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Analysis of selected segments of Polish e-finance market

Prof. Andrzej Małachowski

Professor, Institute of Information Technology in Economics, Department of Management, Information Technology and Finance

Postal Address: Andrzej Małachowski, Wrocław University of Economics, Komandorska 118/120, 53-345 Wrocław

Email: andrzej.malachowski@ue.wroc.pl

Abstract

Selected websites of Polish e-finance segment are analyzed, including news services on finance and economy, portals of financial product and service suppliers, specialized financial services websites. The aim of this paper is to present a functional and structural analysis of selected e-finance websites and portals, together with evaluation of their usability, based on own research and third party studies. Basic statistical data on Polish segment of finance and e-finance is presented.

Keywords: e-finance, functional and usability analysis of websites

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Introduction

In general, the term e-finance refers to financial services offered by various economic entities via electronic media: telecommunication and teleinformation, including the Internet. The subjective and objective scope of e-finance roughly replicates the scope of traditional finance services, covering economic relations between individual actors of the market that involve exchange of financial assets [5], [13].

The sector of finance and e-finance is a broad and important (or even crucial) sector of national economy. Services of this type, especially operational and transaction services, are provided by the majority of economic entities, including central and local administration authorities (government, central bank, treasury, budgetary system, central and regional offices of administration), financial institutions (banks and

credit institutions, insurance companies, stock exchanges, investment, capital and pension funds), and 'traditional' economic organizations (companies, households, natural persons and assorted foreign corporate entities operating on Polish market)[13]. The role, influence and significance of e-finance sector in relation to national economy as a whole, as well as the power of global cross-relations between e-finance and world economy can be attested by the recent (ongoing) global economic and financial crisis.

This paper concentrates on selected elements of e-finance sector, namely:

- companies and organizations providing e-information services in regard to economy and finance (information agencies, bulletins and magazines, publishing houses),
- financial product providers: investment, capital and pension funds, brokers and financial advisors, etc. (*including banks, credit institutions, leasing companies, insurance companies*¹),
- economic entities offering specialized e-finance services (companies, agencies, financial advisory services, debt information providers, financial platforms and portals, tax advisors).

The main objective of this paper is to present structural and functional analysis of selected representatives of Polish e-finance services market, together with usability evaluation, based on own research and third party studies. The starting point of the analysis is the record of basic statistical data on Polish sector of finance and e-finance, presented below.

Basic statistical data on the sector of finance and e-finance

Economic boost of recent years has resulted in dynamic development of Polish market of e-finance services. According to the most recent statistical reports, computers are owned in 56.4% of Polish households[4], with 57.8 % of Polish people [11] having access to the Internet. By analogy, among companies [12], as reported by Polish Central Statistical Office (GUS), in 2008, 93% had access to the Internet, with 36% of the employed utilizing computers on regular basis (at least once a week), and 28% having regular access to the Internet. Networked computers were used commonly in all medium and large companies (nearly 100%). Even among small companies, computer use was reported by 94%, and 91% of the computers had access to global network.

The principal source of statistical data on e-finance product access and scope of transactions made using this form of service is the statistical data reported by the largest Polish internet sites offering this type of service. These include, among others (in thousands of unique users accessing business and finance services per month) [7]: Onet.pl- 2 698; Money.pl- 2 610; Bankier.pl- 1 987; Infor.pl – 1740; Wirtualna Polska- 1704; Interia.pl- 1411; e-Gospodarka- 1338; Gazeta.pl- 1258.

It must be noted that the Internet ranks second on the list of major sources of information as well as on the list of the most influential sources of information affecting financial decisions [10]

¹ This group of providers, for the sake of brevity, will be disregarded. In this respect, banks and leasing companies are typically regarded as e-banking entities, while insurance companies are ranked as e-insurance. Both, however, are within the scope of broadly defined e-finance segment.

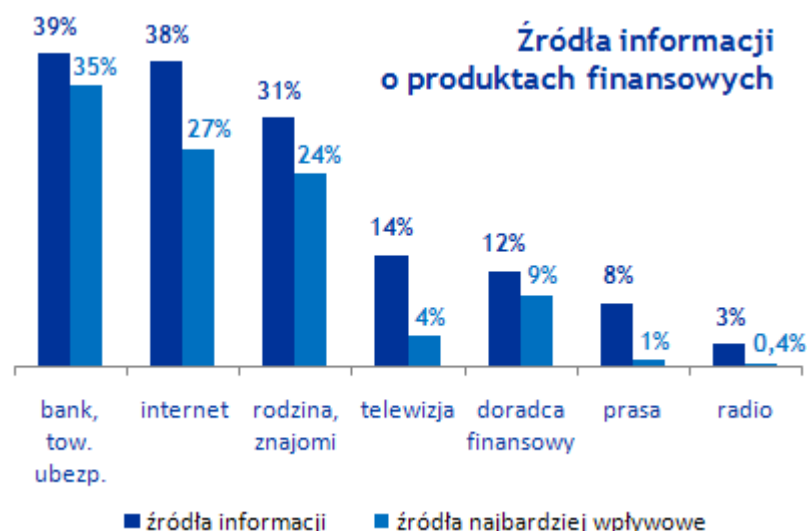


Figure 1. Sources of information on financial products.

Source: [1].

As seen above, the Internet is ranked twice as popular information source as television, with other traditional communication media (the press, radio) reported to be of marginal significance.

Polish customers seek information on financial products and services through the websites of banks and financial institutions (76%), through search engines (40%) and through financial portals (32%). According to the same study by Google on Polish e-finance market, as many as 90% of Polish users in the age group of 18-54 report using or having used e-finance products within the last 12 months.

Table 1 presents the structure of the most popular financial products (including e-finance) reported to be used or sought after among Polish Internet community (Tab.1.)

Table 1. Financial products used and sought after by Polish Internet users

| Financial products | | | |
|----------------------------|------------|----------------------------|------------|
| Used (%) | | Sought after (%) | |
| Current account | 77% | Mortgage | 19% |
| Car insurance | 44% | Savings account | 17% |
| Life insurance | 42% | Investment fund | 16% |
| Credit card | 40% | Loan | 15% |
| Savings account | 36% | Credit card | 14% |
| Property insurance | 28% | Current account | 12% |
| Loan | 23% | Shares | 11% |
| Travel (tourist) insurance | 15% | Car loan | 11% |
| Investment fund | 14% | Life insurance | 11% |
| Mortgage | 13% | other financial product | 10% |
| Shares | 7 | Property insurance | 8 |
| other financial product | 6 | Car insurance | 8 |
| Car loan | 6 | Bonds | 8 |
| Bonds | 3 | Travel (tourist) insurance | 6 |

(Multiple responses were allowed)

Source: [1].

As reported in the study conducted by Money.pl portal [6], the most popular finance-related online activities of Polish Internet users include opening current accounts, purchase of investment fund securities and ordering credit cards. Ca. 60 % of Internet users report having ordered or purchased financial products online. In the next section, selected Internet e-finance service providers will be presented.

Characteristics of selected e-finance websites

The overview of selected e-finance websites will be separated by type of service offered, into: information websites, review portals, financial boutiques and specialist e-finance service providers. For brevity, only the most fundamental functional and usability features of these sites will be discussed.

Information websites

General and specialized online information services are the basic source of information on e-finance. The list of the most popular sites in this category, presented in the introductory section of this paper, may be supplemented by websites of major newspapers and information agencies, such as: Reuters Polska (www.reuters.pl), Polska Agencja Prasowa (www.pap.pl), Informacyjna Agencja Radiowa (www.iar.pl), Rzeczpospolita Online (www.rzeczpospolita.pl), Puls Biznesu (www.pb.pl), Gazeta Prawna (www.gazetaprawna.pl), etc. The scope and depth of finance and e-finance news presented by general information services sites is, for obvious reasons, varied. Some of the websites specialize in this area, others tend to perceive financial information on a par with other elements of the news service, others still present financial news occasionally [5].

Specialized financial news services are decidedly more valuable in terms of their functionality and utility. The most significant asset of these sites is the current update of detailed news and information on financial and capital markets. The access to news archives, current news and reports, time-delayed stock quotes as well as overviews, analyses and prognoses is usually free of charge. Users are typically obliged to pay a small fee to access in-depth information and real-time stock quote updates (the most popular form of payment is the subscription of selected info packages). News services provide not only information; some offer **advisory functions** or even **interactive tools** (such as currency exchange calculators, virtual stock portfolios) based on database content. The most advanced sites of this category include Reuters' MoneyNet (www.money.net) and Money.pl (www.money.pl). These sites offer not only specific information tailored to financing needs, but also certain online transactions and investment operations.

Review and overview portals

The Internet features an enormous selection of portals and sites offering specialized e-finance reviews and overviews. Some of them, especially those operated by renowned organizations of traditional and virtual markets, offer professional services tailored for individual and corporate customers. However, this particular segment is particularly prone to amateur activities, with pseudo-expert content produced by small, inexperienced companies or, in many cases, hobbyists and laypersons; a good example of virtual litter.

Of those trustworthy and renowned, with the large number of individual registered users, most notable are the sites of: Bankier.pl (www.bankier.pl), Money.pl (presented above), and a fairly recent portal Inwestycje.pl (www.inwestycje.pl).

The Bankier.pl portal is one of the largest financial sites in Polish, providing not only financial information, but also a range of financial intermediary services. The main categories of Bankier.pl are: *news, personal finance, investment, enterprise and lifestyle*. Users have access to news updates on finance, economy and business, a variety of financial products and services offered by major banking and financial institu-

tions, expert advice and instruments aiding in selection of e-finance offers; overviews of current stock exchange trends and investment decision tools. Moreover, parts of the *enterprise* subsite are tailored to the needs of small and medium companies sector (SME), with information, advice and reports on such issues as SME operation, taxation and financial instruments. The *lifestyle* section of the portal is a broad selection of news in culture, entertainment, new technologies and sport.

Portal Inwestycje.pl is equally rich in content and functions. Main sections of the portal include *economy, business, traditional and alternative investment, structured products, financial boutique, enterprise finance, real estate, jobs and style*. Users interested in e-finance can find here a very wide range of investment opportunities, covering such markets as stock exchange, foreign currency, raw material, real estate, and even art (!). There is an equally varied selection of products offered by banking institutions, insurance companies, investment and pension funds. For entrepreneurs, the portal offers a variety of analyses and overviews covering such subjects as EU funds, company crediting, leasing, corporate insurance packages, taxation, labor market and modern e-business solutions.

Financial boutiques

Internet users interested in e-finance have also access to specialized financial boutiques. Sites of this category, similarly to other specialized e-business boutiques (trade, auction, stock exchange, logistics, etc.) utilize vertical or horizontal structure. The former offer typically a narrow spectrum of financial services and products (objective specialization). However, products and services offered represent a wide range of functional and usability variants. Sites with horizontal structure, on the other hand, are oriented on providing products and services of the widest possible range of financial providers (subjective specialization). In the following section, two examples of e-finance boutiques will be presented: financial subsite of Wirtualna Polska and the Money.DIRECT website.

The financial boutique at Wirtualna Polska (pasazfin.wp.pl) is one of the largest Polish platforms of e-finance product sale. Its basic scope of operation is the intermediary service of financial product sale as well as promotion and publication services for financial institutions. As such, it represents a transactional and informative approach (marketing). Companies and financial institutions represented in the boutique use the site to promote their products among Internet users and build brand awareness. Another benefit is the feedback gathered via observation of user behavior and communication channels provided by the site, helping adapt the range of products and services to actual and potential customer requirements and preferences in the e-finance sphere. As a result, partners of the site gain a wide range of promotion opportunities – both through reference to their home pages, as well as on financial subpages of WP portal [5]. The boutique provides more than 80 financial products and services (banking, insurance, leasing, investment). Individual institutions partnering with WP are presented on separate mini-sites, featuring an overview of products and services, conditions of use (interest rates, commission, charges, etc.), applicable regulations, sample agreements and order forms, both online and offline. As a result, potential customers may use the site throughout the whole process of purchase: from offer comparison to final transaction agreement. In its objective structure, the WP financial boutique presents products and services separated into subsections of *banking accounts, credit/debit cards, credits, investments, insurance, pensions and enterprise*. The boutique offers products for both individual and corporate customers, especially SME enterprises.

Another widely recognized financial boutique, popular especially in the SME sector, is the site of Money.DIRECT (direct.money.pl). The site is principally a transaction platform for financial products and services of partnering companies. As already mentioned, Money.DIRECT is an integral part of the Money.pl financial portal. Users (individual and corporate customers) have access to general information, a wide

spectrum of specific products and services of financial partners, as well as online tools for finalizing the transaction. The e-finance offer of Money.DIRECT is separated into the categories of *personal accounts and teenage accounts, enterprise accounts* (also for SME sector), *deposits, credit cards, credits, leasing, investment and pension funds, debt recovery*. The site represents more than 30 largest financial institutions in Poland, including: PKO BP, BZ WBK, ING Bank Śląski, Lukas Bank, Deutsche Bank, mBank, Inteligo, GE Bank Mieszka-niowy, VB Leasing, EFL and others.

Sites and portals of specialist e-finance service providers

One characteristic feature of this group of e-finance sites is the offer of intermediary services (for individual and corporate customers) instead of typical e-finance market transactions. This category includes sites and portals of financial institutions, financial advisors, debt history databases, debt collecting agencies, tax advisors, etc. Expander.pl and OpenFinance are among the most popular Polish sites providing financial advisory services. Windykacja.pl is a popular debt servicing and collecting portal. The three above specialist service providers are characterized in the next section.

Expander.pl (www.expander.pl) is one of the largest financial advisor agencies in Poland. The company site is specifically tailored for in-house services of Expander. In addition, the portal presents updates on financial markets, quotes of investment funds and bonds, stock indexes, exchange rates and deposits, as well as financial guidance, editorials and reports. An interesting feature of the site is the rich collection of credit and investment calculators to support decision-making in personal finance management. The site is separated into the main categories (subpages) of: *investment products, credits and insurance products*. These subsections present information and guidance to support selection of savings, deposit and credit products. The site provides also information on various insurance opportunities, such as unemployment, life and property. Information and financial advisory services are addressed to individual and corporate users.

OpenFinance.pl (www.openfinance.pl), the main competitor of Expander, is based on a slightly different approach to objective structure. The site provides information in such areas as *credits and loans, investments and savings*, supplemented by separate sections of *news and editorials* and *ratings*. Detailed information is provided on crediting alternatives (housing credit, credit consolidation, mortgage, refinancing), as well as a variety of savings options (saving plans, investment funds, alternative investment, structured products, rentier products). The site offers a variety of online calculators, guides, editorials, reviews and analyses. The standard offer of products is addressed to both individual and corporate customers.

Windykacja.pl (www.windykacja.pl) specializes in legal support of debt servicing procedures, providing debt history on companies, institutions and state budget organizations. It features a wide selection of legal and fiscal regulations, standard agreements, documents and claim statements used in debt collection, as well as specialized advisory services on financial verification of potential contractors. One of the most interesting features of the portal is the liability auction section, providing intermediation in debt transactions. Users can also order debt collection and/or competitive intelligence services. The site is supplemented by contact databases listing civil courts and bailiffs. Similar advisory and information services on debt collection are offered by many other e-finance sites and portals.

Functionality analysis of selected Polish e-finance sites and portals

The analysis of functionality and usability of selected e-finance sites is based on two separate studies co-authored by this author [9], [3]. The leading Polish portals of the e-finance segment present a comparable range of functionality features. They are all oriented on providing information and instruments for finalizing e-finance market operations. Wide range of products, diversity and complexity of the market demand

structured approach to content presentation, hence the portals under study introduce clear division into thematic sections (subpages, categories). A clear-cut separation of information and products for individual vs. corporate users is typically present. The sites under study provide a variety of calculators (currency exchange, salary, interest rates, credit interest, credit rating, excise reimbursement, pension fund account balance, etc.), search engines, comparison sheets and charts, vocabularies of financial terms, tools for simple analyses of stock quote trends, and so on. Many sites offer mobile phone access to selected sections, RSS feeds, etc. Several e-finance portals are designed in line with modern Web 2.0 trend, stimulating active user participation in content creation through comments, discussion forums and blogs. There are examples of more or less effective attempts at building online communities. Another important aspect of user-oriented approach is the high level of personalization features (in terms of structure, newsletters, content filtering). A majority of e-finance portals offer intermediation in financial product sale for individual and corporate users, with well-arranged catalogs of products and services of banks, investment funds, insurance companies and other financial institutions, also with alternative investment opportunities. The market offer is well-presented, with tools for comparing and selecting products and services that best suit particular requirements of the user.

Basic structure and content presented on the sites can be separated into: general information on broadly defined financial market, specialized news on selected market segments (banking, insurance, capital markets, investment markets, pension funds, etc.), economic news, information on goods and services market (real estate, automotive, trade, agricultural, etc.), specialized information on enterprise finance, editorials, expert market analyses, financing and investment guides, etc.

The sites under study display a wide range of user-communication features: user profiles, personalization forms, voice communication (phone, teleconferencing, VoI), group expert meetings, access to many discussion groups and forums, personalized newsletters, user comments and reviews, blog space, RSS feed.

Results of research conducted on a representative sample of more than 1800 Internet users [2] show that qualitative functionality of websites includes the following features: timely updates, content quality, usability functions offered, additional information. Of all usability features valued by Polish Internet users, the highest ranking were (in decreasing order): load speed, ease of navigation, initial impression (appearance, content layout).

Practical studies of webpage design and usability employ a number of research approaches: direct user contact (interview), control list overview, parameterized control list, group test, eyetracking, clicktracking (mousetracking), pre-design test, navigation challenge test, expert evaluation and others [8]. This author's team research [3] employed the control list overview method to test usability of e-finance websites and portals.

Results of the research for selected Polish e-finance websites and portals are presented in Table 2.

Table 2. Results of usability tests of selected e-finance websites and portals

| Web address | Score (pts.) | Percentage of maximum scores |
|----------------|--------------|------------------------------|
| pzuofe.pl | 463 | 88.19% |
| bankier.pl | 459 | 87.43% |
| pioneer.com.pl | 449 | 85.52% |
| dmbh.pl | 442 | 84.19% |
| cu.pl | 441 | 84.00% |
| skarbiec.pl | 435 | 82.86% |
| dmbzwbk.pl | 434 | 82.67% |

| | | |
|------------------------|-----|--------|
| axa.pl/ubezpieczenia | 433 | 82.48% |
| arka.pl | 428 | 81.52% |
| pzuonline.pl | 425 | 80.95% |
| ubezpieczeniaonline.pl | 424 | 80.76% |
| inwestycje.pl | 423 | 80.57% |
| money.pl | 422 | 80.38% |
| openfinance.pl | 418 | 79.62% |
| bossa.pl | 414 | 78.86% |
| allianzdirect.pl | 412 | 78.48% |
| pasazfin.wp.pl | 393 | 74.86% |
| ipolisa.pl | 387 | 73.71% |
| expander.pl | 382 | 72.76% |
| ingfundusz.pl | 373 | 71.05% |
| gu.com.pl | 339 | 64.57% |

Source: [9]

Research of usability covered not only specialized e-finance websites and portals, but also sites and portals of brokerage companies, investment and capital funds, as well as e-insurance providers. These results, for the sake of comparison, were left in the table.

Conclusions

The analysis and statistical data presented in this paper suggest a dynamic development of Polish e-finance market. Increased competition in the sector stimulates the actors to provide systematic updates and extensions, both in terms of substance (objective content) and functional/usability features. This trend leads to increased attractiveness and competitiveness of this particular market segment in relation to traditional financial markets, which in turn stimulates rapid development of not only e-business as such, but also (and notably) of the national economy as a whole.

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