

Future of Electronic Commerce

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Abstract: This paper tries to assess quantitatively the role of electronic commerce in economic activity and in trade and tariff revenue collection. The share of value added that potentially lends itself to electronic trade represents around 30 percent of GDP, most importantly distribution, finance and business services. Electronic commerce is also likely to boost trade in many services sectors significantly. Despite the growing importance of electronic commerce for economic activity and trade, tariff revenue loss from electronic commerce is likely to be minimal. Trade in potentially digitizable media goods (such as music, software or books) which currently faces a tariff in some countries represents less than one percent of total world trade. The revenue collected on these products amounts to less than one percent of total tariff revenue in most countries. Even if some of this trade moved "online", tariff revenue loss would be only a very small share of tariff revenue.

Keywords: Electronic commerce, international trade, services trade, tariffs, tariff revenue, technological change

I. INTRODUCTION

[1][2] Electronic commerce is burgeoning as a means of doing business and shows every sign of continuing to expand at a rapid rate. The rise of this new medium is attracting increasing attention in policy circles. Nevertheless, a lack of adequate data on the magnitude and relevance of electronic supply has made policy-making decisions all the more difficult. This paper attempts to shed further light on e-commerce and its role in trade and economic activity more generally. Electronic commerce can be divided into three stages: first, the pre-purchase stage including advertising and information-seeking; second, the purchase stage, including purchase and payment; and third, the delivery stage. In principle, all types of products can be advertised and purchased over electronic networks. The potential for electronic delivery, however, is more limited. It requires that a final product can be presented as digitalized information and transmitted electronically, typically over the Internet. Many services can be supplied as digitalized information, including financial transactions or legal advice. Some information and entertainment products typically characterized as goods, such as books, software, music and videos embody digitized information that can also be supplied electronically over the Internet. Although all three aspects or stages of electronic commerce defined here may have certain trade policy implications, our focus is primarily upon the electronic supply of final products, or in other words, on the third stage. [3][4] Electronic commerce or e-commerce is a term for any type of business, or commercial transaction, that involves the transfer of information across the Internet. It covers a range of different types of businesses, from consumer based retail sites, through auction or music sites, to business exchanges trading goods and services between corporations. It is currently one of the most important aspects of the Internet to emerge. E-commerce allows consumers to electronically exchange goods and services with no barriers of time or distance. Electronic commerce has expanded rapidly over the past five years and is predicted to continue at this rate, or even accelerate. In the near future the boundaries between "conventional" and "electronic" commerce will become increasingly blurred as more and more businesses move sections of their operations onto the Internet.

II. THE BENEFITS OF ECOMMERCE

[5][6] There is a reason why eCommerce has demonstrated such explosive growth in the past couple of years. Indeed, with the internet becoming an essential requirement of everyday life, businesses are learning to take advantage of the numerous benefits of eCommerce, the most notable of which include:

- **Global market.** A physical store will always be limited by a geographical area it can serve. An online store, or any other type of eCommerce business for that matter, has the whole world as its market. Going from a local customer base to a global market at no additional cost is really one of the greatest advantages of TRADING ONLINE.
- **Around-the-clock availability.** Another great benefit of running an online business is that it is always open. For a merchant, it's a dramatic increase in sales opportunities; for a customer, it's a convenient and immediately available option. Unrestricted by the working hours, eCommerce businesses can serve customers 24/7/365.
- **Reduced costs.** eCommerce businesses benefit from significantly lower running costs. As there's no need to hire sales staff or maintain a physical storefront, the major eCommerce costs go to warehousing and product storage. And those running a dropshipping business enjoy even lower upfront INVESTMENT requirements. As merchants are able to save on operational costs, they can offer better deals and discounts to their customers.
- **Inventory management.** eCommerce businesses can automate their inventory management by using electronic tools to accelerate ordering, delivery and payment procedures. It's saving businesses billions in operational and inventory costs.
- **Targeted marketing.** With access to such a wealth of customer data and an opportunity to keep an eye on customer buying habits as well as the emerging industry trends, eCommerce businesses can stay agile and shape their marketing efforts to provide a better-tailored experience and find more new customers. Just consider for a moment that you have a chance to address thousands of your customers by their first name; that is something already.
- **Serving niche markets.** Running a niche brick-and-mortar business is extremely difficult. There's almost no chance of scaling it unless a niche product becomes mainstream. By tapping into a global market, on the other hand, eCommerce retailers can build a highly profitable niche business without any further INVESTMENT. Using online search capabilities, customers from any corner of the world can find and purchase your products.

- **Working from anywhere.** Often, running an eCommerce business means that you don't need to sit in an office from 9 to 5 or suffer through a commute day-in and day-out. A laptop and a good internet connection is all it takes to manage your business from anywhere in the world.

III. THE IMPORTANCE OF ELECTRONIC COMMERCE FOR ECONOMIC ACTIVITY

How significant might electronic commerce become in terms of overall economic activity, and which are the sectors in which the greatest impact is likely to be felt? We can assess the potential importance of Internet-based electronic commerce from different angles. We can analyse what share of value-added in an economy is likely to be directly or at least strongly affected by growing electronic commerce, and especially the Internet. A similar analysis is possible with respect to intermediate inputs and final demand. From this, we can obtain a crude picture of the overall effect of electronic commerce on the economy, and which sectors are going to be most strongly affected. It should be emphasized at the outset that an analysis of this nature rests on a number of assumptions and must be treated as partly speculative. Communication services will probably be affected most strongly through the emergence of Internet telephony and other Internet services such as e-mail, video conferencing etc., as these complement or replace traditional mail or telecommunication services. [7][8] Wholesale and retail trade will be affected by both the Internet as a new medium of exchange and the use of the Internet to rationalize logistics and other overhead expenses in these sectors. E-commerce will impinge upon some of the functions of wholesalers and retailers by connecting producers and consumers directly. Thus, they are likely to adopt new distribution methods to avoid being bypassed as a result of the information technology revolution (for example providing web-portals and thus becoming "metamediaries"¹). Electronic commerce is also likely to transform the way many financial and business services are provided, including accounting, computing and advertising. On the other hand, some business services, such as doctors' visits, may not be much affected. Social and community services, including the provision of medical services and education will be affected to a degree, but probably not as much as a number of other sectors. Personal services such as household help, or government services such as primary education are unlikely to be much affected by electronic commerce whereas university education, tax collection etc. can move "online" to a greater degree.

Finally, one can estimate the share of electronic commerce-related sectors in total final demand. Here, we approach the question of the economic importance of electronic commerce from the consumption side of GDP as opposed to the production side presented in Table 1. In the U.K., one quarter of final demand is in services sectors which are likely to be transformed by electronic commerce (see the last column of Appendix table 1). This number is almost identical to the percentage of value-added affected by electronic commerce as presented in Table 1. In other words, in the case of the U.K., estimations of the economic importance of electronic commerce yield very similar results from the consumption and production side.

IV. TRADE IN DIGITIZABLE MEDIA PRODUCTS

[9] [10] Considering that electronic commerce will play an important role in transforming large shares of the economy, it is worthwhile discussing how trade is likely to be affected by electronic commerce. Electronic commerce will probably have most impact on two types of products. First, a number of products which traditionally have been delivered as "goods" can now be sent across networks in digital form. Second, electronic commerce will strongly affect trade in services. The former category of products is basically software and media products, and includes film, various types of printed material, video games and various recorded information on carrier media such as tapes, CDs, CD-ROMs and diskettes.

How to start an eCommerce business

There is a logical order in how you would go about building an eCommerce business. Although setting up an actual online store would probably take less than a day, researching, building, launching and growing a profitable eCommerce business is a multi-layered process involving a number of steps and decisions[11][12].

- **Choosing and sourcing a product.**
The first step to starting an eCommerce business is deciding what products you're going to sell. Finding can be hard work, so be prepared to do some serious digging and thinking. It's essential that you choose products with healthy margins that will allow you to turn a profit and scale the business in the future. Once you know what you want to sell, you'll need to decide how and where you're going to source the products. The four main methods of sourcing products and inventory are making, manufacturing, wholesale and dropshipping.
- **Conducting research and planning ahead.**
Your product idea will dictate which aspects of the market you need to research, but some of the most important areas to look into will be your competition, pricing strategy, and your unique value proposition. At this point, it is also a good idea to draft a business plan that will help you visualize your growth strategy and identify any potential threats or obstacles.
- **Getting your brand right.**
Now that you have a promising product idea and a clear overview of the market, it's time to start thinking about the key elements of your store, such as your brand name, domain name, brand guidelines, and your logo. Getting your brand right from the start can help accelerate the growth and conquer the hearts of potential customers. Before turning your attention to building the store, you should spend some time studying the basics of SEO, so that your business gets off to a good start.
- **Deciding how you will sell.** The actual setting up of your online shop can be achieved in two ways:
 1. **You can build an eCommerce store from scratch** – this means either developing it yourself, or hiring a freelancer/agency to do it for you. It can take longer and cost more, but building a custom online store will guarantee 100% customization and give you the power to make all the decisions.

2. **You can use an off-the-shelf eCommerce solution** like Shopify, which makes building an online store a quick and easy process. However, it will also mean less customization, as you will need to choose from an existing pool of themes and tools provided by the platform. If you opt to run a dropshipping business, eCommerce solutions like Oberlo will allow you to get the store off the ground and start selling in as little as few hours.
 - **Before launching.**
At this stage, you'll be itching to get the store out into the World Wide Web. However, make sure you're well prepared to measure the success of your launch – defining your key performance indicators upfront will help you track your progress and performance and fix any issues as they emerge. Other important things to take care of include setting up your social media profiles, getting the email marketing ready, installing Google Analytics, doing keyword research, defining your shipping strategy and finalizing the launch promotion plan. Yes, that's a lot of work, but a good start is half the job done. When you complete the checklist, try running your store through the Shopify store grader to catch errors if there are any.
 - **After launching.**
Welcome to the grind! This is where the real work begins. Having launched your online store, you should immediately move on to the promotion phase. Marketing your store and optimizing conversions will be your daily bread and butter from now on. You should also experiment with regularly expanding or refreshing your inventory. It is a particularly easy thing to do for dropshippers, as they can import new dropshipping products in minutes, but it should remain a priority even if you're manufacturing or making the products yourself. Staying ahead of the curve will take some testing.

V. ELECTRONIC SERVICES TRADE

Electronic delivery already plays an important economic and trade role in many services sectors. It has been crucial for the development of cross-border trade in services. Furthermore, where the supply of certain services across borders seemed unfeasible, such as in health related services, e-commerce has overturned this conception. E-commerce has led to the development of new forms of supply, such as Telehealth. Overall, the supply of services has been deeply modified by the information technology revolution. Legal advice is given by telephone, news services are transmitted by fax, payments are settled via electronic networks, not to mention that telephone, fax, etc. constitute communication services. Communication services, computer and information services, and a number of financial services and insurance services, as well as other business services are frequently conducted over telecommunication networks. Cross-border trade in these sectors amounted to about US\$ 370 billion in 1995. This is equivalent to 30 per cent of world services trade, or 6 per cent of total world trade, and it is much more important than trade in the digitizable media products discussed above.

The most important services sector for cross-border trade is "other business services". with world-wide trade worth over US\$ 260 billion. This includes many services from accounting to engineering services, and it is unfortunate that a more detailed break-down is not available. However, services trade in communications, finance, etc. is not negligible either, at US\$ 100 billion. The most important traders are France, Germany, Italy, Japan, the U.K. and the United States amongst industrial countries. China, Korea, Singapore and a number of other developing and transition economies, however, also report significant figures for this type of services trade.

We can expect rapid growth in cross-border services trade as telecommunications costs continue to decline and Internet-based trade becomes more prominent. Electronic commerce over the Internet is much more versatile than the other electronic media, as it allows interactive communication with voice, data and image transmissions and much more. Internet data transmission is also much more efficient than via conventional telephone lines, which is likely to reduce transmission costs. This will boost trade in services already conducted over telecommunication networks and it will also facilitate trade in new services and in services which were only traded in physical form before, as has been previously mentioned. Stock trading, automatic downloading of databanks, university courses, and medical diagnosis of x-rays are just examples of what is already done or will soon probably be done on the Internet[13][14].

VI. TRADE-OPENNESS IN ELECTRONIC COMMERCE-RELATED SERVICES

The development of electronic commerce could change this picture as many services will become tradeable more easily. Cross-border trade (exports plus imports) for all service sectors is close to one fifth of value added. Trade-openness in services is comparatively high in the small service-oriented economies such as the Czech Republic and the Netherlands.

Services trade, according to the WTO definition, also includes sales by companies' foreign affiliates. This is also sometimes referred to as establishment trade or "mode 3" trade under GATS. Affiliate trade data are very scarce and are often not directly comparable with balance-of-payments and national accounts data. The only country that provides relatively comprehensive data is the United States.

VII. GROWTH PROSPECTS IN ELECTRONIC COMMERCE-RELATED SERVICES TRADE

As previously noted, trade in digitizable media products has grown at a rate 1.5 times faster than total trade. Similar trends can be observed in relation to output and trade in electronic commerce-related service sectors. Output in communication services grew at two to six times the rate of overall economic output in Australia, France and the United States during the first half of the 1990s (OECD, 1997). Other relevant service sectors have also grown at above-average rates. Only financial and insurance services show below-average growth. This could be due to outsourcing (ATMs instead of clerks) or due to the use of deflators which do not fully take into account the price decline in many financial services in recent years. The well-documented rapid growth of international financial transactions in recent years was also due to the spread of electronic payments systems and other means of electronic commerce.

Another way of assessing the growth dynamics of services trade is through foreign direct investment (FDI) flows. FDI reflects the establishment of a foreign commercial presence and leads to affiliate trade. European Union (EU) data on FDI flows in electronic commerce-related service sectors shows strong growth rates in recent years[15][16].

Ecommerce Statistics

- By 2020, it is estimated that global ecommerce sales will reach \$4.058 trillion, which makes ecommerce a growing and profitable industry to be in.
- By 2019, the US expects to have 224 million online shoppers, making the US a large audience base to market your online store to.
- By 2019, the US is estimated to have 162.8 million mobile shoppers. As a result, store owners need to ensure that their websites and ads are mobile-optimized to reach their target audience. According to Business Insider, men (22%) are also considered more likely to buy a product via a mobile device than women (18%).
- Women tend to shop online more frequently than men. For every \$10 spent online, women are spending \$6 while men spend \$4.
- Millennials, ages 18-34, tend to spend approximately \$2000 online each year making it the generation that does the most online shopping.

Common Types of Ecommerce

- **B2B:** The B2B model, business to business, is when a business is selling to other businesses. Alibaba is an example of a B2B business, as their suppliers sell to other businesses. Alibaba prices are extremely low as they're wholesale prices to allow businesses to make a profit off of their products.
- **B2C:** The B2C model, business to consumer, involves businesses selling to consumers. If you decide to open your own online store, you'll likely be selling to customers instead of businesses. Amazon, Walmart, and Apple are examples of B2C businesses.
- **C2C:** The C2C model, consumer to consumer, is when consumers are selling to other consumers. Examples of a C2C business model are eBay, Craigslist and Kijiji. Many of the sellers on those sites aren't businesses but average consumers selling products they own whether second-hand or new.

Ecommerce Platforms

An ecommerce platform is a software solution that allows businesses to create online stores. The four most popular ecommerce platforms are Shopify, WooCommerce, BigCommerce and Magento.

Shopify was founded in 2004 by Tobias Lutke, Daniel Weinand and Scott Lake. In 2016, Shopify had 377,500 merchants using their platform who made a total of \$15.4 billion in gross revenue. Their platform allows store owners to install apps ranging from Oberlo's AliExpress dropshipping app to Hurrify's Countdown Timer app. Shopify's platform is considered the best ecommerce platform with a 10/10 rating.

WooCommerce is an ecommerce platform made for WordPress stores. It was officially launched on September 27, 2011 by creators Mike Jolley and James Koster. Their official website claims that it 'powers over 28% of all online stores.'

WooCommerce is currently being used by over 380,000 online store owners.

In 2009, BigCommerce was founded by programmers Eddie Machaalani and Mitchell Harper who happened to meet in a chat room. BigCommerce users have generated \$9 billion in sales. There are currently over 95,000 stores using the BigCommerce platform.

Magento is an open-source platform created by Varien, Inc. It was founded March 31, 2008.

Popular Ecommerce Sites

- **Amazon:** Amazon was founded by Jeff Bezos. According to [Alexa](#), Amazon is currently ranked the 9th most popular website worldwide, and 4th in the United States.
- **Taobao:** Taobao was founded by Jack Ma. Globally, it's ranked 11. In China, it's ranked 5th.
- **Tmall:** Tmall was also founded by Jack Ma. It has a global ranking of 15 and a rank of 4 in China.
- **ALIEXPRESS** AliExpress was founded by Jack Ma. It's currently ranked 40th in the world and 9th in Russia according to Alexa.
- **eBay:** eBay was founded by Pierre Omidyar. On Alexa, the ecommerce site is ranked 33 globally, and 9th in the US.
- **Flipkart:** Flipkart was founded by Binny Bansal and Sachin Bansal. Alexa has it ranked 147 globally and 9th in India.

VIII. CONCLUSION

E-commerce already plays an important part in economic activity and its relevance will continue to grow. According to our estimates, the share of value added that potentially lends itself to electronic trade represents around 30% of GDP in services sectors. Three quarters of this is attributed to distribution, finance and business services. Although electronic provision will primarily affect service sectors, it will also play an important role in certain manufacturing sectors such as the pharmaceutical, telecom and clothing industries. Most probably, e-commerce will entail productivity gains and price reductions in these sectors. As far as the delivery of products is concerned, the impact of electronic commerce will fall mainly on trade in services rather than trade in goods. Trade of potentially digitizable media goods currently represents less than 1 per cent of total world trade. Of this, 60 per cent corresponds to printed matter, recorded tapes, CDs and packaged software. Nevertheless, trade in such products is growing rapidly, at 1.5 times the growth of world trade. In the short term, this trend is likely to continue until electronic trade in these products takes off. As access to Internet becomes more available world-wide and band-width of phone lines expand, the cheaper prices of these products offered through the Web will cause a substitution effect between the physical and electronic trade of digitizable media products. The extent of this will depend on their eventual degree of substitutability. In the long term, one might expect a stagnation, and even a decline, in the physical trade of these products. E-commerce will affect services trade more strongly than trade in goods. If we take the data available for cross-border supply of services, the mode of provision where electronic trade takes place, we observe that 30 per cent of world services trade currently takes place through this mode of supply. This represents 6 per cent of total world trade. However, trade in services is significantly less than trade in goods. Even if we include affiliate trade, that is, the production of foreign service suppliers in the territories of another Member, as we have done for the United States, trade openness in electronic commerce relevant sectors remains limited. This will gradually change with the adoption and development of e-commerce techniques by service suppliers world-wide.

IX. FUTURE OF ECOMMERCE

The ecommerce industry is expected to continue growing. According to N Channel, in the US, brick and mortar retailers generate \$3.9 trillion in sales while ecommerce generates \$294 billion. Over time, ecommerce will continue to take away market share from brick and mortar retailers as it has been doing over the past few years. This is good news for those looking to start online stores as sales will only continue to go up, though competition will also increase in the space. Ecommerce will also likely evolve over the years creating a more augmented or virtual reality experience for shoppers. Stores may eventually include features to help customers 'virtually' try on clothing to ensure it fits their shape while allowing them to see what it would look like on. Shoppers may be able to 'try' on makeup using their laptop or phone's camera.

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