



Economics and impacts of e-commerce

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ABSTRACT

Objective: Innovations in information and communications technologies have created a digital revolution that is changing the way the world works, learns, communicates and transacts business. **Methodology:** E-commerce continues to show strong growth and has been influencing the social and economic growth of nations. On one hand e-commerce technologies have helped nations to accelerate their economic growth and to provide more opportunities for businesses to grow, but it has also created many challenges and effects across numerous domains of society, and for policy makers. **Results:** These issues involve economic productivity, intellectual property rights, privacy protection, and affordability of and access to information, among other concerns. **Conclusion:** This letter describes the various economic impacts and influences that have been created by e-commerce.

1. Introduction

The revolution in computing and communications of the past few decades, indicate that technological progress and use of information technology will continue at a rapid pace. The Internet's growth and e-commerce has begun to create fundamental change in government, societies, and economies with social, economic and political implications (Coppel, 2000). These advances present many significant opportunities but also are having wide-ranging effects across numerous domains of society, and for policy makers. Issues involve economic productivity, intellectual property rights, privacy protection, and affordability of and access to information, among other concerns. Electronic commerce promises to be the momentum behind a new wave of economic growth (Litan & Rivlin, 2001). E-commerce has already improved business value by fundamentally changing the ways products are conceived, marketed, delivered, and supported. The relationship and interaction of various stakeholders such as customers, suppliers, strategic partners, agents, and distributors is entirely changed. On the positive side, e-commerce has been creating opportunities for individuals and businesses in the new economy. E-commerce is helping organizations to reduce transaction, sales, marketing, and advertising costs. E-commerce is also helping businesses to reach global markets efficiently 24 hours per day, seven days per week, 365 days per year. Many of the benefits come from improved consumer convenience, expanded choices, lower prices, and the opportunity for better interactions with partners, suppliers and targeted customers for service and relationships. E-commerce has also improved product promotion through mass-customization and one-to-one marketing. Adoption of new information technologies, particularly e-commerce, is expected to result in improvements in firm performance, such as reducing transaction costs and closer coordination of economic activity among business partners (Steinfeld & Whitten, 1999). E-commerce specifically (especially 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 and the extension of existing markets, and greater integration of systems with suppliers and customers. As e-commerce continues to grow rapidly, it could have significant effects on the social and economic structures of economy. The impacts of these changes are diverse and may even widen the digital divide among nations, alter the composition of trade, disrupt labor markets, and change taxation (Boateng et al., 2008). Widespread use of the Internet for e-commerce may have ramifications for intellectual property rights, privacy protection, and data filtering, etc. Therefore, in the digital economy, it is becoming imperative to know how e-commerce affects organizations and society and raises social concerns. Some of these effects of e-commerce are unintentional and create adverse business and personal conditions that could have societal consequences. Social and economic aspects of ICTs have been studied by a wide variety of researchers and practitioners for over 50 years (Ramanathan et al., 2012). However, the influences of e-

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commerce are far bigger than imagined before (Gunasekaran et al., 2002).

2. Materials and methods

The essential in the new economy is a structural shift from the industrial economy toward an economy characterized by information, intangibles and services and a parallel change toward new work organizations and institutional forms. Many new terms have been coined for this new economy such as —knowledge-based economy, || —borderless economy, || —weightless economy, || —networked economy, || —digital economy, || —the information-based economy, || and —the networked economy|| to name a few (Terzi, 2011). A digital economy is a convergence of communications, computing, and information. The new economy is basically about coordination, innovation, selection and learning. The combination of networked computing technologies and new business models is creating entirely new markets, industries, businesses, and work practices today to form a digital economy. The new economy or digital economy is based more in the form of intangibles, information, innovation, and creativity, in expanding economic potential (Drew, 2003) and is based on the exploitation of ideas rather than material things. The focus of the new economy moves from processing material input into material output toward creation, trading and distribution of knowledge, intellectual property and intangibles. The symbiosis between changing production and business processes and information and communication technologies (ICT) is the driving force toward the new, digital economy. The key to understanding the new economy is services and the measurement of services. The modern industrial enterprise is largely a producer of services integrated or embedded in the product. A large part of this service production concerns the use of information in some form (Bendoly & Kaefer, 2004). The essential elements of the digital economy are:

- digitalization and intensive use of information and communication technologies (ICT);
- codification of knowledge;
- transformation of information into commodities;
- new ways of organizing work and production.

2.1 Positive Influences of E-Commerce for Businesses

Electronic Commerce or e-commerce is the exchange and processing of business transaction information using computers connected through a network. E-commerce does have unique advantages for businesses. It allows a shop, a showroom or an office to open 24 hours a day, seven days a week. It also means that time zones are not a problem. A Web site can bring a prospect from the point of advertising and information directly to the point of sale, seamlessly, without involving any other medium. E-commerce has reinvented the way businesses operate. E-commerce has also allowed the establishment of completely new types of businesses such as online shopping and Internet banking. These new ways of thinking, and processes involved in commerce, provide many benefits and advantages. Ecommerce brings substantial net benefits to the economy. The real impact of e-commerce is its ability to reduce costs and prices and make doing business more efficient. The increased productivity will result from lower production costs, lower inventory holding costs and lower overall input costs to a business. These savings permeate through the entire value chain and impact significantly in business interactions with other businesses (Sharma & Gupta, 2003).

The Internet is providing considerable opportunities for firms to streamline their business operations as well as offering greater choice and lower prices to customers shopping online or alternatively obtaining product information before making a store or catalogue purchase. A large number of enterprises have migrated to Internet-based systems for increased efficiencies, lower costs and the ability to operate in real time across different platforms. Ecommerce is changing business economics and as a result many firms are re-engineering their core business processes. Suppliers and retailers are able to collaborate on product forecasts and product flow and inventory management decisions using the collaborative Internet-based networks between suppliers and retailers. In addition to reducing costs, e-commerce solutions permit customers to custom order products based on individual needs and preferences. Retailers are able to allow customers to mass customize orders based on virtually thousands of choices. Internet based systems are more efficient in communicating customized product information to suppliers. The entire value chain makes better decisions collaboratively with the end result being vastly improved performance throughout the entire chain. The Net economy or digital economy will result in lower prices for consumers, better information access and increased competitiveness of small and mid-size businesses. It will also pave the way for a true global trading community.

2.2 Competition in the digital economy and its impact on industries

2.2.1 The internet ecosystem

The prevailing model of competition in the Internet economy is more like a web of interrelationships than the hierarchical command-and-control model of the industrial economy. Because of these interrelationships, the business model of the Internet economy has been called the Internet ecosystem. Just like an ecosystem in nature, the activities in the Internet economy are self-organizing. The Internet economy has low barriers to entry, and so it is expanding rapidly. As the Internet ecosystem evolves both technologically and in population, it will be even easier and likelier for countries, companies, and individuals to participate in the Internet economy. Already, a \$1 trillion technical infrastructure is in place, ready and available for anyone to use at any time—free of charge. New ideas and ways of doing things can come from anywhere at any time in the Internet economy. Some of the old rules of competition no longer apply.

2.2.2 Competitive Factors

EC competition is very intense because online transactions enable the following:

☐ Lower search costs for buyers. E-markets reduce the cost of searching for product information (e.g., sellers, models, prices, etc.), frequently to almost zero. This can significantly impact competition, enabling customers to find cheaper (or better) products and forcing sellers, in turn, to reduce prices and/or improve customer service. Sellers that provide information to buyers can exploit the Internet to gain a considerably larger market share. For example, according to Tsai Wal-Mart and Walgreens are developing intelligent search tools that are expected to increase online sales on their sites by 25 to 50 percent.

☐ Speedy comparisons. Not only can customers find inexpensive products online, but they also can find them quickly. For example, a customer does not have to go to several bookstores to find the best price for a particular book. Using shopping search engines such as allbookstores.com, bestwebbuys.com/books, or shopping.com for consumer products, customers can find what they want and compare prices. Companies that sell online and provide information to search engines will gain a competitive advantage.

☐ Lower prices. Buy.com, Half.com, and other companies can offer low prices due to their low costs of operation (no physical facilities, minimum inventories, etc.). If volume is large enough, prices can be reduced by 40 percent or more.

☐ Customer service. Amazon.com and Dell, for example, provide superior customer service such service is an extremely important competitive factor.

☐ Barriers to entry are reduced. Setting up a Web site is relatively easy, fast, and inexpensive, and doing so reduces the need for a sales force and brick-and-mortar stores. Companies have to view this as both a threat (e.g., Where will our next competitor come from?) and as an opportunity (e.g., Can we use our core competencies in new areas of business?).

☐ Virtual partnerships multiply. With access to a World Wide Web of expertise and the ability to share production and sales information easily, the ability of a firm to create a virtual team to exploit an EC opportunity increases dramatically.

The Internet is especially good at reducing interaction costs, the time and money expended when people and companies exchange goods, services, and ideas (e.g., meetings, sales presentations, telephone calls).

☐ Market niches abound. The market-niche strategy is as old as the study of competitive advantage. What has changed is that without the limits imposed by physical storefronts, the number of business opportunities is as large as the Web. The challenge strategists face is to discover and reap the benefits from profitable niches before the competition does so.

☐ Differentiation and personalization. Differentiation involves providing a product or service that is not available elsewhere. For example, Amazon.com differentiates itself from other book retailers by providing customers with information that is not available in a physical bookstore, such as communication with authors, almost real-time book reviews, and book recommendations.

2.2.3 Impact on whole industries

In addition to its impact on functional areas and organizations, EC is reshaping entire industries. In addition to impacting internal competition, major changes are taking place in the way that business is done. For example, the travel and hospitality industry are going through a major transition. The health-care industry also is undergoing dramatic changes. Suomi identifies the following major emerging changes in the health-care industry:

☐ Patient self-care is growing rapidly.

☐ The amount of free medical information is exploding (e.g., WebMD.com).

☐ Patient empowerment is gaining importance (more information, more choices).

☐ Increasing electronic interaction among patients, hospitals, pharmacies, etc.

☐ Increasing digital hospital and other health-care facilities.

☐ Data collected about patients is growing in amount and quality.

☐ Easy and shared access to patient data.

☐ Elder care and special types of care are improving significantly due to wireless systems.

☐ Increasing need to protect patient privacy and contain cost.

2.2.4 Impacts of EC on business processes and organizations

Little statistical data or empirical research on the full impact of EC is available because of the relative newness of the field. Therefore, the discussion in this section is based primarily on experts' opinions, logic, and some actual data. Existing and emerging Web technologies are offering organizations unprecedented opportunities to rethink strategic business models, processes, and relationships. Feeny called these e-opportunities, dividing them into three categories: e-marketing (Web-based initiatives that improve the marketing of existing products); e-operations (Web-based initiatives that improve the creation of existing products), and e-services (Web-based initiatives that improve customer services). Zwass also addressed the opportunities of e-market places: the creation of virtual marketplaces with desired rules, flexible pricing (including price discovery), multichannel marketplaces (including bricks-and-clicks), customization, and new business models. The discussion here is also based in part on the work of Bloch et al. who approached the impact of e-marketplaces on organizations from a value-added point of view. Their model, divides the impact of e-marketplaces into three major categories: improving direct marketing, transforming organizations, and redefining organizations (Hong & Zhu, 2006).

2.3 Improving marketing and sales

Traditional direct marketing is done by mail order (catalogs) and telephone (telemarketing). According to the Direct Marketing Association, actual sales generated by direct mail totaled \$747.6 billion in 2004, and increased to about \$960 billion by 2007. This figure is small, but growing rapidly (about 15 percent in 2005). Bloch et al., Kioses et al., and Singh describe the following impacts of e-marketplaces on B2C direct marketing (Falk & Hagsten, 2015):

☐ Product promotion. The existence of e-marketplaces has increased the promotion of products and services through direct marketing. Contact with customers has become more information rich and interactive.

- ☐ New sales channel. Because of the direct reach to customers and the bidirectional nature of communications in EC, a new distribution channel for existing products has been created.
- ☐ Direct savings. The cost of delivering information to customers over the Internet results in substantial savings to senders of messages. Major savings are realized in delivering digitized products (such as music and software) rather than physical ones.
- ☐ Reduced cycle time. The delivery time of digitized products and services can be reduced to seconds. Also, the administrative work related to physical delivery, especially across international borders, can be reduced significantly, cutting the cycle time by more than 90 percent. One example of this is TradeNet in Singapore, which reduced the administrative time of port-related transactions from days to minutes. Cycle time can be reduced through improvements along the supply chain (e.g., by using RFID).
- ☐ Improved customer service. Customer service can be greatly enhanced by enabling customers to find detailed information online. For example, FedEx and other shippers allow customers to trace the status of their packages. Also, autoresponders can answer standard e-mail questions in seconds. Finally, human experts' services can be expedited using help-desk software.
- ☐ Brand or corporate image. On the Web, newcomers can establish corporate images very quickly. What Amazon.com did in just 3 years took traditional companies' generations to achieve. A good corporate image facilitates trust, which is necessary for direct sales. Traditional companies such as Intel, Disney, and Wal-Mart use their Web activities to affirm their corporate identity and brand image.
- ☐ Customization. EC enables customization of products via the build-to-order process. Buying in a store or ordering from a television advertisement usually limits customers to a supply of standard products. Dell is the classic example of customization success. Today, customers can configure not only computers but also cars, jewelry, shoes, clothes, gifts, and hundreds of other products. If done properly, a company can achieve mass customization that provides a competitive advantage and increases the overall demand for certain products and services. Customization is changing marketing and sales activities both in B2C and in B2B.
- ☐ Personalization. Personalization refers to —get-it-your way in services and digital information (e.g., news, stock prices, weather in your city, and so forth).
- ☐ Advertising. With direct marketing and customization and personalization comes one-to-one, or direct, advertising, which can be much more effective than mass advertising. Direct advertising creates a fundamental change in the manner in which advertising is conducted, not only for online transactions but also for products and services that are ordered and shipped in traditional ways. As shown in Chapter 4, the entire concept of advertising is going through a fundamental change due to EC.
- ☐ Ordering systems. Taking orders from customers can be drastically improved if it is done online, reducing both processing time and mistakes. Electronic orders can be quickly routed to the appropriate order-processing site. This process reduces expenses and also saves time, freeing salespeople to develop marketing plans.
- ☐ Market operations. Direct e-marketing is changing traditional markets. Some physical markets may disappear, as will the need to make deliveries of goods to intermediaries in the marketplace. In an e-marketspace, goods are delivered directly to buyers upon completion of the purchase, making markets much more efficient and saving the cost of the shipment into and from the brick and mortar store.
- ☐ Accessibility. The ability to access a market anytime from any place (especially with wireless devices) enhances direct e-marketing.

2.4 Transforming organizations

A second impact of e-marketplaces is the transformation of organizations. Here, we look at two key topics: organizational learning and the nature of work. Technology and Organizational Learning Rapid progress in EC will force a Darwinian struggle: to survive, companies will have to learn and adapt quickly to the new technologies. This struggle will offer them an opportunity to experiment with new products, services, and business models, which may lead to strategic and structural changes. These changes may transform the way in which business is done. We believe that as EC progresses, it will have a large and durable impact on the strategies of many organizations. Thus, new technologies will require new organizational structures and approaches. For instance, the structure of the organizational unit dealing with e-marketspaces might be different from the conventional sales and marketing departments. Specifically, a company's e-commerce unit might report directly to the chief information officer (CIO) rather than to the sales and marketing vice president. To be more flexible and responsive to the market, new processes must be put in place. For a while, new measurements of success may be needed. For example, the measures—called metrics—used to gauge success of an EC project in its early stages might need to be different from the traditional revenue–expenses framework. However, in the long run, as many dot-coms have found out, no business can escape the traditional revenue–expenses framework.

In summary, corporate change must be planned and managed. Before getting it right, organizations may have to struggle with different experiments and learn from their mistakes.

2.5 Redefining organizations

The following are some of the ways in which e-markets redefine organizations:

2.5.1 New and Improved Product Capabilities

E-markets allow for new products to be created and for existing products to be customized in innovative ways. Such changes may redefine organizations' missions and the manner in which they operate. Customer profiles, as well as data on customer preferences, can be used as a source of information for improving products or designing new ones.

Mass customization, as described earlier, enables manufacturers to create specific products for each customer, based on the customer's exact needs. For example, Motorola gathers customer needs for a pager or a cellular phone, transmits the customer's specifications electronically to the manufacturing plant where the device is manufactured, and then sends the finished product to the customer within a day. Dell and General Motors use the same approach

in building their products. Customers can use the Web to design or configure products for themselves. For example, customers can use the Web to design T-shirts, furniture, cars, jewellery, Nike shoes, and even a Swatch watch. With the use of mass customization methods, the cost of customized products is at or slightly above the comparable retail price of standard products. Exhibit A.3 shows how customers can order customized Nike shoes.

3. Discussion and results

3.1 New Industry Order and Business Models

E-markets affect not only individual companies and their products, but also entire industries (e.g., airlines are moving to electronic ticketing and stocks are moving to online trading). The wide availability of information and its direct distribution to consumers will lead to the use of new business models (e.g., the name-your-own-price model of Priceline.com).

3.2 Improving the Supply Chain

One of the major benefits of e-markets is the potential improvement in supply chains. Self-Service. One of the major changes in the supply chain is to transfer some activities to customers and/or employees through self-service. This strategy is used extensively in call centers (e.g., track your package at UPS or FedEx), with self-configuration of products (e.g., Dell, Nike), by having customers use FAQs, and by allowing employees to update personal data online. Shifting activities to others in the supply chain saves money and increases data accuracy and accountability.

3.3 Impacts on Manufacturing

EC is changing manufacturing systems from mass production lines to demand driven, just-in-time manufacturing. These new production systems are integrated with finance, marketing, and other functional systems, as well as with business partners and customers. Using Web-based ERP systems (supported by software such as SAP R/3), companies can direct customer orders to designers and/or to the production floor within seconds. Production cycle time can be cut by 50 percent or more in many cases, even if production is done in a different country from where the designers and engineers are located.

3.4 Impacts on Finance and Accounting

E-markets require special finance and accounting systems. Most notable of these are electronic payment systems. Traditional payment systems may be ineffective or inefficient for electronic trade. The use of new payment systems such as electronic cash is complicated because legal issues and agreements on international standards are involved. Nevertheless, electronic cash is certain to come soon, and it will change how payments are made. It could also change consumers' financial lives and shake the foundations of financial systems.

Executing an electronic order triggers an action in what is called the back office. Back-office transactions include buyers' credit checks, product availability checks, order confirmations, changes in accounts payable, receivables, billing, and much more. These activities must be efficient, synchronized, and fast so that the electronic trade will not be slowed down. An example of this is online stock trading. In most cases, orders are executed in less than 1 second, and the trader can find an online confirmation of the trade immediately.

One of the most innovative concepts in accounting and finance is the —virtual close, || which would allow companies to close their accounting records, or —books, || within a day. For more on impacts of EC on the financial services industry.

3.5 Impact on Human Resources Management and Training

EC is changing how people are recruited, evaluated, promoted, and developed. EC also is changing the way training and education are offered to employees. Online distance learning is exploding, providing opportunities that never existed in the past. Companies are cutting training costs by 50 percent or more, and virtual courses and programs are mushrooming.

New e-learning systems offer two-way video, on-the-fly interaction, and application sharing. Such systems provide for interactive remote instruction systems, which link sites over a high-speed intranet. At the same time, corporations are finding that e-learning may be their ticket to survival as changing environments, new technologies, and continuously changing procedures make it necessary for employees to be trained and retrained constantly, a process known as e-Human Resources. EC systems are revolutionizing human resources (HR) operations.

3.6 The changing nature of work

The nature of some work and employment will be restructured in the Digital Age; it is already happening before our eyes. For example, driven by increased competition in the global marketplace, firms are reducing the number of employees down to a core of essential staff and outsourcing whatever work they can to countries where wages are significantly lower. The upheaval brought on by these changes is creating new opportunities and new risks and is forcing people to think in new ways about jobs, careers, and salaries.

Digital Age workers will have to be very flexible. Few will have truly secure jobs in the traditional sense, and many will have to be willing and able to constantly learn, adapt, make decisions, and stand by them. Many will work from home. The Digital Age company will have to view its core of essential workers as its most valuable asset. It will have to constantly nurture and empower them and provide them with every means possible to expand their knowledge and skill base.

3.7 Impact on Tax, Trade and Regulatory Policies

E-commerce has a strong impact on taxation and tax policy. Concerns have been expressed that e-commerce could result in the erosion of tax bases. Consumption taxes are levied on the principle of taxation at the place of consumption and according to rates set in individual countries, or in individual states in the case of federal nations. Ecommerce, however, has the potential to undermine the application of domestic and national tax rules. Tax planning for an e-business differs from tax planning for a traditional brick and-mortar company. Historically, the generation of income depended on the physical presence of assets and activities. This physical presence, or permanent establishment, generally determined which jurisdiction had the primary right to tax the income generated. Because of the growth of electronic commerce, new e-business models (including digital marketplaces, online catalogs, virtual communities, subscription-based information services, online auctions, and portals) have emerged. Each allows taxpayers to conduct business and generate income in a country with little or no physical presence in that country. The separation of assets and activities from the source of the income represents a significant departure from historic business models. This change creates new tax planning challenges and opportunities.

3.8 Impact on Prices

Electronic commerce is widely expected to improve efficiency due to reduced transaction and search costs, increased competition and more streamlined business processes. Lower search costs may also lead to Internet consumers being more sensitive to price changes. By reducing search costs and increasing the flow of information, e-commerce might effectively shift power from producers to consumers and make it harder for firms to maintain higher prices. However, empirical evidence does not support this claim in all cases. Brynjolfsson and Smith found that average prices on certain items in a particular industry sold through the Internet were lower than their equivalent purchased through traditional retailers. However, in certain cases prices of goods sold through the Internet were higher than those charged by traditional retailers. Brynjolfsson and Smith justified this phenomenon by arguing that certain reductions in cost are offset by higher overhead costs elsewhere. They also indicate that increases or decreases in price depend on the size of the market (Brynjolfsson et al., 2003).

4. Conclusion

Competition in the digital economy. Competition in online markets is very intense due to the increased power of buyers, the ability to find the lowest price, and the ease of switching to another vendor. Global competition has increased as well.

The impact of e-markets on organizations. All functional areas of an organization are affected by e-markets. Broadly, e-markets improve direct marketing and transform and redefine organizations. Direct marketing (manufacturers to customers) and one-to-one marketing and advertising are becoming the norm, and mass customization and personalization are taking off. Production is moving to a build-to-order model, changing supply chain relationships and reducing cycle time. Virtual manufacturing is also on the rise. Financial systems are becoming more efficient as they become networked with other business functions, and the human resources activities of recruiting, evaluation, and training are being managed more efficiently due to employees' interactions with machines.

REFERENCES

- Bendoly, E., & Kaefer, F. 2004. Business technology complementarities: impacts of the presence and strategic timing of ERP on B2B e-commerce technology efficiencies. *Omega*, 32(5), 395-405.
- Boateng, R., Heeks, R., Molla, A., & Hinson, R. 2008. E-commerce and socio-economic development: conceptualizing the link. *Internet Research*, 18(5), 562-594.
- Brynjolfsson, E., Hu, Y., & Smith, M. D. 2003. Consumer surplus in the digital economy: Estimating the value of increased product variety at online booksellers. *Management Science*, 49(11), 1580-1596.
- Coppel, J. 2000. E-commerce: impacts and policy challenges (No. 252). OECD Publishing.
- Drew, S. 2003. Strategic uses of e-commerce by SMEs in the east of England. *European Management Journal*, 21(1), 79-88.
- Falk, M., & Hagsten, E. 2015. E-commerce trends and impacts across Europe. *International Journal of Production Economics*, 170, 357-369.
- Gunasekaran, A., Marri, H. B., McGaughey, R. E., & Nebhwani, M. D. 2002. E-commerce and its impact on operations management. *International journal of production economics*, 75(1-2), 185-197.
- Hong, W., & Zhu, K. 2006. Migrating to internet-based e-commerce: Factors affecting e-commerce adoption and migration at the firm level. *Information & Management*, 43(2), 204-221.
- Litan, R. E., & Rivlin, A. M. 2001. Projecting the economic impact of the Internet. *American Economic Review*, 91(2), 313-317.
- Ramanathan, R., Ramanathan, U., & Hsiao, H. L. 2012. The impact of e-commerce on Taiwanese SMEs: Marketing and operations effects. *International Journal of Production Economics*, 140(2), 934-943.
- Sharma, S. K., & Gupta, J. N. 2003. Socio-economic influences of e-commerce adoption. *Journal of Global Information Technology Management*, 6(3), 3-21.
- Steinfeld, C., & Whitten, P. 1999. Community level socio-economic impacts of electronic commerce. *Journal of Computer-Mediated Communication*, 5(2), JCMC524.
- Terzi, N. 2011. The impact of e-commerce on international trade and employment. *Procedia-Social and Behavioral Sciences*, 24, 745-753.

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