turban et al., 1999; Schneider & Perry, 2001). Denmark has banned advertising directed at children; France has banned advertising in English, and Germany has banned comparative advertising (Iyer, 2002). Asian countries such as Malaysia and China view the Web as a threat to government control, limits access, and require companies to submit records from chat rooms and brand communities (Iyer, 2002; Preston, 2001). The US considers highly regulatory frameworks as impediments to achieving a connected economy suggesting that strict policies are likely to hinder e-business growth. However, well-designed legislation, illustrated by the proactive approach of the Isle of Man (IoM), need not impede the growth of e-business. The IoM introduced user-friendly legislation to create a fair regulatory system, offered financial incentives to attract e-business and facilitated validating e-commerce transactions (Crain, 2002). Despite a common currency, there remain many cultural, political and other differences amongst members of the European Community (Iyer, 2002).

In 1997, 160 leading corporations from 26 Commonwealth countries joined the Commonwealth Business Council (CBC) to promote e-business and investment amongst members (Kaul, 2001). The brief was to identify, promote and activate e-commerce initiatives (Kaul, 2001). Despite the efforts of such associations, different legislation and government interventions preserve inconsistencies that confound attempts to transcend international borders and trade zones.

### **International Taxation Law**

Another impediment to global e-business is countries' different tax regimes. The law applicable to a transaction may depend on the location of the source of the income and the parties' locations. "When transactions are taking place on the Internet neither of these definitions are easy to establish" (Corbitt, 2002). There are two ways in which e-commerce transactions inhibit the implementation of taxation laws: (1) The difficulty of establishing the identity of parties to the transaction. This is exacerbated by the technology's ability to conceal the parties' identities and (2) Obtaining relevant records of transactions. Authorities may not know that a transaction has occurred let alone be able to obtain relevant records.

The sheer volume of transactions and encryption (Corbitt 2002) exacerbate these difficulties. Anonymity is not peculiar to e-business and has been exploited by tax havens such as the Cayman Islands and Swiss banks. International consensus may be a prerequisite to a successful solution. Due to the "international nature of e-commerce it would be impractical to act unilaterally" (Corbitt, 2002). Such policies must dictate how to tax an English national who, when visiting Singapore, purchases a CD created by a German pop group from a US based Web site.

### **Intellectual Capital Law**

Extant Intellectual Capital Law also impedes e-business growth. The most common e-business disputes concern domain name registration. Domain names have been traditionally allocated on a first come, first served basis. The exclusive nature of the domain name dictates that there is only one www.general.com. In contrast, General Motors, General Foods and the General Hospital peacefully co-exist. Although the ability to register generic names varies amongst countries, the irrelevance of geography within the online channel has generated new tactics that press the boundaries of existing Intellectual Capital Law and can damage brand equity.

The first issue for a multinational organisation implementing an e-business strategy is selecting appropriate domain name(s). The 200 country suffixes available and the small number of codes such as “com” and “net” confound this decision. It is difficult to find meaningful names that have not already been used. “In essence, a registered domain name is to Internet commerce what ‘location, location, location’ is to traditional brick-and-mortar businesses.” (Tiller, 2001). “As the domain name space grows and as more people gain access to and use the Internet, prudent managers will be pressed to manage domains in a more strategic fashion.” Companies seeking to protect brand equity may purchase a range of domain names to avoid the increasing common practice of cyber-squatting, reverse domain name hijacking (Kopp & Suter, 2000; Elsmore, 2000; Elsmore, 2000a; Elsmore, 2000b), and typo-squatters (Tiller, 2001).

Further complicated by the fact that not all domain names are registered, laws (i.e. the Anticounterfeiting Act) have been developed to protect the rightful owner of the trademark. The unlawful use of trademarked words within programming code allows search engines to retrieve and display records unaffiliated with the appropriate brand. Finally, issues regarding the illicit re-branding of online content and search engines unlawfully selling trademarked words to competitors wishing to leverage from a competitor brand must also be addressed.

In this noncompliant environment, courts have generally been consistent in applying the same generic trademark rules - if the original trademark owner can demonstrate the likelihood of consumer confusion in the marketplace, the court is likely to find some form of infringement. However, research shows that of 121 trademark-based challenges to domain name registrations, most would not qualify as trademark infringement, counterfeiting, or dilution under traditional standards of case law (Mueller, 1998). Combined with the copyright issues that provide a major challenge to the entertainment, media and music industries, future intellectual capital laws must be developed (Heffes, 2002). The reapplication of traditional trademark and copyright laws to the online channel is not sufficient.

### **Global Infrastructure**

A prerequisite for e-business growth is an adequate telecommunication infrastructure underlying Internet access. It is impossible to achieve truly global e-business because some countries (such as Pakistan) do not have the necessary telecommunications infrastructure (Thurston, 2000). For B2C especially, physical fulfilment issues must also be considered. B2C requires the reliable, prompt, and secure delivery of goods to residential addresses (Thurston, 2000). “Asia is not as advanced in e-business as the US or Western Europe, generally due to its phone lines” (D’Amico, 2001). Research exploring interactions between cultural and infrastructure has concluded that satisfaction rates are primarily determined by infrastructure rather than cultural background (Kucuk & Arslan, 2000).

Even where technological and general infrastructure is satisfactory, other factors may intrude. The cost of a local call varies greatly across countries. Calls are free in the USA, but EU calls are charged by the minute. The cost of calling a local ISP continues to impede B2B growth (Wirsdorf, 1999).

### **Global Standardisation**

For companies to exploit the advantages of a “connected economy”, global standards for product identification, coding, and intelligence tagging must be developed. (Richardson, 2001) Existing standards evolved from country specific activities and such issues are receiving attention from a range of organizations exemplified by the Global Commerce Initiative (GCI) whose brief is to promote global supply chain efficiency and enhance customer value (Richardson, 2001). In 2000, the GCI established a working group to recommend a set of global XML standards. Without such standards, it is difficult to address security, the most challenging issue facing the B2C business. (Marshall (2001) found that 40% of executives claimed that transaction security and privacy were barriers to e-business.

## **EVALUATION AND CONCLUSION**

A factor that strongly influences e-business growth is the size of a country's home market (Iyer, 2002). A company's first steps in e-business tend to "practise" on its domestic market advantaging companies with large domestic markets (Iyer, 2002). The availability of venture capital, ample in the US but scarcer in Europe (Iyer, 2001) is also relevant. It is suggested that all variables addressed give rise to market specific variables that should determine the attractiveness of entering a new market via an e-business methodology. In an industry sector such as the chemical industry, the B2C market will be an "afterthought rather than a strategic imperative" (Heffes, 2002). However, the largest barrier to e-business implementation is the necessary re-engineering of business processes and effective change management programs (Marshall, 2001). Whilst such change management concerns are not likely to exhibit the variability observed in government policy, infrastructure or culture, this is perhaps one of the truly global challenges to multinationals attempting to implement global e-business strategies. A recent survey by Wilson (2001) indicates that mediocre infrastructure and poor Internet access services have prevented 40% of multinationals from implementing global e-business strategies.

The number of companies engaging in truly global e-business is debateable (Iyer, 2001), however concerns regarding culture, language, taxation law, intellectual capital law, and technologies must be reflected in strategies of those companies seeking to overcome barriers and participate in the global connected community. Although the barriers to global e-business may not be insurmountable, e-business technologies will neither replace the strategy nor planning required to enter new markets. Building a truly global enterprise via e-business involves addressing and overcoming global barriers before business can operate without borders.

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