



Works cycle B

Task Force TF B2

“e-Marketplaces perspectives, the Government’s attitude”

Executive Summary

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1 Task Force B2 - B2B e-marketplaces

Within the context of the 2nd work cycle of the e-business forum of the Ministry of Development, Task Force B2 "e-Marketplaces: perspectives, the Government's attitude" was set up. The purpose of the specific task force was to deal with recording the Greek reality with regard to the e-Marketplaces, the respective international image and the existing trends, and submit proposals both to businesses that wish the development of e-Marketplaces, and to the government.

The action of the task force was coordinated by Ms. Aggeliki Poulimenakou (Athens University of Economics and Business) with the support of two rapporteurs (Messrs. Giorgos Dimitrakopoulos and Takis Limbereas). The task force core is made up of 10 persons representing various sectors (service providers, solution providers, and users).

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The members of the wider Task Force come from IT companies, banks, logistics companies and academic bodies. A name list is given in the Task Force webpage, at the forum’s website.

2 B2B e-Marketplaces in Greece

With regard to Greece, in the past years some e-marketplaces have been operating – two horizontal ones (business exchanges and cosmone), and some vertical ones. With regard to the vertical ones, the main sectors included in them at this time are hotel catering services (yassas), the retail sector (onianet and be4retail), and logistics (e-logistics). At the same time various new e-marketplaces are being created - mainly by specific business groups, which primarily meet their own business needs - in sectors such the construction sector and shipping. Most of these activities are at very early stages to give specific results.

Existing e-marketplaces in Greece were examined in depth aiming at recording the issues related to their operation and the design of new activities both for existing business structures, and the development of new applications or approaching new sectors. The conclusions reached in such meetings are presented in detail in this Task Force’s deliverable.

3 Future technological and business trends and possible developments

e-Business is at this time under way. Undoubtedly, the stage in which it is, is a transitional and ever changing one, hence it is characterized by a certain instability. However, there are sufficient indications about the future course of electronic B2B marketplaces, as well as of e-business in general, and it is on the basis of such indications and the development course evidenced thus far that estimates on future trends are made.

The trends presented in the Task Force report come from the largest and most reliable consultant companies worldwide, which are constantly following developments in the said sector.

In particular, most forecasts agree on the following: that the development of international e-commerce is very rapid. It is expected that the value of transactions shall increase from 90 bn dollars in 1998 to 4 trillion dollars in 2006. This increase is governed by an annual growth index of about 60%.

At the present time B2B transactions are the main electronic commercial transactions, representing over 70% of the total value of electronic transactions. Although a gradual increase of B2C transactions is anticipated, the continuous growth of B2B marketplaces shall retain the high percentage of transaction value that they hold today.

In examining the perspective of development by area, North America shall hold the highest transaction value until 2006. Although e-business shall develop faster in other developed areas, existing development trends in North America shall remain at high levels, resulting in a gap with regard to the other areas that will not be bridged.

Also, in terms of the trends in the wider sector of IT systems worldwide and for the current year, the main sectors that shall present changes shaping the e-business environment are as follows:

1. External trends

- the information technology industry shall continue being challenged facing accelerating work losses;
- priority shall be given to the security of personal data, know-how, systems and nations;
- consumers shall finally start using e-purchases and their number shall double until 2005.

2. Business behavior

- short-term focusing on cutting down costs shall lead to the shrinking of information system organizations in 2002;
- reliable suppliers shall gain more control, seeing that investors shall turn towards operating budgets;
- by 2004, businesses shall continue using software applications in customer relations management (CRM) as an important component of their business strategy.

3. Applications and technological trends

- during the year 2002, despite the shrinking of budgets, the operational infrastructure of information systems shall need to be proactive and implement initiatives;
- over 50% of mobile applications developed in the early 2002 shall be rendered obsolete by the end of the year;
- by 2004, e-services shall impose the development of new applications for e-B2B;
- during 2002, pioneering businesses will have managed to implement applications for the creation of innovative entrepreneurship methods.

It is very clear that all such trends shall affect, to a certain extent, the developments in the e-business sector and the course of e-B2B marketplaces in general.

At a technical level, the developments related to e-business and that shall have a direct effect on the development and operation of e-marketplaces, shall concern the following sectors:

Sales side applications:

- businesses with intense electronic activities prefer to procure (rather than deploy) the applications they shall be using;
- the XML language shall have a great impact on salespeople selling products through catalogs, because private catalog systems shall be abolished, seeing that businesses shall adopt open communication standards; the work of international entities (EAN, UCC, GCI etc.) towards the standardization of XML, is expected to give internationally accepted open architecture solutions;
- the technologies used for direct connection with ERP systems shall be widely available;
- the use of software for managing the transport of goods and calculating taxes, as well as these services shall increase in the near future;
- the focus of the software used for e-B2B shall shift from the present form of standard e-commerce platforms to a broader vision of customer relations management;
- marketing shall continue to mature, through the increase in advertising e-messages, the tailoring of e-portals, and through a more detailed trend review and analysis.

Purchase side applications:

- purchase (procurement) side applications shall be integrated into existing ERP systems; procurement applications shall be able to manage catalogs, the presentation and availability of products, and lastly shall make orders that shall be placed by the ERP system of the buying organization;
- with regard to the supply with software for the buying side, it will soon appear that companies shall be combining transactions, participation, and content based on platforms for buyers and on the catalog technology;
- as the number of potential Internet participants is increasing, there shall be a simultaneous increase in the use of pricing negotiation mechanisms; the specialized technology available at this time for the application of such mechanisms, as well as auction mechanisms, is anticipated to be integrated in the operation of business, as well as specialized commercial webpages;
- independent procurement applications providers shall provide integrated internal procedure solutions for a wide range of services; they shall assist to the integration and cooperation of such applications with existing Human Resources (HR) management, ERP and accounting software applications, and shall offer the possibility for system users management, the collection and processing of information.

Customer e-Service

- the installation of tools using video applications and cooperating with the switchboards of companies shall start; examples of such tools are videos for providing instructions to clients, as well as interactive applications for the interaction between customers and customer service departments; however, the applicability of such solutions shall be limited until the Internet infrastructure becomes capable of offering a broader bandwidth to the current speeds of user connections;
- Internet telephony shall be integrated in business applications as a normal tool; switchboards shall make intensive use of the Internet as an additional communication medium;
- the systems used for sending advertising e-messages shall be extended so as to be able to fully manage marketing campaigns, and shall improve with a view to be able to cooperate within a broader context with other existing and new electronic customer service applications;
- vertical electronic communities shall be developed, as is for instance a value chain with multiple participants, so that a salesperson shall be able to pass an e-Seminar to the product manufacturer concerning technical support.

Integration of business systems – ERP

- the biggest sellers of ERP systems shall continue to add to their product platforms functions relating to e-business;
- the use and operability of ERP systems by businesses that are already in possession of such systems shall be established, as a channel of cooperation with suppliers, distributors, and customers;
- infrequent users of business systems or of systems not requiring full operability of an ERP system, shall be using a Web Browser to access such systems, and this due to the fact that the Internet is cheaper (reduced software use licenses costs), less complex and more user-friendly, and it provides the possibility of interconnecting with many applications;
- new user-friendlier devices allowing access to the Internet shall become a bigger platform for the users of e-business ERP systems, as connection to the Internet may be achieved over the TV (interactive television), personal digital assistants (PDA), and in-vehicle devices.

Electronic Data Interchange - EDI

- EDI (Electronic Data Interchange) technologies shall continue to be integrated in Internet B2B applications; many new EDI application users shall start from the Internet with the sending of messages, especially in cases in which large companies using EDI to a great extent shall be promoting their smaller suppliers in their own EDI networks;
- the XML communication protocol shall play an important part in the transfer of EDI processes to the Internet, as well as in the creation of special industrial standards for e-business; specific industrial sectors or commercial communities, such as for instance the information systems industry or car spare parts distributors, shall create their own standards for defining the data and the form of messages for e-business transactions, shifting away from the limits of the traditional standard communication processes; the work performed within the context of the Global Commerce Initiative (GCI) - with the assistance of the appropriate entities - in combination with the pilot projects already underway, provide a first taste of future developments;
- the use of the XML protocol in new e-B2B applications shall increase dramatically; data export from applications platforms and tools with the use of XML shall be the commonest form of communication;
- EDI over the Internet, shall replace the already existing EDI message transfer infrastructure;
- the number of products providing variety in EDI messages transmission shall increase.

e-Payment technologies

- credit card transactions shall remain the principal way of payment, with a slight simultaneous increase in the use of e-checks;
- the SSL protocol shall remain the commonest protocol for secure connections and the exchange of financial information over the Internet;

- traders shall take action against the ever increasing e-fraud, seeking more advanced fraud detection techniques rather than switching to new transaction protocols;
- the appearance of e-bills in combination with direct charging, is most possible to become the commonest payment method in Europe;
- confidential businesses for the certification of services shall make their presence felt, while governments and businesses invest in more secure payment system infrastructures.

4 Conditions for the successful implementation of B2B marketplaces

two main factors for the implementation and operation of successful e-B2B marketplaces are the elaboration of an *complete business plan* and the configuration of strategic factors concerning the design of the development of an e-marketplace.

Fundamental areas affecting the creation of a B2B marketplace are:

- the changes and the impact of e-business marketplaces on the internal operation and relations of a business;
- the determining factors affecting the structure for the creation of an e-marketplace;
- the way in which the value of networks is determined and the understanding of the dynamic nature of independent parties involved in the e-marketplace;
- the considerations concerning the creation of mandatory services that shall be provided in order to retain the marketplace customers;
- possible income sources and the strategy for retaining income;
- pricing possibilities and the methodology used for meeting the needs of buyers and sellers.

Each one of these areas contains a number of success factors / criteria that must be understood and examined in depth before any decision is made on the implementation or no implementation of an e-B2B marketplace.

Summarizing, e-B2B marketplaces must be designed in such a way so that they require certain business practices, while adopting new ones. Specialists in each sector must get actively involved in the design, aiming to identify those practices considered problematic for various industrial sectors. The fundamental objective goal of e-marketplaces should be to change such problematic practices into well structured and effective procedures, through proposals adding value and developing ex-ante, as part of the strategy to be followed by the market. Nonetheless, there must be a sensitive approach to standard procedures and traditional business relations that constitute an established reality in each sector of the economy.

Examples of problems that have led to the development of e-marketplaces are:

- *large sectors of the economy*, such as the automobile industry, that wish to cut down their commercial transactions cost;
- *fragmented sectors* with many small buyers and sellers, where there is abundance in intermediaries or distributors leading to an increased price for end products;
- *sectors with an unpredictable supply or demand*, which require the liquidity that is characteristic of the transactions in a big market and the possibility for the dynamic adjustment of prices based on the supply and demand;
- *sectors involving financial commodities with low margins*;
- *sectors of consumables*, requiring the rapid and efficient liquidation of the market and a dynamic pricing that can change with time.

The structure of a complete business model referring to the development of a new e-marketplace and oriented towards a sector or sub-sector, is considered substantial when it includes all individual thematic fields representing the factors affecting the operation of the e-marketplace, as well as the full description of the implementation stages with references to the business model concerning the given sector, possible strategic collaborations with similar or collaborating sectors, etc.

A business plan is considered complete when it can demonstrate the viability of the whole enterprise, and this at a first stage concerns the development of the sector characteristics, the trends shaping the developments in the sector, the profiling of the e-marketplace customers, the picture of large markets, the profiling of suppliers, resellers, and the possible scenarios of developments in the sector. In addition, with regard to any reference to the distribution channels and the supply chain, as well as to any significant stage relating to the sector branching, it is important that the following be mentioned:

- the evolution strategies and competition pressures;
- the main procedures and activities;
- the risks relating to each part of the sector;
- intensity of information and communication at each part of the sector.

The Task Force deliverable includes a detailed suggested plan for the elaboration of a business plan.

5 Conclusions and proposals to the government

The main conclusions reached as a result of the Task Force processes and which relate to the operation and possible development of B2B e-Marketplaces in Greece, are divided into 5 main sections:

- conclusions concerning horizontal e-marketplaces;
- conclusions concerning vertical e-marketplaces;

- technological issues;
- business issues;
- funding issues.

IV. Horizontal e-marketplaces

The analysis of the business activities of existing horizontal e-marketplaces in Greece renders clear that to date their main participants are also their main customers, while the products traded relate mainly to MROs (Maintenance, Repair and Operations). The main target of such companies are principally large businesses with proceeds amounting to many million euros. The systems developed are buyer-centric, while the auctions offered (auctions and reverse auctions) are in many cases more effective than the classical b2b business transactions. A general conclusion appears to be that the most substantial difficulty faced in the development of e-marketplaces lies in the creation and maintenance of business communities.

V. Vertical / sectoral e-marketplaces

With regard to the vertical marketplaces operating in Greece, there are already several companies using the services provided, despite the fact that the total operation of e-marketplaces is still at an early stage to bring profits. Many users face their participation in e-Marketplaces as an initial pilot application. It also appears that in the Greek market it shall be difficult for more than one e-marketplace per retail sector or sub-sector to survive. A critical success factor for a sectoral e-marketplace is that it must be led by business experts. At the same time, the integration level with internal systems (supply chain management), which differs in each sector, is considered an important factor for the use of marketplaces by businesses. The following were mentioned as the sectors presenting the most interest for Greece: tourism, pharmaceuticals, clothing – textile, constructions, shipping, energy, publishing, transport - storage – logistics, and retail – in individual sectors such as clothing, textiles, electrical appliances. Lastly, sectors of particular interest for the development of e-marketplaces are: defense, public supplies, and health - sectors largely influenced by the public sector.

VI. Technological issues

Summarizing, the existing software (either in foreign or Greek companies) provides many possibilities not being used (sourcing, contract management, logistics, payments, etc.). For the increased participation of SMEs in e-marketplaces, ASP applications may be used. Lastly, it should be noted that the use of EDI systems by big multinationals, still is the most stable way of business data transmission.

VII. Business issues

The most substantial use of an e-Marketplace services by any business, should be accompanied by the respective commitment of the business management, in order for the use of the e-Marketplace to be imposed to an extent on the various departments involved. Another main factor for obtaining more substantial benefits, is back end integration. On the other hand, issues appearing to be existing or possible problems are the interconnectivity of e-Marketplaces, the product codification/ classification systems used, and the presentation/ uploading of product catalogs. To date there has not been need for integrating e-Marketplace services into third party logistics companies, banks or confidential third parties, because the involvement of such parties in the completion of the commercial cycle is relatively limited. However, the need to adopt common standards in terms of product codification/ classification, as well as the harmonization/ synchronization of product e-catalogs is evident.

VIII. Funding issues

As has already been mentioned in each case the setting up of e-Marketplaces must be carried out by committed business drivers. At the same time, in certain sectors, sectoral/ collective organizations can play a substantial part in the promotion/ advertising of e-Marketplace services, as well as in facilitating the participation of smaller businesses. Existing e-marketplace infrastructures could, in some cases, provide part of the equipment for the development of new sectoral marketplaces, which shall be also based on the know-how such businesses already possess. Existing platforms have reduced software and hardware funding needs, resulting in emphasis being placed on the business development of e-Marketplaces.

In terms of a funding model, it appears that the best scenario concerns the development of e-marketplaces in two stages:

1. Establishment of a new e-marketplace, where there is more need for seed funding. At this stage the development of a real business plan and the setup of a new entity that shall develop and manage the e-Marketplace could be funded. Some of the most important issues that should be examined in detail in such a business plan include the following: the exact business model for the specific sector, end customers and ways of approaching them, alternative pricing methods for services, key-players in the sector and possible competitors of the e-marketplace, technological options, as well as proof of the viability of the whole enterprise and of the active involvement of business drivers.
2. Development and operation of the e-Marketplace – for the business schemes approved in the previous stage, funding could be provided for the supply of equipment (or the development of applications through ASPs) and software, telecom expenses, the tailoring of the

software to the particularities of the given sector, and the initial operating expenses, which cover a part of the promotion/ advertising expenses, as well as the expenses related to the staff necessary for the development of the e-Marketplace.

The total cost for the development and initial operation of a sectoral marketplace can amount to € 1.5 mio. Of course, it is evident that all funding should respond to the development objectives for an e-marketplace, and of the individual sectors it targets, and the development of specific e-services based on their anticipated use and the necessary investment should be justified.

Other issues that could possibly need funding concern:

1. the funding of *individual businesses* – users, in which there appears to be need for supporting the organization of procedures, consulting, and logistics organization, the improvement of internal business relations (between sales and procurement), etc.; and
2. the funding of *collective efforts* for the adoption of common standards with regard to the codification/ classification of products, as well as for the development of e-catalogs, sectoral strategies, etc., of the ECRtype.

☐ **Proposals to the government**

The above conclusions in conjunction with the international experience and the Greek reality in b2b marketplaces, lead to the broader conclusion that the Greek government must actively support the development of b2b e-marketplaces, and e-transactions in general, mainly at a sectoral level. A more general responsibility on the part of the government is to improve both the conditions under which Greek businesses operate, as well as their competitiveness both in Greece and internationally. It is believed that both of these objectives can be attained through the development of the appropriate infrastructures for b2b marketplaces.

It is evident, of course, that in order for this to be achieved, funding could be provided to both the development of business plans for b2b marketplaces, as well as to the further implementation of those business plans that shall prove both their viability as autonomous business entities, and their broader contribution to the development of Greek businesses through the provision of new supporting e-applications. Therefore, the government must adopt a funding scheme which shall focus on the development of mainly sectoral b2b marketplaces (mainly in important sectors of Greek economy) based on the data that have been examined in detail in this report.

More specifically, with regard to possible funding schemes, the government must examine the following three areas of intervention:

- A. **Individual businesses:** to a certain extent support is being provided to individual businesses through programs such as "go digital", while some indirect incentives/ facilities could be created for the further development of the use of b2b e-marketplaces.
- B. **Horizontal projects:** The operation of the present Task Force highlighted the imperative need for the implementation also of projects of broader application by Greek businesses, in order to facilitate b2b transactions. Bearing this in mind, it is important that funds are found also for the development of horizontal supporting structures/ applications, such as for instance for the creation of a national product classification system or the creation of a national electronic product catalog. Possible implementation bodies for such infrastructures could be independent third parties accepted by the majority of users and with proven know-how (e.g. ECR, etc.).
- C. **B2B e-marketplaces**, as have already been presented above. In any case, the funding of business plans should start as soon as possible and the evaluation should focus on the expected business results and not on individual processes. Also, the marketplaces to be funded shall be audited on the basis of their business success, and as a reward for the best ones, a bonus system could be setup for the most successful ones.

At the same time, the government itself must take specific actions to modernize its own processes through the following projects and interventions:

- A. The Presidential Decree on e-commerce, which at the time is at the Council of State, must be more flexible and facilitate the use of new technologies and services by Greek businesses.
- B. The government must promote immediately the development of a National Electronic Public Supplies System and extend the use of similar applications to sectors such as the defense and health sectors. Currently the three pilot projects on electronic public supplies announced by the Secretariat General of Commerce of the Ministry of Development are at their completion stage, and the broader development and implementation of such systems must proceed as soon as it is possible. It is very clear that such a development can lead to the broader development of e-business transactions by a large number of Greek businesses.

The final conclusion of Task Force B2 is that today is high time for the broader support of b2b e-marketplaces by the government, in the pursuit of the improvement of the competitiveness of Greek businesses in the primary sectors of Greek economy.