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Globalization and E-Commerce

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Abstract. This paper focuses on the relationship between globalization and the adoption of a particular set of ICTs, namely the Internet and electronic commerce, at the firm level. The goal is to move beyond general arguments about these megatrends and to look at their actual dynamics in the operations of business establishments. This paper examines the impacts of globalization on ecommerce and firm performance as the process of globalization has preceded the adoption of the Internet and e-commerce in time.

The findings show that Globalization has differential effects on business to business and business to customer e-commerce, however highly global firms are more likely to do business to business but less likely to do business to customer. The findings imply that e-commerce will reinforce existing international competitive advantages rather than leveling the playing field and enabling local firms to compete with global firms in international markets. In fact local firms may have valuable resources that put them at a competitive advantage in their home markets.

Keywords- Globalization; ICT; E-Commerce; Firm Performance

1. Introduction

Globalization and technological change have created a new global economy “powered by technology, fueled by "information" and driven by "knowledge". In the emerging new global economy, the use and integration of information and communication technologies (ICT) in business and has revolutionized relationships within organizations and those between and among organizations and individuals The ICT is being used by the firms to deliver their services at the locations convenient. Specifically, the use of ICT in business and marketing has enhanced productivity, encouraged greater customer participation, and enabled mass customization, besides reducing costs.

Two major powerful social and economic trends are globalization and the widespread adoption of ICT. Many argue that these two trends are closely associated, each driving the other forward, and both being driven by other common forces, such as trade liberalization, deregulation, migration, and the expansion of capitalism . Pohjola argues that the twin forces of globalization and the ICT revolution are combined to create the so-called new Economy, marked by higher rates of economic and productivity growth [1]. Technology is both driven by and a driver of globalization, as both forces continually reinforces one another [2].

The process of globalization creates new challenges and opportunities for firms. The opportunities include access to new markets and participate in global production networks that are becoming prevalent in many industries such as automotive, electronics, toys and textiles. Globalization has many positive, innovative and dynamic aspects, all related to the increased market access, increased access to capital, and increased access to technology and information which have led to greater income and employment opportunities. Challenges come from foreign competitors entering firms' domestic markets, and from domestic competitors reducing their costs through global sourcing, moving production offshore or gaining economies of scale by expanding into new markets. Globalization challenges firms to become more streamlined and efficient while simultaneously extending the geographic reach of their operations.

Adequate response to these opportunities and challenges requires a restructuring of strategy and processes of firms. [2]. Due to increased competitive pressure, companies are using new technologies to extend their products and into the international marketplace [3]. The firms are also using new technologies to achieve innovative organizational forms [4], [5].

The adoption of ICT such as the Internet makes it cheaper and easier for firms to extend their markets, manage their operations and coordinate value chains across borders [6], [7], [8]. As Greenspan (2001) mentioned, by lowering the costs of transactions and information, technology has reduced market frictions and provided significant impetus to the process of broadening world markets [9]. ICT adoption fosters globalization by reducing the cost of transaction and coordination and creating new and expanded markets with economies of scale [10], [11].

This paper focuses on the relationship between globalization and the adoption of a Particular set of ICTs, namely the Internet and electronic commerce, at the firm level. The goal is to move beyond general arguments about these "megatrends" and to look at their actual dynamics in the operations of business establishments.

2. Conceptual Framework

Globalization is one of the most contested topics; in fact even the definition of globalization is hotly debated and often contested, it has not been reached widely-agreed and precise definition. In fact the concept of globalization is wide and rarely defined in its boundaries and encompasses a range of disciplines and different perspectives. It represents one of the main important concepts for understanding the contemporary world reality. This process develops changes that are noticed throughout different fields: social, political and economic aspects. The process of migration and the demographical tendencies influence the movement of work forces in the work market. The concept of globalization is used in different types of definitions. Globalization is conceptualization of the international political economy which suggests and believes essentially that all economic activity must be conducted within a perspective and attitude that constantly is global and worldwide in its scope [12].

The most obvious signs of globalization are the constant acceleration of the increasing rhythm of international commerce and of the trans- frontiers investments, and also the increasing competition which should result in welfare. Globalization represents a fundamental transformation of the structures, organization and nature of international commerce. All the industrial sectors undergo deep structural changes which become more obvious in the sectors highly based on advanced technologies. Globalization can be defined by three peculiar dimensions: discipline in global market, financial contents and economic network. The market discipline refers not only to goods and products but also to work and capital. The financial contents refer to the speed of money travels across the borders and the economic networks are founded on the economic information.

Globalization redefines the role and functions of nation state, emphasizing its strategic role in coordination opposing to the interfering redistributive state, specific to the period after the Second World War. The extension of globalization and the emergence of transnational societies has brought along an increased preoccupation for the components of the marketing and distribution policy. Starting from the mid 90s, the process of distribution internationalization has intensified. Globalization has been defined as the process in which the production and financial structures of countries are interlinked by an increasing number of cross-border transactions [13].

The findings of empirical macroeconomics researches show that the global economies invest higher levels of ICT. Since it is the firms which make most of these investments, it is reasonable to expect that global firms would likely adopt technologies such as the Internet and e-commerce. The empirical studies support the argument that the opening of markets to trade and foreign investment leads local firms to invest in ICT and to remain competitive. The process of globalization is a powerful driver for firms to adopt specific ICT and e-commerce. The reasons for globalization are, economic and technological in nature. Geopolitical in the sense that previously isolated geographical regions are becoming more connected and able to compete on the world stage. Increased private financial investment, trade activity and tourism are economic and financial manifestations of globalization, while increased connectivity through Internet connections, e-commerce is reshaping business in a globally orientated marketplace.

Globalization creates integration of national economies into a world market through trade, investment and other financial flows [14]. It has caused anxiety worldwide about the direction that society is taking. Globalization as an economic phenomenon linked with the development and consolidation of the global market. Today globalization may be said to be covering the expansion, deepening and acceleration at planetary level of the reciprocal connections between all aspects of community life, from culture to crime, and from finance to religion. The world is turning into a single social space, shaped by complex economic and technological forces. New problems and challenges for society have emerged. Events occurring, decisions taken and measures introduced in one part of the world can have profound effects on the lives of individuals or communities in another. The impact of these changes is so immeasurable that governments and individuals can do little to contest or resist them.

Globalization is characterized by four major trends:

i. Increased flows of commodities and persons
ii. Expansion and diversification of financial activities
iii. Development of communication, networks, knowledge and relationships
iv. increasing disparities, even though it must also be recognized that overall wealth has increased enormously as a result of globalization and of the more open trade it has brought – both globally and for many rapidly evolving countries such as China and India, and in the transition countries in central and eastern Europe.

The analysis in this paper is based on a conceptual framework that relates globalization, e-commerce adoption and impacts on firm performance. The framework posits that the degree of globalization will influence directly the performance of firm firm y as well as indirectly.

3. E-Commerce

The internet has been likened, in its ability to change the nature and operations of markets, to such past epochal events as the advent of railroad and the introduction and growth of the telephone system [15]. Globalization has been defined as the process by which markets and production in different countries are becoming increasingly inter-dependent due to the dynamics of trade in goods and services and flows of capital and technology [16]. Globalization can be defined as any economic transactions where the buyer and seller come together through the electronic media of the Internet, form a contractual agreement concerning the pricing and delivery of particular goods and services, and complete the transaction through delivery of payments and goods and services as contracted [7]. E-Commerce refers to a wide range of online business activities for products and services [17].

E-commerce is generally considered to be the sales aspect of e- business. It also consists of the exchange of data to facilitate the financing and payments. E-commerce is the exchange of goods and services between four broad groups over the Internet. This can happen between businesses and consumers, businesses and businesses, intra-companies, and consumers and consumers. E-commerce encompasses any commercial activity that takes place directly between a business, its partners or its customers through a combination of computing and communications technologies. It takes into account sales, marketing, communications, service, and workflow. The entire workflow in an e-commerce model is automated and streamlined in order to avoid mistakes and eliminate paperwork [18]. E-commerce is considered to be a new way of trade communication and is one of ten trends predicted to transform the printing industry [19].There is several systems out on the market for implementing this process.

E-commerce is usually associated with buying and selling over the Internet, or conducting any transaction involving the transfer of ownership or rights to use goods or services through a computer-mediated network. Though popular, this definition is not comprehensive enough to capture recent developments in this new and revolutionary business phenomenon. A more complete definition is: E-commerce is the use of electronic communications and digital information processing technology in business transactions to create, transform, and redefine relationships for value creation between or among organizations, and between organizations and individuals [20].

4. E-Commerce and Globalization

Globalization and e-commerce are expected to change economic structure of nations. The expected superior economic structure is mainly influenced by the above two factors. In literature the new structure is generally referred as Knowledge Economy, New Economy or E-economy [1]. E-commerce not only reduces communication costs, but also increases flexibility in locating activities. Research posits that internet technology has lead to an increase in international trade [21].

International trade has increased over time, with one hypothesized caused using technologies. E-commerce is a nebulous term used to describe business sales transactions mediated by the Internet or other computer networks rather than through direct interaction between humans. E-commerce benefits internationalization in two ways:

There is a direct substitution of e-business technology and processes for physical locations, manual processes, or other expediting functions.

E-commerce reduces coordination costs, which can reduce the costs of working with those foreign subsidiaries still required because of the nature of the product or service or because of regulation or cultural issues [22].

While any evaluation of the potential consequence of the growth of e-broker age activity is necessarily speculative, it seems plausible that those consequences will derive primarily from changes in the costs of acquiring, processing and transmitting information among market participants [23]. In this regard, segmenting the brokerage process into a number of components or value-added activities facilitates an evaluation of how e-commerce might alter the completive process [24]. The first component involves the basic linking of buyers and sellers. Here the booker's primary role is to serve as an intermediary between those selling and those purchasing securities. The advent of e-broker services has significantly expanded the scope for competing in the transaction function. It is clear that the growth of e-brokerage services has contributed to substantial reductions in average brokerage commission wherever those services have taken hold. Most obviously, the Internet has dramatically reduced the cost of communicating information on a point to multi point basis. In addition, e-commerce is enhancing the underlying economies of scale in processing securities transactions.

Globalization and E-Commerce Adoption

Firm globalization is heralded as a key driver of e-commerce diffusion .It is expected that highly global firms are likely to employ e-commerce more intensively than less global firms. Firms facing foreign competition are under greater pressure to adopt technologies such as e-commerce that enable them to protect or expand market share and operate more efficiently.

Firms doing business outside their own country may be more motivated to lower their transaction costs (such as search for information, negotiation, and monitoring of performance) by using information technology. Using the Internet for transactions and coordination can save time and money on delivery of goods by using rich information flows to simplify and streamline the flows of physical goods in the supply chain.

Firms that buy and sell in international markets are under pressure from trading partners to adopt e-commerce to improve coordination with other members of the value chain. This is especially true in the case of global network production dominated by multinational corporations that may require partners to adopt ecommerce in order to do business with the multinational corporations. These considerations lead to our first hypothesis.

It is often assumed that e-commerce adoption is a global process, driven by a common set of actors. However, there is a theoretical basis for expecting that some industries and business activities will tend toward global convergence while others will be marked by local divergence [21].

Globerman and his colleagues apply Porter's theories to e-commerce specifically [8]. They contend that the impacts of e-commerce differ across various stages of an industry's value chain, and that purchase of business inputs (B2B) is becoming globalized while purchase of end services by consumers (B2C) tends to remain localized. They focus on the retail brokerage industry and conclude that retail (B2C) e-commerce is relatively unaffected by globalization and is characterized by multi-domestic competition due to the heterogeneity of consumers and different national regulatory systems. By contrast, they find that e-commerce for wholesale brokerage activity (B2B) is more globalized.

As a result, they argue that e-commerce is not inherently a globalizing force, but one that can actually enhance local competitive advantage [11]. Similarly Steinfield & Klein argue that rather than fostering seamless global markets equally open to all businesses, much e-commerce activity (particularly B2C) is regionally focused [11]. Steinfield and his colleagues furthermore argue that local businesses can develop Web strategies that successfully leverage their local physical presence. Thus, firms that leverage their local presence with their online business strategy may have competitive advantage over firms with only virtual presence, for several reasons. First, embedment in pre-existing relationship enhances consumer trust and recognition of online firms. Second, integrating online business with local presence helps to serve diverse consumer preferences and shopping habits and takes advantage of local knowledge. Finally, such firms can take advantage of an existing infrastructure for delivering physical goods and services. Research at the country level suggests that global convergence may take place in B2B e-commerce through integration of business processes and systems, but B2C e-commerce seems to remain more of a local phenomenon due to national divergence in consumer preferences and habits.

Based on the combination of theory and empirical findings, we hypothesize that globalization has different effects on B2B versus B2C ecommerce adoption, with highly global companies engaging more in B2B and less global companies engaging more in B2C. Since B2B e-commerce constitutes large majority of ecommerce activity as higher levels of B2B carried out by global firms would dwarf the advantage of local firms in B2C, leading to higher overall ecommerce adoption by global firms. In this section, we can conclude that;

1) Firms that are highly global will have a greater overall level of e-commerce adoption.
2) Firms that are highly global will have higher levels of B2B e-commerce adoption.
3) Firms that are highly global will have lower levels of B2C e-commerce adoption.

Globalization and Firm Performance

There is a direct relationship between firm globalization and firm performance. It is expected highly global firms to perform better in terms of increased sales, lower costs, and improved competitive position. It is likely that global firms will realize greater impacts on performance, because they can employ knowledge and resources developed throughout their global operations to improve business processes and more effectively deploy ecommerce technologies. Global firms are also in a better position to benefit from e-commerce as they can achieve economies of scale and global reach. Globalization should also have an indirect effect on performance through e-commerce adoption, since highly global firms will use ecommerce more extensively, and extensive use will result in improved performance. Ecommerce adoption will thus mediate the effects of globalization on firm performance.

These direct and indirect effects of globalization should have additive functions. This leads to our and fourth and fifth findings.

4) E-commerce adoption will mediate the impacts of globalization on firm performance.
5) Firms that are highly global will experience greater performance improvements since adopting e-commerce.

E-Commerce Adoption and Firm Performance

Adoption of new information technologies is expected to result in improved firm performance, such as reducing transaction costs and closer coordination of economic activity among business partners. E-commerce specifically (B2B) is predicted to result in lower coordination or transaction costs due to automation of transactions online, as well as productivity and efficiency gains. E-commerce also is expected to facilitate entry into new markets or extension of existing markets.

It is expected the extent to which firms adopt e-commerce to lead to specific types of performance improvements. To illustrate, we would expect a firm that uses the Internet for sales and marketing, for procurement, and to coordinate and share information with suppliers and customers would see greater impacts on performance than one that simply has a website with marketing information. If this is the case, then there should be a direct relationship between level of adoption and firm performance, in terms of increased efficiency, coordination, and sales and market position. This leads to our sixth findings.

6) Firms with a greater level of e-commerce adoption will experience greater impacts on performance.

5. Conclusions

This paper attempted to survey the relationship between globalization and the adoption of a particular set of ICTs, namely the Internet and electronic commerce, at the firm level. This paper examined the impacts of globalization on e-commerce and firm performance as the process of globalization has preceded the adoption of the Internet and e-commerce in time. This research shows the relationship between globalization and e-commerce.

The findings imply that e-commerce will reinforce existing international competitive advantages rather than leveling the playing field and enabling local firms to compete with global firms in international markets. The local firms may have valuable resources that put them at a competitive advantage in their home markets. These include local knowledge, strong brand names, distribution channels and service infrastructure. These resources can be an advantage in B2C e-commerce and are not easy for global firms to replicate in each national market around the world. This implies that less global firms can look for opportunities in local markets rather than trying to use the Internet to reach far-flung international markets. If these firms do want to expand into global markets, they are more likely to do so by adopting B2B ecommerce to break into the global production networks for multinational corporations than by trying to sell directly to foreign consumers.

The findings show that Globalization has differential effects on business to business and business to customer e-commerce, however highly global firms are more likely to do business to business but less likely to do business to customer. The findings imply that e-commerce will reinforce existing international competitive advantages rather than leveling the playing field and enabling local firms to compete with global firms in international markets. In fact local firms may have valuable resources that put them at a competitive advantage in their home markets.

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