Michał Orzol  
Department of Corporate Management, Institute of Management, University of Szczecin  
ORCID ID: https://orcid.org/0000-0002-1879-1520

MAIN MODELS AND STRUCTURES IN E-COMMERCE

Introduction

In the modern economic reality the development of enterprises is determined by a number of factors. The basic determinants of an organization’s expansion include intensification of innovative activities, use of new technologies, as well as flexibility and ability to adapt to changes in the environment (Borowiecki 2011). The space in which a business entity operates creates opportunities and imposes certain requirements and restrictions.

One of the sectors using new technologies is commerce. The commercial sector has changed in recent years, and even though the essence of commercial activity is to match demand (consumers) with supply (producers), the ways of doing this and the tools available are constantly changing. In recent years e-commerce has been one of the most dynamically developing trade technologies. The term has many definitions, including:

1) sales and purchases via the Internet, all electronic transactions between an organization and a third party should be considered as e-commerce (Chaffey 2016),

2) the process of buying, selling, and exchanging products, services, or information over computer networks (Feldy 2012),

3) e-commerce can be defined as business undertakings centered around individual electronic transactions for which networks constitute the place for the exchange of information, services, and goods, covering the company’s relations with its market environment (Brzozowska-Woś 2014).

All of these definitions have a common part – they refer to sales and purchases via the Internet. All electronic transactions between an organization and a third party should be considered as e-commerce (electronic commerce) (Skorupska 2017).

In e-commerce entrepreneurs first need to establish how they want to use online sales channels, what business model and business structure to adopt, i.e. online sales only, multi-channel sales, or maybe an online catalog available to
sellers who look after clients and order products for them – there are numerous possibilities. The models of e-commerce, therefore, play an important role.

**Main models of e-commerce**

The concept of a business model was shaped under the influence of the Internet revolution which took place at the end of the 20th century. It means “a way of conducting business focused on profit or, more broadly, in accordance with the concept of Value Based Management, to generate a satisfactory rate of return for the owners” (Wierzbiński 2015). The basic goal of creating business models is to effectively conduct business focused on maximizing profit and creating added value for customers.

In e-commerce one may encounter terms related to business models categorizing them according to groups of recipients as well as sellers; these include: B2B (business to business), B2C (business to consumer), C2C (consumer to consumer), and C2B.

The origin of B2B models is in EDI technology, which enabled the use of electronic invoices and e-settlements. They are used to maintain constant contact between organizations (use of extranet solutions) and require one to build trust in their own brand (Ordysiński 2007). B2B is a market of business purchases carried out by business entities as part of their operational and investment activities. It is constituted by “a network of connections between companies created via the Internet as well as other electronic information exchange systems” (Schulz, Orłowska 2001). In a universal sense, it is a model of commercial transactions on the electronic market between business entities or within a given entity. The necessary requirements for organizations using business to business relationships include a legal agreement signed by both parties and the associated identification of the business purchase market users (Malinowski, Senkus 2015). The B2B market includes: online auctions, online folders and catalogs of sellers, secure transactions concluded with the use of user authorization and control, clear and easy-to-use catalogs. It provides freedom in searching for offers and the ability to track the purchasing process on the Internet and Extranet, including order submission, receipt, and invoice settlement (Mamcarz 2008). The characteristic aspect of the B2B sector is that none of the parties in a transaction is a consumer – a natural person (Salomon 2001). Business to business relations mainly concern manufacturers, exporters, importers, distributors, and wholesalers. Two types of purchases can be distinguished on the B2B market: standard (office supplies, food, computer equipment, office services, media, security services) and configurable (architectural, design, marketing, advertising, consulting, specialized machinery and equipment) (Malinowski, Senkus 2015).

B2C relationships take place on the enterprise-consumer line and “constitute an expression of the relationship between a company and an end customer, usually realized via the Internet. The party initiating the transaction is
the company” (Glinkowska 2011). Transactions take place remotely, via the Internet, and are carried out by means of online stores. From the organization’s point of view, maximizing the value of customer relationships is extremely important. It can be accomplished through one of three methods: increasing benefits through exchanges with customers, reducing the cost of handling exchanges with customers, and improving customer relationships (Mitręga 2004). The B2C relationship enables smaller businesses to compete with companies with an established market position. This is directly related to the reduction of geographical barriers, possibility of acquiring new customers, and reduction of costs by verifying and limiting less profitable distribution channels.

C2C is an e-commerce business model that is significantly different from the previous two. In this model natural persons are on both sides of the buying and selling process. An example of an organization that conducts its operations based on this model is eBay. This company operates the world’s largest online auction site. In short – in the C2C model individuals trade various types of goods in an online environment (Nojszewski 2004).

In C2B relationships customers can submit their offers to companies. This means that every natural person with something to offer, services or goods, has the opportunity to establish cooperation with various companies. One example may be the environment of bloggers, which has been developing so rapidly in recent years, as well as individuals publishing their own videos on the Internet and offer product or service advertising based on established conditions. E-commerce based on C2B is a new and growing market segment that can function as an entire business model or strengthen an existing advertising campaign (Misztal 2018).

The electronic business model is therefore a means to gain competitive advantage in industries that base their activities on the Internet. The main difference between the traditional business model and the electronic model boils down to answering a key question related to the change in business environment in the era of electronic economy. Undoubtedly, the main issue here is the development of tools and change of distribution channels, needs, and values for customers.

Modern electronic business models are targeted at various customer groups, ranging from individual, administrative, to business. One of the criteria for classifying e-business models is the way the Internet is used to run a business. The following categories can be distinguished (Szpringer 2012):

- transferred models – transfer of traditional business to the Internet, e.g. online stores, auction sites;
- innovative models – new types of business, whose operation depends on the Internet, e.g. internet search engines, VoD services.

It is also possible to classify electronic business models based on the following criteria (Szpringer 2012):

- role of the Internet in conducting electronic business,
type of business activity,

Considering the type of products offered online, the following e-business models should be distinguished (Szulc, Kobylański 2014):

- online store (e-tailer),
- Internet forums/social media,
- information, content, and message providers,
- websites and search engines,
- online transaction brokers,
- market creators,
- service providers.

The division according to the target group is associated with two main types of business relations: business-customer and business-business. The first relation mainly concerns such aspects as: sale of goods to customers, advertising, agency, network-related services. The second one is based on relationships between enterprises. The most popular models in B2B relations include: advertising, agency, innovative services, trade, and provision of services related to the Internet.

In summary, there are many electronic business classifications, and their characteristic feature is the acquisition and ability to implement new technological solutions that increase value. Modern e-commerce models integrate organization, business strategy, technologies and institutions, innovative payment systems (in the field of retail payments, key areas of innovation are payment instruments, new payment channels, and innovative forms of money).

**Main structures of e-commerce**

Companies use the Internet in very different ways. The main e-business structures according to the division proposed by Ch. Thomas, author of the book “eCommerce Masterplan”, are presented below (Thomas 2012). The basis for this division are the four ways sellers can contact buyers and make transactions:

- in a local store,
- through own website,
- through a shipping catalog,
- through a sales platform belonging to another entity (such as Allegro.pl).

Some stores use only one of the above, others – several or all.

Therefore, taking into account the division by marketing channels, we can distinguish (Skorupska 2017):

1) **Online pure player** – a store selling only via the Internet, using mainly its own online store. Buyers can also contact the service by phone, similarly some of the goods can be sold, e.g. on auction sites, but the basis for the business is its own online store. In this model the greatest difficulty is customer
acquisition and growth. This is how sellers of e-books, computer games, and music operate. Zalando is one example of this approach.

2) Mail-order or catalog sales – once very popular thanks to brands such as Świat Książki and Bonprix. Most orders are placed with the use of printed catalogs, which are slowly becoming obsolete today and are being replaced by online catalogs, i.e. the brand’s e-store. The structure of orders in these businesses is slowly changing and some of them can already be included in the online pure player category. The implementation of online sales in such companies is facilitated by existing logistics solutions, only changing the way orders are placed (Chmielarz 2007). It is difficult to change the habits of some customers and encourage them to use the Internet instead of catalogs. An even greater challenge is to introduce online sales in companies using catalogs, but above all cooperating with a large group of sales representatives, such as Oriflame. However, the example of Avon or Amway shows how to successfully use the development of the Internet to grow a traditional form of sales using catalogs and sales representatives.

3) Traditional sales and online sales, also referred to as bricks and clicks. This category includes companies that sell on the Internet, but also have a traditional store or chain of stores. Since it is a very large and diverse group, it was divided into two subgroups: store chains, usually with a large number of local sales outlets, and companies with one or two traditional stores and an online store:

a) Sales networks, such as Empik or Leroy Merlin, which originally only sold in local outlets, but also opened online stores. Along with changes in consumer behavior and increasing popularity of online trade, sales networks also invest in e-commerce and open online stores. The share of traditional and online commerce in the revenues of these networks is different. For many of them local stores are often of primary importance, while the Internet is just a kind of experiment or a way to build the loyalty of customers who like to buy online. Very often, when creating an online channel, there are concerns about mutual cannibalization of sales channels. Online and offline integration is a huge challenge. Company processes need to be adjusted and appropriate logistics solutions must be developed.

b) Stores selling traditionally and online in which, for example, the seller first traded only locally, but decided to expand access to customers through online sales. On the other hand, this category also includes online stores whose customers want to be able to use professional advice when buying. These are often specialist stores or stores with products for a small group of customers. Such companies face similar challenges as shopping networks, but on a different scale. Polish examples include the stores of Balladine with selected designer clothes for women.

4) Sales via an external sales platform, referred to as piggy-backing by Ch. Thomas. The seller does not create their own sale system, but uses a ready-
made platform, such as Allegro.pl, providing them, among others, with a customer base, a payment system, and certain technological solutions. The main advantage of such a solution is the good recognition of the platform among buyers, but high competition may constitute a disadvantage (Kirov and all, 2003). Using this approach, the company does not have to deal with certain legal issues, which are handled by the owner of the platform. For many entrepreneurs this is a good place to start and test various products, etc. Many online stores, apart from selling through their own platform, also display goods at auctions, e.g. if there is a damaged or defective product for sale, thanks to auctions it is possible to recover at least some of the money invested in the product. There are also two subcategories in this category:

a) sales through the most popular external platforms, such as Allegro.pl or eBay.com. The seller gains experience, can build their own customer base, test a variety of products. This provides access to legal and technological support as well as a wide customer base, but the seller should consider which model is more profitable, sales via an external platform or their own online store;

b) sales through specialized platforms, such as DaWanda.pl – for handicraft creators, Showroom.pl – for designers, and many others, e.g. for selling tickets for various events, booking hotels, etc. Here the customer base is not as wide as for the largest and most popular platforms, but it is already a target group interested in specific products. As in the case of larger external platforms, the seller gains a base of potential customers, but in order to actually sell, they must stand out from other website users.

5) Multichannel sales. Companies using various sales channels are listed above. The customer can choose the way they do shopping: at a local store, online store, auction site, etc. This is a very difficult business model, because each sales channel is associated with different processes in the company, and customers have high requirements for service in each of them. The problem faced by stores selling in the multichannel model is that many processes seem very simple from the customer's point of view, but in fact they entail many difficulties, e.g. the possibility of withdrawing from an online transaction and returning the goods to a local outlet – such solutions are expected by customers, but for the store they are associated with e.g. logistics problems.

In practice many businesses are a mixture of all the categories described, and sales methods change over time. Stores not only create new contact points with the brand for their customers, but also close others due to lack of interest and low profitability.

**Conclusions**

The dynamically developing e-commerce requires not only intuition, but also adaptation to the current trends and needs of recipients, and thus – requires a business plan, market research, and a well-chosen e-commerce sales model. The
most common e-commerce models are business-to-consumer (B2C) and business-to-business (B2B). The former occurs when a given company makes a transaction with a private user, serving as the initiator of the transaction. The latter occurs when two companies enter into a transaction between themselves. The third option – less popular – is consumer-to-consumer (C2C), in which the transaction is carried out between two private users.

One of the most-discussed topics in e-commerce is business models. Virtually every company offering e-commerce services uses a business model in its operation. Such a model answers the following questions: how does the company intend to generate revenue? why do customers pay and intend to pay for using a commercial website? The lack of a clearly defined business model is one of the most common barriers, apart from costs, in e-commerce activities.

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Abstract

E-commerce (electronic commerce) is conducive to the introduction of innovative methods of cooperation between enterprises and is perceived as a factor increasing their competitiveness. E-commerce enables quick communication between the supplier and the recipient, shortening the billing process with the contractor, as well as flexible response to market needs. It also allows enterprises to connect and increase their purchasing power and reduce the costs of entering new, distant markets. However, the success of such an undertaking depends on the adopted e-commerce model and strategy of operation. The purpose of the article is to present the current spectrum of e-commerce models implemented by companies in cyberspace. It also discusses the main structures occurring within these models.

Keywords: electronic commerce, e-commerce, business model, B2B, B2C

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