



## ACTIONS AND STEPS NECESSARY FOR THE TRANSITION TO E-COMMERCE AND FOR ITS SPECIFIC SYSTEMS DEVELOPMENT

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**Abstract** *To use specific electronic commerce applications and benefit from its advantages, companies need information, a specific infrastructure and appropriate support services. The specific e-commerce activities can be carried out and its applications can be used, through its infrastructure meaning computer technology, software and networks used in e-commerce. Implementing these components requires from companies superior management abilities to plan, organize, motivate, set strategy and reshape processes so as to optimize their business, using models and e-commerce strategies.*

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### 1. INTRODUCTION

Electronic commerce is a very diverse area, involving a series of activities, specific applications and different organizations and technologies. To use these applications, companies need information, specific infrastructure and corresponding support services. E-commerce activities and applications can be achieved through the use of its infrastructure and with five categories of factors considered to be the basis for electronic commerce like people, public policy, marketing and promotion, support services and business partnerships.

E-commerce infrastructure describes the information technology, the applications, software

and networks used in electronic commerce. These components require upper management practice meaning organizations ability to plan, organize, motivate, set strategy and reshape processes in order to optimize their business, using models and e-commerce strategies.

### 1. THE ACTIONS NECESSARY FOR THE TRANSITION TO ELECTRONIC COMMERCE

The main activities involved in the implementation of a strategic plan to develop the business model based on e-commerce include (1) setting a target for the use of Internet for business, (2) description of the product or service to be distributed (sold) through the Internet (3) online

market intelligence and (4) a budget to implement the plan to transition to the new business system.

**Goal setting** (1). Transition target setting to electronic commerce requires steps like (a) the analysis of the overall performance of the company respectively (b) the development objectives.

*To analyze the general framework of the company and its performance* (a), the most widely used method of analysis viability certain strategy is the SWOT analysis - Strengths (Strengths), Weaknesses (Weaknesses) Opportunities (opportunities) Threats (Threats). The first two components are aimed at the specific characteristics the company. The last two are used to assesses the operating environment. The result of such analysis is a matrix that helps design objectives.

The analysis is used to evaluate

- the financial situation
- the existing equipment situation
- the situation of the existing buildings and other activities that could help or hinder the strategy of transition to electronic commerce
- how the Internet can lead to achieving savings or revenue generation
- current business practices and comparison with the costs involved in doing business on the Internet.

After identifying the opportunities and benefits, goals are set and grouped into short-term and long term ones. An example of a short-term goal may be to increase knowledge about the use of ICT, while a long-term objective should aim to expand into new markets. All objectives can be

grouped into an overarching goal that is measurable and fit a time.

**Description of the product or service** (2). Description of products or services that are intended to be marketed using the Internet, including activities carried out routinely in this respect is essential. For this companies making the transition to e-commerce need to pay attention to:

- The presentation of the products to be marketed, because it represents a new challenge for the company .;
- The strategy to be used in the new market environment to reduce costs, increase revenue and achieve a corporate identity by name;
- The analysis of what competitors are doing and how to achieve competitive advantages.

**Market intelligence online** (3). Firms may resort to mailing lists or newsgroups to make their presence felt on the Internet. Yet monitoring thousands of discussion groups is difficult. Fortunately, there are specialized companies that can do this for a fee. It is sufficient to establish certain criteria for selecting the companies participating in such groups and the company contacted to monitor them.

**The budget needed for the implementation of the strategic plan** (4). The main cost categories are (a) staff, (b) equipment, (c) applications and software and (d) costs of services.

*Staff costs* (a) must consider new qualifications, additional staff specialized in information systems (systems analysts, database designers, systems designers, application programmers, etc.) as manager system, Internet

sites designers, graphic designers, programmers HTML, XML, ASP etc. developers CGI, Java programmers.

*Equipment costs* (b) take into account the cost of purchasing servers for each Internet service, modems providing data communication, routers, multiplexers, switches, a computer to form a network connection, scanners, a computer for creating and updating websites and a firewall.

*Programs and applications costs* (c) include the costs of purchasing and updating the applications needed to run Internet servers, those needed to create HTML pages, applications, Internet sites management, those required for programming CGI codes, player program encryption (if not already in the client software that uses the page and wants to transmit information requiring such an operation), the required applications for processing transactions (receiving orders and taking them into a database, processing credit card payments or other payments), and those required for firewall and video conferencing application, etc.

*Services costs*(d) include the costs associated with the lease of telephone lines, with connect to the Internet via dedicated lines or with staff training.

## 2. STEPS NECESSARY FOR E-COMMERCE SYSTEM DEVELOPMENT

The steps that are undergoing the process of transition to electronic commerce can be grouped into four main stages, namely (1) the stage of initiation and planning, (2) the design stage, (3)

the implementation one and (4) the operational and maintenance stage.

In the **initiation and planning stage** (1), the following activities take place:

- identifying opportunities using SWOT analysis, following the four P: price, product, market, promotion;
- developing a business plan which outlines the elements that characterize the company, plus developing the marketing plan, management plan and financial plan;
- designing the implementation plan and identifying the means by which electronic trading system can become operational.

*The design stage* (2), involves conducting actions like:

- design of Internet site, taking into account the financial aspects, depending on the type of site and its complexity;
- obtaining an efficient connection to the Internet or identifying the host server;
- building web site pages;
- testing the pages;
- publishing the site
- establishing payment mechanisms and linkages with banking systems, as well as authentication intermediary institutions accounts.

*The implementation phase* (3) involves the:

- installation of the "storefront" site (a page on the site to be accessed by customers on accessing it);
- implementation of procedures for collecting and processing orders;

- installation of electronic payment mechanisms;
- implementation of security policies.

Finally, *the operation and maintenance stage* (4), ensuring the permanent functionality of the site (24 hours 24, 7 days a week), it supposes the regular update of the website, tracking costs and revenues, the constant evaluation of the way the website is functioning from financial, efficiency and traffic point of view.

### 3. CONCLUSIONS

Besides the technical aspects to be considered in the development of e-commerce, special attention should be given to human behaviour as this, through its function and actions, can determine the success or failure of the transition.

In the same time, the design, implementation, operation and maintenance stages highlight the peculiarities of the types of products or services to be sold, the sale option, the payment mechanisms that company will support, the possibilities of outsourcing certain activities, etc.

There are numerous companies that offer online solutions and support in taking those steps and means or techniques adapted depending on the size of the company, of its scope, type or model of e-commerce it adopts.

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