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Chodak, Grzegorz

Wrocław University of Technology, Poland

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ANALYSIS OF ON-LINE SERVICES

Grzegorz Chodak
Wroclaw University of Technology
grzegorz.chodak@pwr.wroc.pl

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Abstract

The aim of this paper is to analyse on-line services as well as to classify them and show their main advantages and disadvantages. In the first part of the paper the author proposes a short taxonomy of on-line services. Then the typical course of on-line services realization is presented and the revenue models in on-line services selling are analysed. Next the main advantages and disadvantages of on-line services selling are shown. The last part of the paper describes the examples of Polish on-line services. The services are divided into three categories: fully-automated, half-automated and not-automated.

Introduction

Development of the Internet is causing not only the appearance of increasing number of Internet shops, but also coming into existence of many companies that sell on-line services: from banking services, on-line games, on-line legal and financial advices to innovative services like web-services which enable on-line questionnaire surveys, services which help to win on-line auctions or web-services for real estate valuation. The number of on-line services has been growing dynamically over the present decade.

On-line services are a very broad issue so the author has chosen only some of the most important topics as a subject of his investigation in this article. The aim of this paper is to analyse how such services function, to classify them and to show their advantages and disadvantages. An on-line service could be defined as a website which enables buying or gratuitously using the service via the Internet. As service the author means: “business activity, which does not consist in manufacturing material goods, but in serving other people by natural and legal persons” [PWN Encyclopaedia – translation

by the author]. Service sector is one of the three major sectors of economy aside from manufacturing and agricultural sectors. In developed countries employment in service sector is over 50% of all employment and shows a growing tendency.

1. Classification of on-line services

Presented taxonomy of on-line services indicates their important features. Three of four proposed divisions of on-line services concern the environment in which they are set.

On-line services can be classified into three groups in respect of operations undertaken by the manager of the web-service as:

- Fully-automated;
- Half-automated - requiring only few actions from the web-service manager;
- Requiring wide range of actions from the web-service manager.

In the first group the service is realised automatically by software installed on the server with no administrator action. This kind of on-line services can be regarded as optimal concerning their labour cost level. Of course they are not "the economic perpetum mobile" used to earn money. First of all, the more automated is the software the higher is the cost of its production. Secondly, the software should be upgraded, because of the dynamically changing Internet software tools – browsers etc. Thirdly, databases should be archived, the backup tested and it is not safe to do this activities only automatically. Fourthly, all on-line services enable e-mail contact and it must answer customers' questions. One can argue that it is possible to put FAQs (frequently asked questions) inside web-service and it will reduce the number of e-mails. Probably it is true and it is very often done, but customers before they spend their money prefer to contact a real person who assures them that this on-line service complies with their expectations.

The second group requires only a few actions from managers. Almost all service is done by server software, but some of actions need human interference. It means that some of activities cannot be automated and realized by the software.

The third group of on-line services is based on Internet communication, but all work is done by human action. A good example of such services are economic/financial/personnel consultancy, where customer after buying subscription

has unlimited access to databases, but consultants should answer the customer questions sent via e-mail.

The borderline between this three types of services is not always sharp and putting some of them to only one group could be debatable.

Another classification of on-line services could be dividing them into:

- services that came into existence with the birth of the Internet, so they concern Internet;
- services not concerning the Internet, realised outside the Internet.

First group of on-line services came into existence together with the Internet proliferation. Evolution of the Internet calls for new needs and ideas, so year after year the number of services which concern the Internet has been growing. The examples of such services are: hosting, web pages positioning and web sites designing.

The second group is adaptation of services that exist outside the network into the Internet environment. All of "traditional" services which can be realised in global network more efficiently appear in the Internet. Very often they are a modification and broadening of services realised earlier without the Internet. A good example is Internet banking, which is one of the most spectacular areas of efficient application of the Internet into economy.

Another proposal of classification concerns the place where the service is realised. On-line services can be divided into the following groups:

- on-line services which are the part of services realised outside the network;
- on-line services realised wholly in the Internet.

An example of on-line service which is partially realised outside the Internet is on-line banking as a new channel of contacts with customers in traditional brick and mortar banks. An example of on-line service which is wholly realised in Internet could be web hosting, on-line games etc.

The last mentioned classification applies to the domain in which service is realised. Proposed list could be much more extensive. The chosen domains show the

diversity of on-line services applicability. We can indicate the following examples of applying on-line services:

- Internet banking
- web hosting
- financial consultancy
- e-mail
- VoIP telephony
- application service providing (ASP)
- on-line games
- erotic on-line services
- disk space rental
- psychological consultancy
- medical consultancy
- dating agency
- employment agency
- services in social networking.

2. Typical course of on-line services process

Usually the course of on-line service in Internet consists of the following phases:

1. Preliminary phase: registering process and payment;
2. Main phase: on-line authorisation of customer and service accomplishment.

ad. 1 Registering process

First of all the customer should pass the registration process by giving required personal data like e-mail, password, address and taxpayer identification number (when the client wants to get an invoice). The access to payable services is available after buying a subscription. Usually different payment methods are allowed, e.g. by credit card, by electronic bank transfer or by a text message. After payment the customer account is activated. Some accounts could be activated on open-ended and some on determined period of time.

ad.2 Authorization process and carrying out of service

Customer with activated account logins to the system fulfilling the required data: usually it is a login and password or e-mail address. The system checks whether the data is correct and the account is active (the customer has up to date subscription). Usually the prices of subscription are differentiated depending on parts of service to which the customer has access. The service is carried out using the web browser and software installed on the server. The completion of Internet service can be realised entirely on-line or partly off-line (for example in advisory services the question could be send using special web form or via e-mail and answer could be presented on web page or send via e-mail).

3. The revenue models in on-line services selling

Selling of on-line services requires application of an appropriate revenue model, which considers the specification of the Internet. The model based on small unit revenues, which in traditional business would be not profitable, in Internet could be reasonable in case of huge amount of potential clients.

We can distinguish two main revenue models in on-line services selling. The first one is based on the range of free services, which should attract the clients. Then the system offers additional services, which are payable. The subscriptions for additional services can be different for various types of services and various time of access to them. The example of such service could be webankieta.pl or fotka.pl.

The second revenue model is based not on subscription but payment for specific services. Sometimes it is difficult to distinguish between these two models of revenues, because the difference between buying subscription and buying specific service is not always clear. Some services give the possibility to chose which kind of payment the customer prefers – for example: to buy one match in an on-line game or buy a 1 month subscription for these game.

4. Advantages and disadvantages of selling on-line services

On-line services have some important advantages that cause their rapidly growing popularity. In opinion of the author, the most important advantage of selling on-line services is the possibility to gain to a wide range of customers. There are no geographical and time barriers in the Internet. When the web service is multilingual, we

can gain customers from all around the world. Such a wide range of customers allows selling niche services, for which demand in a given geographical region would be too small to provide acceptable profits.

The second important advantage of fully-automated on-line services is the possibility to deal with many customers at the same time. The only limitation is bandwidth and the server efficiency. When the bandwidth is large and server hardware and software is efficient, there is a possibility that on-line service can be used by thousands of customers at the same time. It is impossible to get such an efficiency in traditional services selling. Another significant advantage is an opportunity to generate revenue almost without human activity.

Another benefit of selling services in the Internet is lower cost of advertising. Using blogs, newsgroups, forums, social networking, and search engines the marketing provides the possibility to promote service at much lower costs than in the traditional media.

The Internet gives the opportunity to carry out individual ideas. Surfing through cyberspace one can come to the conclusion that there are no limitations in inventing new innovative services.

The most important disadvantage of selling on-line services is the fact that communication with customer is based on software, so the interface must be user friendly, the bandwidth should be fast, application should have no errors etc. The software engineers and designers should predict all customers actions. It means that the success of business mainly rely on the quality of the software. The costs of implementing an application for on-line service may be high. Sometimes the software is implemented by the originator of the web service. The weakness of such a solution is that the author of the software takes care mainly of IT activities and neglects the business activities.

Another disadvantage is the necessity of software upgrading. It needs to be adjusted to new versions of web browsers, databases engines etc. The Internet is very dynamic and one should instantly watch the new standards and technological novelties.

Another very important disadvantage of selling services on-line is lack of eye to eye contact with the customer. Sometimes clients choose the traditional way of buying services, arguing that they prefer direct contact with the service supplier.

5. Examples of on-line services

Below the examples of Polish on-line services are presented. The author chose some interesting services, which were divided into three categories.

5.1 Fully automated services

Survey service – Webankieta.pl

Webankieta.pl is an example of innovative service which gives the possibility of creating an on-line survey and carry out the survey in the Internet. Customer creates the survey using only a web browser. Then he or she e-mails the links to the survey to people who are a sample for the research. The system automatically generates the collected results, to which only the administrator of the survey has access.

The revenue model is based on subscriptions. The amount of subscription depends on its expiration date and the accessibility of some advanced options like creating tree surveys, filtering the results, etc. Webankieta.pl has a demo version, which gives the accessibility to all options, but one cannot carry out a scientific research, because the answers to surveys are deleted once a day. The aim of the demo version is to present the range of possibilities of the service and to attract new clients who are mainly scientists, students, PR analysts, etc.

Webankieta.pl can be treated as a fully automated service. All activities are done by the customer using a web browser and software installed on the server. There is no need of administrator interference. Theoretically, the role of the owner of webankieta.pl could be limited to answering e-mails and marketing activities. Practically, it is necessary to develop the software, introduce new functionalities, upgrading it to new browser standards etc. The owner put the form on the web site to get customers opinions about new desired functionalities [www.webankieta.pl].

www.snip.pl

Snip.pl is an example of that kind of services which came into existence with the Internet. The authors of this service noticed the chance of taking advantage of the dynamic development of the Internet auctions services. The service Snip.pl is the Internet auction sniper, which can track the auctions in the biggest Internet auction

services like Allegro.pl eBay and automatically put the offer just before the end of auction.

The model of revenue is based on taking fees from every won auction. Snip.pl is mainly useful for people who often buy on Internet auctions and have no time to track the auctions all the time. The service is fully automated and all activities are carried out by the software [www.snip.pl].

5.2 Half-automated on-line services

Service for flat prices evaluation - www.snajp.pl

Snajp.pl is an on-line service that offers real estate price valuation. It collects database of flats' prices and then estimates the price of the real estate given by the customer. Snajp.pl offers a demo version in which one can try to evaluate prices of three real estates. Evaluation of prices of more flats requires buying a subscription. The price of subscription is determined by the time of activity (there are 4 possibilities: subscription for 70 min, 24h, a week and a month).

Evaluation of flat prices is made using the prices of similar flats. The software uses the original algorithm based on regression model (Sheppard method). In proposed method the price is the weighted mean the most similar real estates. The weights are proportional to the similarity, which is the function of all given real estate attributes.

The offer of Snajp.pl is directed to real estate agencies and people who are going to sell or buy flat. The half-automation of service is the result of the required prices actualization in the database. This work cannot be done without human activity. It is possible to do it almost automatically downloading from real estates Internet bulletin boards, but it should be also supplemented by advertisements from traditional media like press. It is also important to check the correctness of the data downloaded automatically [www.snajp.pl].

The Centre of Financial Analysis EBIT – www.rsg.pl

This service offers financial analysis of public companies and shares valuation. The service gives the financial analysis of all joint stock companies listed on Warsaw Stock Exchange and also the sector analysis. It contains the financial standing of the stocks and their potential growth.

The revenue model is based on buying the subscription. Registered customers have the access to all offered functions. The price of subscription is determined by the period of time on which the account is active (it's possible to buy: 3 month, 6 month, 9 month and 12 month subscriptions).

The offer is directed to investors who would like to get more information about stocks, financial analysts, investment consultants and all potential investors who are interested in stock exchange.

This is a service which can be considered as a half-automated. The presented data are downloaded automatically and financial indicators are calculated by software. However the service offers also a newsletter which contains commentaries concerning current important economic events and describing most probable trends on Warsaw Stock Exchange and the edition of the newsletter requires of course the human action [www.rsg.pl].

5.3 Not automated on-line services – e.g. services selling online psychological advice

An interesting example of non-automated on-line services are psychological web services. Procedures of the whole process (consultation or therapeutic) together with the contact between the client and the psychologist are diverse in different situations, depending on the character of the service organisation. In some cases this contact together with all the technical aspects is provided and secured by the company that is an agent between the psychologist and the client using the websites that are frequently advertised on many servers and in many other places. For this service the agent charges fees (often on a one-off basis). In other cases the therapists offer their services directly, using given servers and squaring the accounts with clients on one hand and with companies offering the servers on the other. In such cases at the moment of entering a website of the service company the client will find sufficient information pertaining to the character and range of the services, various technological solutions used to organise the relation and information about the therapists and their experience, specialisation, qualifications and ways of getting in contact with them. Model services: *www.swiatpsychologii.pl, www.psychologia.apl.pl, www.leczdepresje.org* [http://www.acpp.ukw.edu.pl/online/4.html]

Summary

Selling on-line services is a rather new domain, but it develops dynamically together with the growing number of the Internet users in Poland. In this article the author proposes the classification of on-line services. The most important division concerns the amount of human activity. Taking into consideration the revenue models, the fully-automated services could be treated as the most profitable. The greatest disadvantage of such services is high cost of implementing them.

As it appears from the presented range of domains, the on-line services concern many areas of human activity. These domains will probably be dominated by the Internet, because of the possibility to gain more customers worldwide. This services which require the direct contact with the customer will still be realised without a network.

The aim of the presentation of the on-line selling services examples is to show how innovative and diverse they can be. The author would like to thank to Daniel Owsiański, the author of on-line service for providing helpful advice during the process of writing this article. The future of on-line services depends on their authors' creativity and the customers demand. The most popular services will probably be a golden egg for their owners, but the competition will be increasing and only the most innovative, user friendly and well promoted services will attract many customers.

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Grzegorz Chodak, PhD.
Wroclaw University of Technology, Institute of Industrial Engineering and Management
ul. Smoluchowskiego 25, 50-372 Wroclaw, Poland