

Electronic Commerce Policy Making in Greece

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Abstract

Although electronic commerce has been emerged as a global phenomenon, several countries lag behind in terms of Internet and electronic commerce use. Indeed, the vast majority of the world population does not have access to the Internet and lacks the technological skills and the knowledge to do so. The particularities of non-technologically advanced countries make policy making for electronic commerce, that is already a challenging task, very difficult. In this paper we examine the case of Greece as an example of a country that currently presents low levels of electronic commerce adoption but has the potential to grow fast. The policy measures that are currently implemented in the country with the expectation to enable e-commerce growth in the near future are presented in detail. We argue that the example of Greece can be interesting for other countries in the region that lack the needed technical infrastructure but are willing to invest in new technologies and compete at a global level.

1. Introduction

According to Rogers (1995), innovation is 'an idea, practice, or object that is perceived as new by an individual or other unit of adoption'. Electronic commerce is based on ideas that offer new practices in the way people around the globe communicate, exchange ideas and do business. Electronic commerce, can therefore

be viewed as a kind of technology and business innovation since it introduces new methods in:

- communications (e.g. Chellappa et al., 1996)
- business transactions (e.g. Bryntse, 1998; Crocker, 1996; Currie, 1999; de Kare-Silver, 1998; Henning, 1998)
- market structure (e.g. Giaglis et al., 1999)
- education (e.g. Daniel, 1999; Murison-Bowie, 1999)
- work (e.g. Doukidis et al., 1998; HCWD, 2000)

There are several advantages related to the adoption of electronic commerce, such as fast and easy access to information for individuals and cost reduction and expansion of customer base for companies (e.g. Kosiur 1997, Hoffman et al. 1996). Nevertheless, there is increasing concern about the negative consequences that the use of Internet and electronic commerce may have specially in widening of what is called 'digital divide'. There is a lot of debate about the cultural, gender and race gap in the use of Internet and the proportion of users with lower education and income (Hoffman and Novak, 1999). The penetration of the Internet and electronic commerce in developing countries which lag far behind North America and Europe is also an outstanding issue in the existence of 'haves' and 'have-nots' in cyberspace, (e.g. Bhatnagar, 1997; Blanning et al., 1997; Clark and Lai, 1998; Kim and Hong, 1997). Developed countries have more access to information that is less expensive, easier and faster while less technologically advanced regions have to deal with problems of inadequate infrastructure, lack of awareness and lack of an appropriate legal framework. In this paper we examine the case of Greece as an example of a country where the adoption of electronic commerce is relatively low.

The paper is structured as follows. First we examine the current situation of electronic commerce in Greece in terms of Internet use and engagement to electronic commerce by businesses and the government. In section 3 we describe the country's electronic commerce policy and the current results from its implementation. In section 4 we present some future prospects for electronic commerce in Greece. In Section 5 we examine the lessons that can be learned from the Greek experience about electronic commerce policy making. We believe that these lessons can be useful for countries that lack the necessary technical infrastructure but have the determination to overcome the existing barriers and compete at a global level.

2. The current situation of electronic commerce in Greece

Greece is the only member of the European Union that belongs geographically to South-Eastern Europe, one of the less technologically advanced European regions. Historical changes in borders, political and economical systems left the area in a less advanced position than other European countries. Following the recent conflict in former Yugoslavia, there is still political unrest in the area. In order to overcome this situation, several efforts have started that are aimed to assist the region to re-form at

a social economic and political level. The stability pact, for example, is an initiative made by the European Union and adopted in Cologne on the 10th of June 1999 (SCSP, 1999) in order to: “achieve the objective of lasting peace, prosperity and stability for South Eastern Europe”. Greece plays an important role in the region; as an EU member with political and economical stability, it can act as an exemplar for good practice and as a 'change agent' (Rogers, 1995 p. 166) for its neighbouring countries. However, the description in this section shows that Greece is also a country that with scope for improvement regarding its current use of electronic commerce.

2.1 Internet statistics

The statistics about Internet and electronic commerce adoption in Greece are not very positive but they show fast and steady growth. Specifically, according to EU there were 7 Internet users per 100 inhabitants by the end of 1999 (EU average: 19), which shows an increase of 55% since the end of 1998 (EU average: 51%). Additionally, 32% of all companies had Internet access by the end of 1999 (EU average: 63%), which represents an increase of 28% since the end of 1998 (EU average: 27%). According to OECD there were 69 secure servers per 6 million inhabitants in March 2000 and 70 thousand Internet host per 7 thousand inhabitants in September 1999.

Furthermore, according to a survey contacted by IDC (IDC, 2000) concerning the "European Internet" in 2000, in 1999 there were approximately 680,000 (200,000 of which with dial up connections) Internet users in Greece. Internet shopping is not very popular at the moment; however, a considerable cluster of users (40%) has or is willing to undertake on line shopping activities in the next year while only 6% of Internet users is willing to use credit cards for on line shopping. A survey conducted by ALCO (a Greek consumer research company) at the end of 1999 in 500 households (visitors of super-markets) provides valuable input for consumer requirements with respect to electronic shopping. Most required features for electronic stores are product variety, lower prices and 24 hours service while most preferred intensive motives include special discount and sales promotions. The survey also indicates that consumers rank extended product information, quick access, comparative shopping and additional product images as the most important features of an electronic store. Greek Internet users are already using the Internet in order to collect information regarding multiple topics including product and market content (30%). Additionally, 50% of the adult population own a mobile phone and the fact that these users are quite advanced in using added values services for remote information retrieval of the cellular networks is a positive indication for the increased use of ICTs in the future.

2.2 E-business and e-government

Overall, there are more than 7,500 corporate sites currently operating in the Greek web market. The majority of them is hosted and operated by Internet Service Providers (ISPs) or technology providers and mainly promote the company profile (static pages). Among them, there is a significant number of companies (mainly medium to large corporations) that have invested in establishing infrastructure for their web presence and provide periodically updated content and services.

The first scientific survey on the adoption of electronic commerce from big companies took place in February-April 2000 at the Athens University Economics and Business (ELTRUN, 2001). Top managers from 240 Greek companies that belong to the top 2000 companies of the country participated to the survey. Some of the findings of the research are the following:

- 38% of the participant companies use electronic commerce practices, 12.5% integrated to their business and the rest 25.5% are opportunistic. 47% of the companies are planning to adopt electronic commerce while the 33% of those are planning to do so within the next year.
- There are sectors in the Greek market that seem to be much more advanced than the average (38%) in the adoption of electronic commerce. Specifically, the IT sector uses integrated electronic commerce practices by 22% (against 12.5% of the average) and 58% by total (integrated and opportunistic use).
- The market sectors, according to the survey, that seem to be the pioneers for electronic commerce adoption for the next years are retailing, financial, mass media, mobile telephony.

Finally, as far as the business-to-public administrator electronic commerce is concerned, the ministry of finance has taken an interesting initiative. Specifically, the TAXISnet system has been established, giving Greek taxpayers the possibility to submit their VAT declarations and their debts electronically to the ministry of Finance using phone or Internet banking. This system is the result of the co-operation between the ministry and the Hellenic bank association. The citizens that will participate to the programme are not obliged to pay any additional fees for its use. Until now 52,000 people have expressed their intention to use it.

3. Electronic commerce policy making in the country

The importance in the exploitation of information technology for the economic growth of the country has been recognized by the Greek government. According to the policy document “Greece in the information society” (The Greek government, 1999) the strategy for the Information Society in Greece is based on certain basic principles:

- **Innovation and entrepreneurship.** The Information Society will develop based on market mechanisms and rules, and the institutional and regulatory framework

should facilitate the development of new entrepreneurial initiatives and of a culture of innovation.

- **Democracy and freedom.** The Information Society should strengthen democratic processes and safeguard the rights of citizens.
- **Equal opportunities and solidarity.** The Information Society should enable all citizens to have access to the opportunities, the knowledge and the markets opened up by the new technologies, and should show solidarity towards those who fail to become integrated.

A number of government authorities co-operate in order to implement an effective strategy for the promotion of the information society and electronic commerce in the country. A concentrated effort in this direction has started since 1996 with the participation of agents such as the General Secretariat for Research and Technology of the Ministry of Development. In this framework a number of electronic commerce projects included in the business industrial program of the ministry of development (sectorial EDI projects, exemplary electronic commerce projects and electronic commerce centres) took place from 1996 until today. This initiative is the most organised for the Greek standards, and 4 million GRD has been invested for the funding of 1000 Greek companies.

The result of those activities has been a continuous growth in the Greek market of electronic commerce. Some relevant indicators include the high percentage of mobile phone users, and the expression of interest from companies to use the Internet as a tool for gaining competitive advantage or even setting up new virtual organisations according to international standards.

Apart from government “per se” there are a number of professional associations in the country that make a considerable effort to facilitate the Greek enterprises to successfully invest in electronic commerce. Some of these initiatives are:

- The development of a "National Electronic commerce infrastructure" by the National Association of Greek Trade, which will give the trading enterprises the opportunity to conduct business using electronic means, such as the search of business partners in Greece and abroad, or even the search and acquisition of employees.
- The initiatives of the Athens Chamber of Commerce and Industry for the setting of a secure environment for conducting electronic transactions in Greece (clearing centre, trusted third part) and
- The creation of a local electronic marketplace for the trading enterprises in Thessaloniki and other similar initiatives from other typical trading chamber organisations.

Finally, the co-operation of the government with professional associations and other key players in the market such as universities and telecommunication authorities has proved to be very effective. For example the Greek ministry of development with the

co-operation of the Hellenic Organization of Small and Medium Size Enterprises and Handicraft (EOMMEX) has started an initiative called "go digital" within the framework of the "Information society" program of the European Union. The objective of "go digital" is the financial support of small enterprises in order for them to get familiarised with the Internet and digital economy in general. The companies that are participating can get partially funded for equipment purchasing while they can get professional training about the use of the Internet. The programme has a budget of 31.5 billion GRD and duration of 3 years. Until now, 11,000 companies from all over Greece have shown an interest in participating to the programme.

4. Future prospects of electronic commerce in Greece

In the last few years the Greek market of electronic commerce is in continuous growth. Although the number of enterprises that use traditional electronic commerce technologies, mainly for business-to-business communications (i.e. traditional EDI) has stabilized at relatively low levels, there is a continuously growing interest on business-to-consumer applications and on-line transactions of products and services.

The continuous changes in the IT industry have positively affected the electronic commerce market. Acquisitions and strategic alliances that are frequently announced drive the modification of the market structure proving its dynamic nature. At the same time, more and more IT companies announce their intentions to develop and offer electronic commerce services. Thus they create an image of exceeding supply in relation to the number of companies using IT technologies in Greece. Additionally, there are a growing number of companies that participate and take advantage of the government's subsidies for new technologies and use e-government systems for their communication with the public authorities.

These indicators show that the Greek business community has realised the strategic opportunity for economic growth that electronic commerce can offer to the country. What is needed is co-ordinated action between the government and the business community for the design and implementation of a long-term national electronic commerce strategy.

5. Lessons about electronic commerce policy making from the Greek experience

Since 1996, when the application of an electronic commerce policy started in Greece, there are some concrete results in terms of Internet and electronic commerce use, while the prospects for future adoption and use seem to be even more optimistic.

In the next paragraphs we describe some useful lessons from the Greek experience about electronic commerce policy making.

- Electronic commerce helps communications and strengthens co-operation. Successful initiatives always the result of fruitful coordination of the public and the private sector. It is important for policy makers to take into consideration all relevant agents and promote cooperation.
- Application of standards and cooperation at an international level is an important element for a successful electronic commerce policy. The membership of Greece in the European Union is in that sense positive since it helps policy makers in the country follow directives adopted at an international level and incorporating the expertise of multiple national constituencies.
- It is important for policy makers at the highest level to take into consideration ideas and thoughts of stakeholders at lower levels of decision making. The knowledge of the market and companies needs that local multipliers such as professional bodies and associations have can be very useful for designing an effective electronic commerce policy.
- The early electronic commerce experience made in Western Europe and the U.S can benefit countries that are now at an initial stage of electronic commerce adoption. It is important to learn from previous mistakes and best practices followed in order avoid the former and learn from the latter.

Summary

In this paper we considered electronic commerce as an innovation that can change radically the everyday life of the people around the globe. We examined the 'digital divide' as a negative consequence of electronic commerce for countries with less advanced technical and economic infrastructure. The case of Greece as an example of a country that belongs to a non-advanced technologically region such as the South Eastern Europe was presented. The present situation of electronic commerce in the country and the predictions for the future were presented extensively. The policy (with its advantages and disadvantages) that is followed was described as guidance for countries that have similar characteristics. Finally, some principals for the application of an effective policy in less advanced technologically counties were described.

References

- Bhatnagar, S. (1997). "Electronic commerce in India: The untapped potential." *Electronic Markets*, 7(2), 22-24.
- Blanning, R., Bui, T., and Tan, M. (1997). "National information infrastructure in Pacific Asia." *Decision Support Systems*, 21, 215-227.
- Bryntse, K. (1998). "EDI and Public Procurment: How EDI affects the working procedures of public procurment." *EDI and Data Networking in the Public Sector*, K. V. Andersen, ed., Kluwer Academic publishers, 199-221.

- Chellappa, R., Barua, A., and Whinston, A. (1996). "Looking beyond Internal Corporate Web Servers." *Readings in Electronic Commerce*, R. Kalakota and A. Whinston, eds., Addison-Wesley, 311-321.
- Clark, J., and Lai, V. (1998). "Internet comes to Morocco." *Communications of the ACM*, 41(2), 21-23.
- Crocker, D. (1996). "An Unaffiliated View of Internet Commerce." *Readings in Electronic Commerce*, R. Kalakota and A. Whinston, eds., Addison-Wesley, 3-27.
- Currie, W. "Meeting the challenges of Internet Commerce: Key issues and concerns." *5th International Conference of the Decision Sciences Institute (DSI '99)*, Athens, Greece.
- Daniel, J. (1999). "The rise of the mega-university." *Masters of the wired world*, A. Leer, ed., Financial Times Pitman Publishing, London, 333-342.
- de Kare-Silver, M. (1998). *e-shock The electronic shopping revolution: strategies for retailers and manufacturers*, Macmillan business.
- Doukidis, G., Poulymenakou, A., Terpsidis, I., Themisticleous, M., and Miliotis, P. (1998). "The Impact of the Development of Electronic Commerce on the Employment Situation in European Commerce", Athens University of Economics and Business, Athens.
- ELTRUN (2001) "E-business in the large enterprises" (In Greek) Athens 2001, Athens University of Economics and Business (<http://heltrun.aueb.gr>)
- Giaglis, G., Klein, S., and O'Keefe, R. "Disintermediation, reintermediation, or cybermediation? The future of intermediaries in electronic marketplaces." *12th Bled electronic commerce conference, 7-9 June 1999*, Bled, Slovenia.
- HCWD. (2000). "Work Trends survey, Nothing but Net: American workers and the Information Economy", Heldrich Center for Workforce Development.
- Henning, K. (1998). *The Digital Enterprise. How digitisation is redefining business*, Century Business Books.
- Hoffman, D., Novak, T., and Chatterjee, A. (1996). "Commercial scenarios for the Web: opportunities and challenges." *Readings in Electronic Commerce*, K. R. and W. A., eds., Addison-Wesley, 29-53.
- Hoffman, D., and Novak, T. (1999). "The evolution of the digital divide: Examining the relationship of race to Internet access and usage over time." *Understanding the Digital Economy: Data, Tools and Research*, Washington, USA.
- IDC. (2000). "European Internet 2000", IDC (www.idc.com).
- Kim, E., and Hong, P. (1997). "The government's role in diffusion of EC in Korea." *Electronic Markets*, 7(2), 6-8.
- Kosiur, D. (1997). *Understanding Electronic Commerce*, Microsoft press.
- Murison-Bowie, S. (1999). "Forms and functions of digital content in education." *Masters of the wired world*, A. Leer, ed., Financial Times Pitman Publishing, London, 142-151.
- Rogers, E. M. (1995). *Diffusion of innovations*, Free Press, New York.

SCSP (Special Co-ordinator of the Stability Pact for South Eastern Europe) (1999).
“Stability Pact for South Eastern Europe” Constitutional document Cologne,
10 June 1999 (www.stabilitypact.org)

The Greek Government (1999). “Greece in the information society. Strategy and
actions” Athens, February 1999 (<http://www.primeminister.gr>)