

Factors of Development Retail Electronic Banking in Poland

The article is devoted to investigation of development retail electronic banking in Poland, its factors, strong points, weak points, opportunities and threats.

Статтю присвячено дослідженню розвитку роздрібних електронних банківських операцій у Польщі. Розглянуто фактори його розвитку, сильні та слабкі сторони сектора роздрібних електронних банківських операцій.

1. Banking system development in Poland

Every country has its own system of banks. Their variety, structure as well as range and the modus operandi give the specific character to the banking systems of individual states. Before the Second World War, banking system in Poland was relatively well developed. In 1938 alongside the modern Polish Bank, fulfilling the central bank function as well as the role of bank of banks enjoying great prestige both at home and abroad, the great State-owned banks operated (Bank Gospodarstwa Krajowego, *National Household Bank*, Państwowy Bank Rolny – *State-Owned Polish Agricultural Bank* as well as Pocztaowa Kasa Oszczędności – *Post Savings Fund Society*), 27 private banks in form of joint stock companies (including four foreign ones), 28 bank houses, 19 credit companies, 333 municipal savings banks, 975 municipal loan and savings fund societies as well as 5597 loan co-operative societies. Immediately after the end of the war the liquidation of private banks begun and adaptation of banking structure to new constitutional order started in order to adjust it to new socio-economical and political conditions. Many banks were dissolved, others merged, competition between banks was eliminated. The bank machinery became fully subordinated to the Ministry of Finance. The Narodowy Bank Polski [*The National Bank of Poland*] being the national central issue institution and commercial bank at the same time was brought into being in 1945. As the time run, The National Bank of Poland absorbed every new bank and this process continued till mid-70's. At the beginning of the eighties there were three more na-

tionwide banks except for NBP: The Bank Handlowy [*Commercial Bank*] – dealing with international trade of Poland, The Bank Polska Kasa Opieki S.A. – operating the people's foreign exchange operations and accepting the a vista savings deposits and time deposits in foreign currencies and the Bank Gospodarki Żywnościowej [*Agricultural / Food-Processing Bank*]- specialized in the agriculture credits and being an organizational headquarter that includes 1550 co-operative small- and very small-sized banks in its structure. They were then only formally independent banks, actually they were branches of the NBP's or rather of the Ministry of Finance (to which also the NBP was subordinate for many years- and the President of the National Bank of Poland was the Under-Secretary of Finances).

A kind of breakthrough took place as a result of the economic reform in 1982 resulting in appearance of the Banking Law¹ and the Act of Law on the Statutes of the Narodowy Bank Polski [*National Bank of Poland*]². This Act was the one that contributed to the Narodowy Banku Polski [*National Bank of Poland*] becoming independent of the Ministry of Finance, and to broadening the role of the central bank in shaping the monetary- credit policy as well as to enabling banks being established in form of joint-stock companies including those with foreign capital share. As a result there were three new banks brought into existence since 1982 till 1989. But NBP was still executing its typical monobank functions through its branches, and the state-owned enterprises were linked with the central bank divisions, thus no grounds for competition in bank

¹ Ustawa Prawo Bankowe z 26 lutego 1982 r., Dz.U.1982, nr 7, poz. 56. [*The Act „Banking Law” of 26 February 1982, Official Journal “Dziennik Ustaw” of 1982, No. 7, item 56*].

² Ustawa o Statucie Narodowego Banku Polskiego z 26 lutego 1982 r., Dz.U.1982, nr 7, poz. 57. [*The Act of Law on the Statutes of the National Bank of Poland of 26 February 1982, Official Journal “Dziennik Ustaw” of 1982, No. 7, item 57*].

and economic entities relations field were created.

1989 year is considered to be the breakthrough in the Polish banking system; this year entailed both structural and ownership changes. As a result of introducing the Banking Law and the Act of Law³ on the Narodowy Bank Polski [*National Polish Bank*]⁴ of 1989 the Polish banking structure evolving in previous years was becoming adjusted to the market economy rules and mechanisms.

Passing of new banking law that took place in 1989 enabled adaptation of banking system to market requirements and needs. Owing to the new legislation the grounds necessary for creation of two-stage banking system were established. The Narodowy Bank Polski [*National Polish Bank*] spearheaded the Polish banking system as the superior bank of the State. The NBP has been fulfilling functions of: bank of issue, bank of banks as well as bank of the state and national economy. The result of introducing new banking law as well as aiming at two-staged banking system was separation of nine state-owned banks from the NBP, which were transformed into sole-person companies of the State Treasury, acting as independent, self-financing enterprises dealing with gathering of financial resources, granting of credits as well as financial accounting. Owing to the 1989 Banking Law introduction economic units, natural and legal persons got the full liberty of the bank selection. Institutional conditions to enable competition between banks as well as great possibilities of founding banks in form of joint stock companies, for natural persons, both from the country and from abroad were created.

2. The IT use in retail banking sector in Poland

Last decade have caused rather essential changes in bank sectors which was to a large degree the effect of *Information Technology* (IT) development. The present arrangement of the bank market in Poland has been to a large degree shaped for last a dozen or so years, during which the bank sector has been restructured, privatised and supplied with additional capital, yet the major changes have been happening as a result of IT implementation and spreading. The predominant countries of Europe in respect of economy as well as the United States are leaders in creating new services, bank products, and the principles of working they established often become de facto standards of solutions in other

banking systems. The Polish banking system, similarly as the world one, is subject to similar mechanisms, including globalisation, consolidation and electronisation of activity of financial markets. The effect of this is growing competition in both corporate and retail banking. The growth of competitiveness of banks conducting operations in Poland will depend to a large degree on the IT development.

Retail – banking is the most dynamically developing segment of bank sector in Poland, with private customers being its area of interests. Group of these customers is very diversified as regards wealth, age, expectations, preferences etc. After transformation in 1989 r. the bank retail – customer was underestimated. Services for this sector were rendered mainly by Bank Powszechna Kasa Oszczędności Bank Państwowy [*The Public Savings Fund Society Polish Bank*], whereas remaining banks delivered services reluctantly and to a negligible degree. As the time went by the banks began perceiving a private customer as profit-yielding one. Investigations⁵ in retail financial services sector show that 20% of the best customers generate 100% profit whereas the rest bring losses. The retail – banking has to face the challenge to propose to the rest of clients such services and in such a form that will allow to obtain the income. It seems thus necessary to allocate more means for increasing expenditures for information technologies (IT) at banks that will allow them to reach potential customers, offer the wide assortment of products and to supply them in an inexpensive way, most convenient for the customer.

The retail – banking development in Poland until now, delivered so far by means of electronic media has been the result of close relationship between offering services via internet and growth of the number of bank customers. Although the phenomenon of electronic banking system is very wide as it includes both internet, telephone and terminal⁶ banking it is, however, the internet banking that is of major importance in its development. In the end of 2003 about 1.5 million of individual persons in Poland took advantage of internet banking system (about 23% users of Internet). They opened 2.6 million internet accounts, which is 24% of all savings-giro accounts, and the volume of internet banking transactions reached PLN 6.3 billion per month in 2003⁷. Although the phenomenon of internet banking has existed on the Polish market for only a few

³ Ustawa – Prawo bankowe z 31 stycznia 1989 r., Dz.U. 1989, nr 4, poz. 21. [*the Act on Banking Law of 31 January 1989, Official Journal "Dziennik Ustaw" of 1989, no. 4, item 21*].

⁴ Ustawa o Narodowym Banku Polskim z 31 stycznia 1989 r., Dz.U. 1989, nr 4, poz. 22. [*Act of Law on National Bank of Poland of 31 January 1989, Official Journal "Dziennik Ustaw" 1989 no. 4, item 22*].

⁵ G. Szyszko, B. Śliwczyński (2004): *Elektroniczna gospodarka w Polsce. Raport 2003*. [*Electronic Economy in Poland. Report 2003*], Poznan, p. 72-75.

⁶ Terminal banking, named also self-service enables access to bank account as well as making transaction using electronic devices such, as inter alia.: cash dispensers, electronic terminals to accepting cards, as well as multimedia kiosks.

⁷ G. Szyszko, B. Śliwczyński (2004): *op. cit.*, p. 73.

years nevertheless it is becoming more and more important, which can be proved by continuously growing number of clients. The number of private (individual) customers of internet banking system in Poland grew up by 217% in 2002 year on the average. It is the mBank that recorded the greatest number of private customers at the end of year 2002 – achieving result over 329 thousand customers. Some of the analysed internet banks reached over 200% increase of the private customers number using private internet accounts. It is manifestation of the favourable perception of internet banks.

According to prognoses of the Instytut Badań nad Gospodarką Rynkową [Institute for Market Economics] in bank sector in Poland there should be opened over 3.3 million internet accounts in 2006. Coming up to this prognosis would signify the achievement of ratio of number of accounts in internet to the number of private accounts on 14.2% level, but in relation to 2002 it would mean decrease of interest in this form of making bank transactions by 30%. It may be a result of giving free rendering of services up and introduction of fees for basic services delivered mainly via internet. There is visible low index of internet use in bank transactions in Poland, therefore one should expect great possibilities of development of this market, though many barriers of development are evident. Except for safety, the quality of delivered services and accessibility the level of wealth of society may be the barrier. The internet customers are twice and a half more profit-yielding than customers using only conventional form of banking service rendering. **Pentor's** investigations carried on at the end of 2002 showed that bank internet services are used mainly by men (56%), aged up to 29 years (49%) and 30-39 years (34%), of secondary education level (52%) and university education level (34%). Most often

they are white collar workers (37%), managers (24%) as well as students (19%), residing in big cities with over 200 thousand inhabitants, (46%) earning over PLN 2 000 (59%), representing high social class (39%) and middle social class (30%)⁸.

In comparison with other countries percentage of individual persons using internet services in Poland is still very low. According to research presented in *The Final eEurope + Progress Report*, only 18% of retail customers in Poland declared using electronic banking, on the other hand in countries like Estonia or Latvia it is significantly higher, reaching 75% and 33% levels, respectively.

Owing to use of IT in the retail – banking sector the internet banking system has developed most energetically, though the telephone banking system is a very good complementary solution to it, using both stationary and cellular telephones (the mobile banking); its development is correlated with evolution of cellular telephony. It is foreseen that the annual world number of subscribers of cellular telephony services will grow up on average by 24.4% to 1.8 billion users in 2005. More and more bargain offers placed by operators have essential meaning for development of this market. The West-European banks perceive the mobile banking system as priority of development. It is proven by estimated expenses for wireless technologies, which in total amounted to: USD 12 million in 1999, USD 43 million in 2000, USD 116 million in 2001, USD 254 million in 2002. The mobile banking in Poland is still underdeveloped, though there is also an opinion that this situation can change which is indicated by growing number of persons using cellular phones in contacts with bank. So far bank operations via SMS are most often of passive character, and number of clients using WAP is negligible.

Table 1

Stages of retail-ranking development in Poland

STAGE		CHARACTERISTICS
I	The expansive development	Development of branches and increase of their number
II	The widening of the scale of activity	Satisfying the customers' additional needs, first of all those connected with investing and consumer credits
III	The bank marketing	Development of tools helping retail – banking, recognition of the customer's needs and adaptation of strategy and tactics to them.
IV	The orientation to customer	Creating closer connections and ties with the client, offer adaptation to specific requirements, mass utilization of the technological achievements and know how, beginnings of electronic banking system
V	The new distribution channels	Advanced computerization of banks, phenomenon of <u>macdonaldisation</u> , private banking, electronic banking system

Source: E. Bogacka – Kisiel (2000) *Usługi i procedury bankowe*, [Bank Services and Procedures], Wrocław, p. 35.

⁸ Audyt Bankowości Elektronicznej (2003). [Audit of Electronic Banking System].

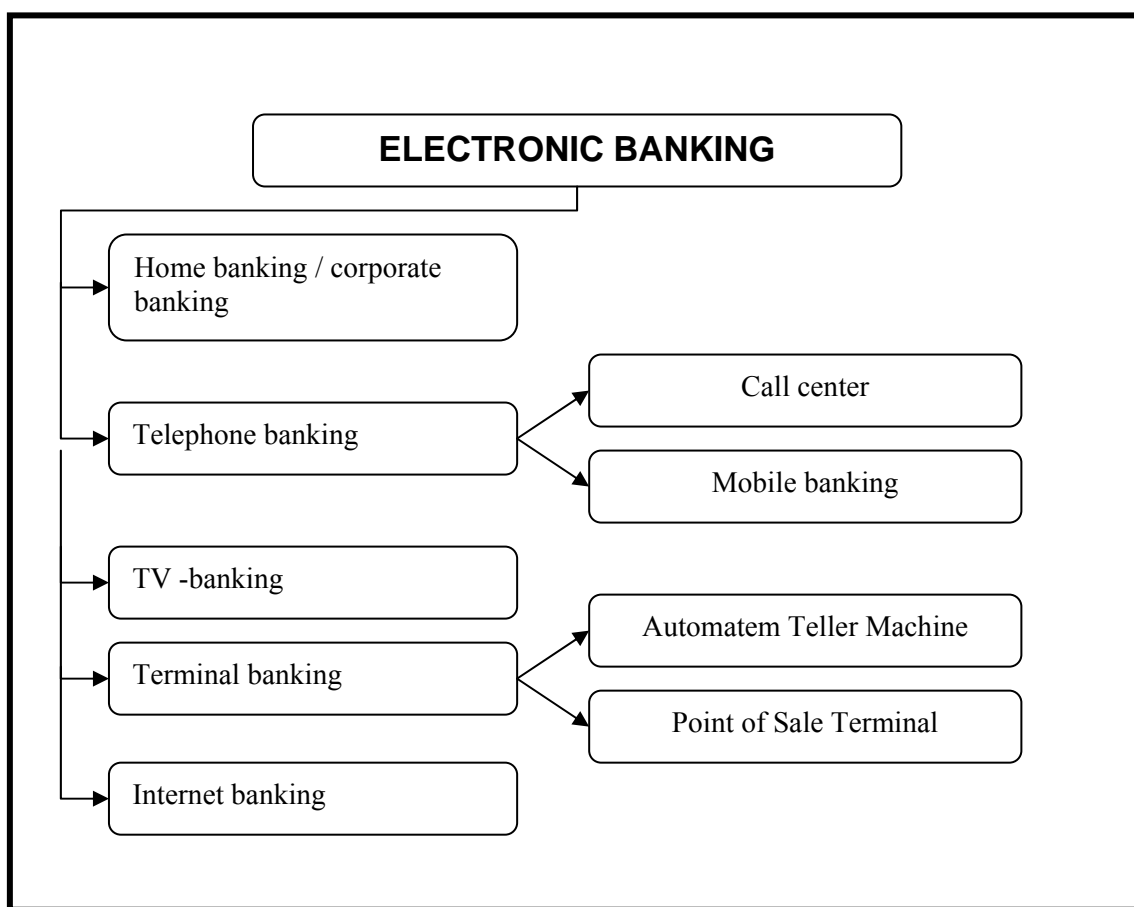


Figure 1. Elements of electronic banking
Source: the authoress' own study.

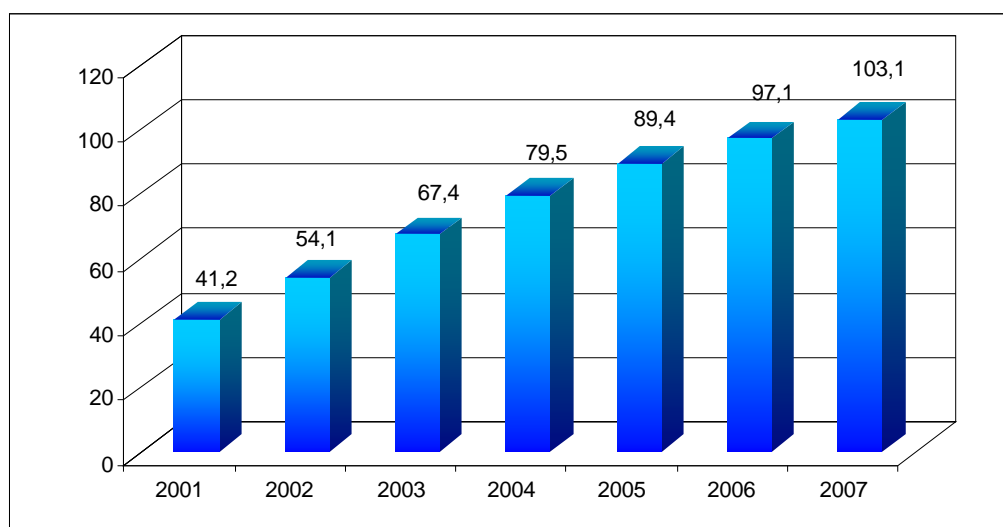


Figure 2. Internet banking users in West Europe in 2001 -2007 (w mln)
Source: Electronic Banking Forum, Warsaw 2003.

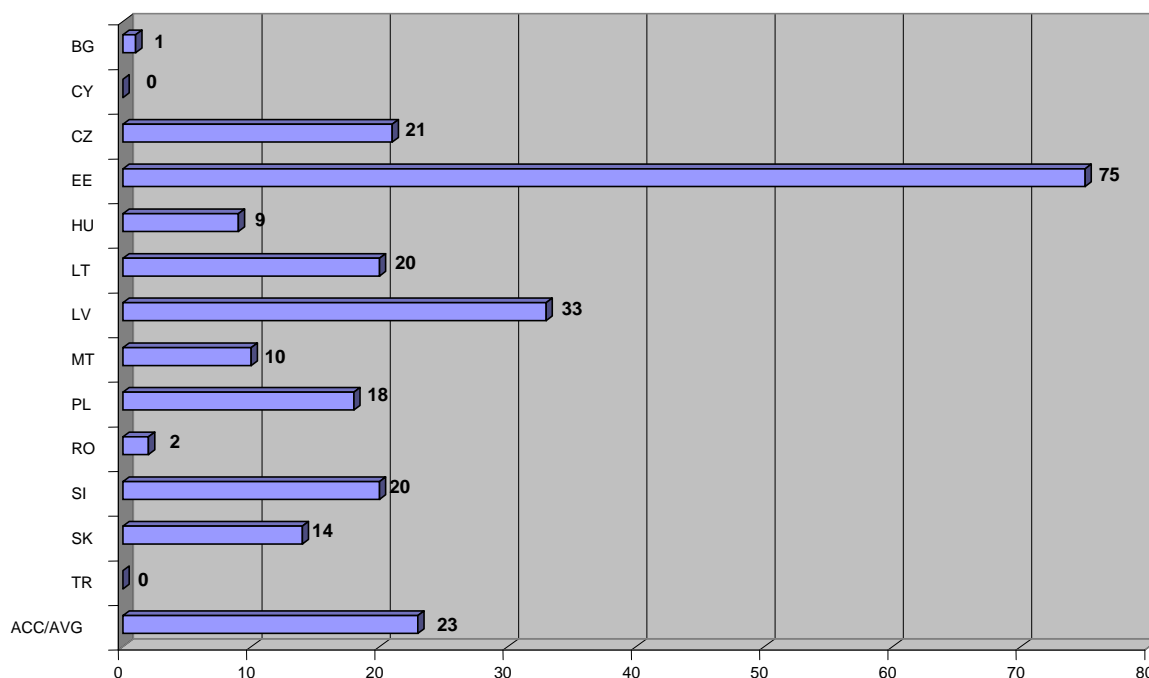


Figure 3. Using Internet in banking system by individual persons in selected countries (%)
 Source: *eEurope + Households Survey*, June 2003, MT; National Survey.

The bank retail – customers most willingly realize operations using cash cards in cash dispensers. In 2002 the owners of cards could use about 7 thou. (6 941) cash dispensers in Poland, and of that the PKO BP S.A., Pekao S.A and Euronet cash dispensers are most often encountered in the streets. Undoubtedly, the PKO BP Bank is the largest retail – bank of the highest number of bank branches, as well as of the most developed and sophisticated cash – dispenser network with its 1 700 cash dispensers in 2002 all over Poland. There are also banks on the Polish market without their own network of cash dispensers. Due to the fact that the cash dispensers are the essential factor of bank competitiveness and they often determine choice of bank therefore some banks take advantage of outsource potential of the Euronet cash – dispenser company. The banks that have not got their own cash dispensers and use potential of the Euronet company include eg.: the Lukas Bank S. A., the Multi-bank S. A., the mBank. Cash dispensers, despite their unquestionable advantages have a basic defect – their introduction involves large expenditures.

3. Electronic banking – strong points, weak points, opportunities and threats

The influence of IT on retail- banking sector transformations can be considered both in economic, institutional and social aspect. The introduction of IT to retail – banking causes among others:

- limitation of costs of realization of banking business from customer’s and bank’s viewpoint,

- easier access to information and easiness in taking decisions,
- reduction of bank staff,
- higher quality of offered services,
- increased number of banking operations,
- possibility of reaching customers from geographically remote markets,
- possibility of introduction of new products and services or their improvement,
- intensification of bank market competitiveness.

In general opinion IT is the factor that creates competitive prevalence. Introduction and skillful use of IT can make profit that resolves itself mainly into reduction of transaction costs and time of processing, higher quality of the customer’s service, the bank efficiency improvement owing to the extension of operating scale, introduction of new products, and maintenance of present and winning of new customers. The thesis about IT efficiency requires, however, verification. Referring to the European Central Bank research on the direct influence of expenditures on IT on profitability growth rate of production factors on the level of individual sectors producing and using the IT (including financial one) in Euro zone countries, published in February 2002, one should submit the matter of positive influence of IT use at banks for intensive discussion. It is commonly thought that introduction of IT to banks is connected with costs decrease . It undoubtedly means decrease of unit cost because the average cost of operation with electronic medium use is considerably lower than that in traditional bank branch. One should, however, ask

oneself question if the reduction of costs due to the IT introduction significantly outstrips financial expenditures incurred on the investment. There is no doubt that the electronic operations are less expensive than traditional ones. It is even so that in many countries

interest on internet credits is lower than that at cash desk. Moreover, the fees of bank orders via the internet are cheaper (or there are not any) than those realized in conventional way.

Table 2

IT in retail – banking sector- the SWOT analysis

Strong points	Weak points
<ul style="list-style-type: none"> – Increase of customer's satisfaction and keeping him in given bank – Lower costs of maintaining bank unit – Possibility of accomplishment in time and place convenient for customer – Competitive conditions of offered products (often lower costs of banking operation – in comparison to bank branch – or no costs at all) – Global range – lack of geographical limitations – the possibility of reaching customers from the whole country, and even from all over the world – Possibility of efficient monitoring of working of a company. – Quick access to bank information – Possibility of quicker customer's service and better adjustment to his needs – Saving of costs of creating complex networks of branches – The elimination of threats connected with traditional crimes, like eg. forging of bank documents 	<ul style="list-style-type: none"> – Loss of lasting character of contacts between bank and customer – Decrease of the customers' loyalty – Lack of branches – the advertising costs – Adaptation of internal computer systems of banks to requirements of internet banking – Lack of suitable hardware and software, both at customers' and at banks' – Expenditures incurred to purchase new information technologies (IT) – Demand for workers of specific and concrete qualifications
Chances	Threats
<ul style="list-style-type: none"> – Energetic expansion of internet – Increased number of cellular phones – Increased number of cash dispensers, points accepting the card, multimedia kiosks – Flexibility of working of bank – Creating information society (the computerization of households and enterprises, computer science for school children- "Internet at schools ") – Possibility of local and regional banks working on global markets – High share of professionally active men 	<ul style="list-style-type: none"> – Low customers' loyalty to the banks in the internet – Low knowledge about electronic banking system – Customers' habits of traditional forms of rendering banking services – Lack of confidence in electronic distribution channels – Lack of access to suitable hardware enabling use of systems of electronic banking equipment – Lack of detailed legal standardisation – Difficulty in adapting to technological novelties – High cost of using internet

Source: the authoress' own study.

Banks have to introduce IT if they want to be competitive and keep their market rating. However, this is connected with investments that will bring a profit only after a longer period of time. Indeed, it results from the research of American consulting firm Booz Alle & Hamilton that the cost of bank operation realized in bank branch 107 times higher, than in case of realization of the same operation via internet. However, there arises a question when banks can expect return of borne expenditures. According to the analysis of period of investment return in internet banking, the expected savings on servicing customers with internet will be obtained when certain number of customers is reached,

which in turn requires longer and intensive activity period in order to increase number of customers using this form of contact with bank. Therefore banks should assume in their business strategy an attitude mainly towards winning clients which is not a simple task in the present competitive times. According to Nicolaus Copernicus University research work, the profitability of on-line account is reached in Poland if monthly turnover reaches PLN 1060 (EUR 247), what at traditional bank amounts to PLN 1298 (EUR 302), respectively. When we analyse the situation taking into account the number of customers the profitability threshold is estimated at the 600 thousand users level. These are very opti-

mistic results because they show that the largest banks have already reached, or will exceed this threshold in the nearest future.

The information technologies (IT) are becoming the key challenge formulated in strategy of retail – banks. They offer higher level of organizational flexibility, they become both the creator of employment as method of its reduction. As a result of IT use in banking system, completely different experts class is required than several or a dozen or so years ago. Today not necessarily higher- educated bankers are needed, they can be even persons with lower qualifications – and at the same time "cheaper " from the bank's point of view – but having computer science (IT) knowledge and abilities. Besides one should take into consideration the fact that in effect of IT introduction to banks the number of *front office* workers dealing with customers direct service gets reduced, whereas number of employed *back office* experts caring for efficient functioning of computer system tends to be growing, though this growth does not balance decrease of staff that serves bank customers directly at cash desks. Therefore when introducing IT to banks one should take into consideration the following:

- the result of growing number the *back office* workers is increase of material input of maintenance of backup facilities complex, maintenance of equipment, electricity, as well as materials, eg. of printing – out paper, ink etc;
- lowering of prime costs does not always occur quickly – it is dependent on e.g. efficiency of the system implementation;
- introduction of computer solutions may be connected with new financial expenditures.

As a result of development of information technologies more and more firms dealing with providing services via internet from outside bank sector appear. Banks have to be aware of the fact that they will have to share market of electronic operations service with these firms. Controversial matter is only the question of future conditions under which they will be competing and conditions under which the electronic transaction service market will be subdivided and shared. As a result of introducing electronic banking instruments by non-bank firms, banks have to take into account sharp price competition, which involves decrease of the profitability of bank activity. Yet banks have the considerable advantage over firms providing e-service. The advantage manifests in that the customers rely more on institution which have already been existing on market. Besides, the banks use the instruments of electronic banking, as one of numerous sources of

profit. They also run traditional cash desk service that reduces the risk of generating losses. Their trump card is that they have already gained customers and now they have to try to do their best to keep them. The banks obviously can charge customers with the part of costs, yet they have to be aware that they can thereby discourage customers and donate them to competitors. As a result of development of information technologies, the role of bank branches will change. They will rather become consulting centres, than places where transaction can be made. J. Wallenberg – the President of the Swedish SEB bank has stated that the role of branches will change. They will be fewer and smaller, employing several persons. However, branches will still be an essential place of customer's contact with bank⁹.

5. Factors favourable to IT development in retail – banking sector in Poland

As basic factors of retail – banking sector development in Poland the following ones can be included :

- lowering the costs of using internet,
- accessibility of internet,
- improvement of net transactions security,
- increased awareness of society,
- making bank offer more attractive,
- increased number of information – promotion and advertising actions ,
- introduction of detailed legal regulations.

One of main factors of more energetic retail – banking development in Poland is making more general access to global network possible, which can involve both lowering of internet access costs and lowering computer equipment costs as well as greater accessibility in public places like the schools, offices and also places of employment etc.

6. Conclusion

The use of information technologies in banking alters the character of bank activity. The consequences of suggested changes can cause far-reaching transformations in processes of creating new services and their introduction on the banking market, as well as in practical procedures of providing services. It in last several years that the automation of services providing has been appearing. For the time being it does not seem that all banks will be replaced by virtual branches because the position of bank post is very strong and probably will not be shaken quickly. One can venture to conclude that in the future the internet and virtual banks will be gaining greater and greater popularity, limiting the number of traditional branches at the same time. Banks will still be present physically, as far as it is necessary and present virtually as far as it is possible. As regards internet revolution, which has become the flywheel of trans-

⁹ Ch. Brown – Humes (2000) 'The dinosaurs are not going to die', *The Banker*, № 3, p. 14.

formations in banking, it may be compared with "steam-engine, electricity or internal combustion engine – it needs time to bear fruit"¹⁰.

There is no retreat from modern information technologies. Thanks to them the postsocialist countries including Poland have got a great opportunity to eliminate the distance separating them from highly developed countries. Wanting to catch up with progress, one should keep investing and advancing forwards. World goes forward, and we should go with it. The express train with "New Economy" engine is sped up so one cannot get out. One wanting to go in one line with highly developed countries, should avail of their benefits because otherwise one will be pushed aside. IT may become great chance for economic growth accelera-

tion. Poland and other postsocialist countries have now better chances of competing both on local and global market. Banks using advanced information technologies have a great chance to gain the competitive superiority and to build the picture of modern banks meeting their customers' needs. Of course, they have to be aware that introduction of this type of services is a long-term – investment, which can bring measurable effects not at once, but one should treat it as a bridgehead into the future, real development both in technological and service sphere. The IT in banking is one of methods of overcoming foreign competition on uniform financial market. The banks that will not bring electronic platform developed have negligible chances of survival on the market.

Table 3
Factors influencing decision as for opening savings-giro account in internet (in %)*

Item	Factors	Number of <u>indica- tions</u>	Frequency of <u>indi- cations</u> N=86
1	Lowering costs of using internet	39	45.3
2	Improvement of internet protections and technical possibilities in Poland	39	45.3
3	Creation of legal and systemic solutions guaranteeing the safety of transaction	38	44.2
4	Reduction of procedures indispensable to use internet	17	19.8
5	Lowering costs of computer equipment	13	15.1
6	Other factors, including:	7	8.2
	– internet access	5	5.8
	– increase of free time quantity	1	1.2
	– change of work of family's head	1	1.2

Source: Research conducted by CBM INDICATOR February 2002. (Indications in columns do not add up to 100% because respondents could simultaneously choose more than one answer.

Table 4
Hierarchy of barriers of internet banking development in Poland

Barrier	Rating
The safety of transaction (felt by customers <u>subjectively</u>)	2.3
Heavy expenses of computer equipment	1.9
Habits of customers accustomed to traditional service (used to paper form of receipt of transaction)	1.7
Heavy expenses of internet connections	1.1
The network small capacity and difficulty in accessing it.	1.0
Conviction, that using internet requires specialist knowledge and skills	0.7
Monopolized telecommunications market in Poland	0.7
The lack of legal and systemic solutions guaranteeing the safety of transaction	0.6

Source: The Institute for Market Economics, Gdańsk, February 2002.

¹⁰ More information: G. W. Kołodko (2002): „Nowa ekonomia”, *stare problemy*, [„New economy, old problems.”] in: G.W. Kołodko, M. Piątkowski „Nowa ekonomia” i stare problemy. *Perspektywy szybkiego wzrostu w krajach postsocjalistycznych*, [„New economy and old problems. Perspective of quick growth in postsocialist countries] Warsaw, p. 17.

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