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The ‘New Economy’ and Transformation of the Banking Sector in Transition Economies

1. Introduction

The beginnings of the development of banks date back to ancient history, but it was only the last decade that brought about significant changes in the banking sectors, which was due to a large extent to the consequence of the development of Information Technology (IT), which represents the foundation of the “new economy”. To a large extent, the current system of the banking market in post-socialist countries was formed in the last dozen or so years, during which the banking sectors were restructured, privatised and received capital injections, although the greatest changes took place and are continuing to take place following the diffusion of IT.

Three phases can be distinguished in the development of the banking sector in Poland, as one of the post-socialist countries:

- phase I – 1990 - 1993 – a period of recession caused by transformation;
- phase II – 1995 – 1997 – a stage of rapid growth and expansion related to the rapid rate of economic growth;
- phase III – 1998 – ... – slow-down in the economic climate.

Major changes took place as a result of the phenomenon of globalisation, which meant that the world - including the banking sectors operating in it - became a global village, within which the barriers to providing trans-border services reduced. Two extreme models of banking systems can be found in the literature on the subject: the Anglo-Saxon model (English and American), based to a large extent on capital markets, and the German model (German and Japanese, known as the continental model), with mainly a pro-banking approach. Globalisation is resulting in the erosion of differences between the banking sectors of the individual countries and therefore a diffusion of banking models is beginning to appear.

2. The significance of IT in banks

The use of computers on a larger scale in banking completely changed its appearance. The move away from services provided manually commenced in favour of the use of the computer in fulfilling banking operations¹. This allowed for the introduction of new tasks, products and banking services; it resulted in work becoming more efficient, which resulted in the volume of banking operations increasing. An example could be the use of computers for sorting cheques (Bank of America, 1956), as a result of which, the number of cheques cashed in the years 1943 - 1952 in the USA doubled from 4 to 8 bn per annum. The introduction of computers led to an automation of banking activities and the replacement of clerks with computers. For example, an employee of Bank of America could manually sort approximately 250 cheques per hour, while a computer would sort 30,000 cheques in the same time, which took over the work of approximately 2,300 people.

Table 1. Phases of introducing IT into the banking sector world-wide

Phase	Period	Introduction of innovations	Operational functions of the innovations
Phase I	1846 - 1955	1846 - the introduction of telegraphic technology 1927 - streamlining of the activities of banks as a result of telephony technology ²	Reduction in international price differences (e.g. between New York and the regional foreign exchange markets) Greater coordination between the head office and the branches (elimination of time differences between geographically distant bank branches)
Phase II	1956 - 1968	The use of computers	Reduction in the cost of work of selected activities (e.g. automation of sorting and processing of cheques)
phase III	1968 – 1980	Development of international payment systems e.g. Visa and MasterCard,	Automation of banking procedures, Diffusion of computers The first real time (on-line) systems

¹ Since 1970 when every customer has his own account.

² The first regular telephone service from New York to London cost approximately 500 pounds (prices as of 1997) for a three minute call.

		Introduction of automatic teller machines,	
phase IV	1980 – 1995	The “IT revolution” – the reaction of IT on all aspects of the internal organisation of the bank, as well as on market relationships	Support of customer contact with the bank through IT - development of alternative distribution channels – telephone banking, EFT-POS, home/corporate banking
phase V	1995 - ...	Reduction in operating costs	Internet banking, virtual banking, banks are seen to be institutions having many banking services distribution channels.

Source: own analysis based on Dziuba D.: *Evolutionary perspectives of banking IT systems. IT in the bank*; in: “The use of IT solutions in financial institutions” - Scientific work of the Oskar Lange Economic Academy in Wrocław –, ed. A. Gospodarowicz, Wrocław 2002, no. 954, pg. 96 – 103.

On the one hand, the use of IT in banking brought about a reduction of the costs of operations in banks, while on the other – the volume and variety of banking operations increased. What had until recently been just a dream became possible. It is possible to carry out significantly more operations in the same time through the development of computer software, as well as introducing new solutions. For example, Clydesdale Bank in Great Britain, which was the first to offer real-time – on-line banking. Through network connections, customers may take advantage of services through a different branch than their own. Furthermore, automatic teller machines have been introduced, resulting in a reduction in the need for bank branches.

3. The “New Economy” with respect to the banking sectors

The indicator of change in the banking sector was and still is the Internet, which represents the tool of the “New Economy”. Banks would not have the functionality at the present level without the use of information technology. Because of this, financial institutions are using increasingly newer IT solutions and are increasing the opportunities for performing larger numbers of operations in a significantly shorter time with a significantly lower number of banking staff committed to these operations and quality being maintained at a similar, if not slightly higher level.

Internet is fulfilling information functions in many areas of the economy. Banking is one of the first areas where the scope of its use is expanded to include the possibility of making

transactions. Internet doubtless represents a continually large information base and it will remain as such, but it is also a medium allowing purchase and sales transactions to take place.

A new type of distribution has appeared, together with the introduction of IT into banking. Today, the model of exclusively electronic banking (*clicks only*) has appeared, as well as the model based on the traditional banking branch. There is no doubt that the position of the latter still holds a strong position and will continue to do so for a long time, however, it is noticeable that there is increasing interest in multiple channel distribution (*bricks and clicks*), i.e. a combination of electronic channels together with a network of fixed branches, which gives the customer the possibility of using banking services in the form that is most convenient for him. Furthermore, bank branches are looking completely different to those of several years ago, since there is a move away from the “temples of banking” in favour of small electronic bank branches providing standard services.

In order to take advantage of the multiple channel model, it is sufficient to have one account to which it is possible to have access both at the cash desk in the bank’s branch and in automatic teller machines, telephones (mobile and fixed line) multimedia kiosks or interactive television, generally 24 hours per day, seven days per week. Research³ has shown that customers most frequently perform transactions outside bank opening times and therefore, electronic distribution channels have the opportunity of increasing their market share, while in future, the traditional functions of the bank branch, which to date has been offering banking services, will change to an advisory role. From observations, it can be concluded that it is precisely the electronic banking service distribution channels that have the opportunity to become the main places for performing banking operations in the foreseeable future. This is important, since the model of delivering products and services and the method of managing the distribution channels determines the level of efficiency of banking operations.

³ Research of the Banking Survey Educational Foundation.

Table 2. Banking service distribution models

STATIONARY DISTRIBUTION	MULTIPLE CHANNEL DISTRIBUTION	SOLELY ELECTRONIC DISTRIBUTION
<i>BRICKS & MORTAR</i>	<i>BRICKS & CLICKS</i>	<i>CLICKS ONLY</i>
<p><u>Trends:</u></p> <ul style="list-style-type: none"> ❖ reduction in the number of branches, ❖ development of self-service branches, ❖ development of specialist outlets with developed advisory functions, ❖ cooperation between the branches and electronic channels. 	<p><u>Trends:</u></p> <ul style="list-style-type: none"> ❖ development of separate strategies for the stationary channels and electronic channels, ❖ own brands in the internet branches. 	<p><u>Trends:</u></p> <ul style="list-style-type: none"> ❖ strong branding policy, ❖ development of stationary branches.

Sources: J. Pietrzak: *Influence of the distribution model on competitiveness*, "The Bank and the Credit" 2002, no. 3, p. 39.

It is believed that the most rapidly developing market segment is retail banking, although it appears necessary to assign further funding to the development of small branches - mcbanks, on the one hand and an increase in outlay on new technologies in banks on the other. This would be assigned to the purchase of multi-functional ATMs enabling the withdrawal of cash and facilitating the fulfilment of the basic operations, which would be related to a reduction in staffing costs in banks, while on the other hand it would increase the comfort of operations carried out. This outlay could also be incurred on the installation of multimedia kiosks and internet banking promotional activities, which could lead to a diffusion of accounts in cyberspace.

Based on research⁴, it is estimated that in order to achieve full saturation of the segment of the services being described, the number of branches should increase by approximately 30 percent and the number of ATMs should double. Apart from retail banking, there are also two potential niches on which to concentrate - the support of small and medium sized enterprises and investment banking. The first of these areas is currently neglected by banks, who are concentrating on large corporate accounts, while the latter will open up as a result of the withdrawal of foreign banks from Poland, as is currently being observed.

3. IT absorption in banks

In order to facilitate the transition from the current stage of development to the developed market economy, post-socialist countries undergoing transformation should support the absorption of information technology. IT, with respect to the changes in the banking sector, can be reviewed both in economic, as well as institutional and social aspects. The introduction of IT into banking results in such consequences as:

- ❖ the reduction in the costs of banking operations from the point of view of the bank and the customer,
- ❖ easier access to information and simplicity in decision-making,
- ❖ reduction in banking staff,
- ❖ higher quality of services offered,
- ❖ increase in the number of banking operations,
- ❖ possibility of reaching customers on geographically remote markets,
- ❖ possibility of improving or launching new products and services,
- ❖ increase in competitiveness on the banking market.

Information technologies are becoming a key challenge that is formulated in the bank's strategy. They offer a high level of organisational flexibility; they are becoming both the creator of employment and the method of employment reduction. The "New economy" in banking already requires a completely different class of specialist than a dozen or so years ago. Today, people are required who are not necessarily highly specialised bankers; they may be people with a lower level of qualifications – and hence "cheaper" from the bank's point of view – but people who have knowledge of computer support. Apart from this, it should be expected that together with the introduction of IT into banks, the number of *front office* staff, who service customers directly, is declining, while the number of *back office* specialists, who supervise the efficient operation of the information system, is increasing, although this growth does not balance the reduction in staff servicing customers at the bank desk. Therefore, by introducing IT into banks, it is necessary to bear in mind that⁵:

⁴ Survey carried out by Nicom.

⁵ D. Dziuba: *Evolutionary perspectives of IT systems in the bank*; in: *The use of IT solutions in financial institutions* - Scientific works of the Oskar Lange Economic Academy in Wrocław – ed. A. Gospodarowicz, Wrocław 2002, no. 954, p. 105.

- ❖ the consequence of the growth in the number of *back office* employees is the increase in the tangible costs of the support team, the maintenance of equipment, electricity and materials, e.g. paper for printouts, toner etc.;

- ❖ costs do not always fall sharply – this depends on e.g. the effectiveness of the system installation;

- ❖ the introduction of IT solutions may be related to new financial outlays.

IT significantly affects the cost structure of banks. It results in a reduction in unit costs, saving time through automation of transactions, as well as savings from the point of view of the customer. The cost of transactions performed in the traditional bank branch is significantly higher than in the virtual bank.

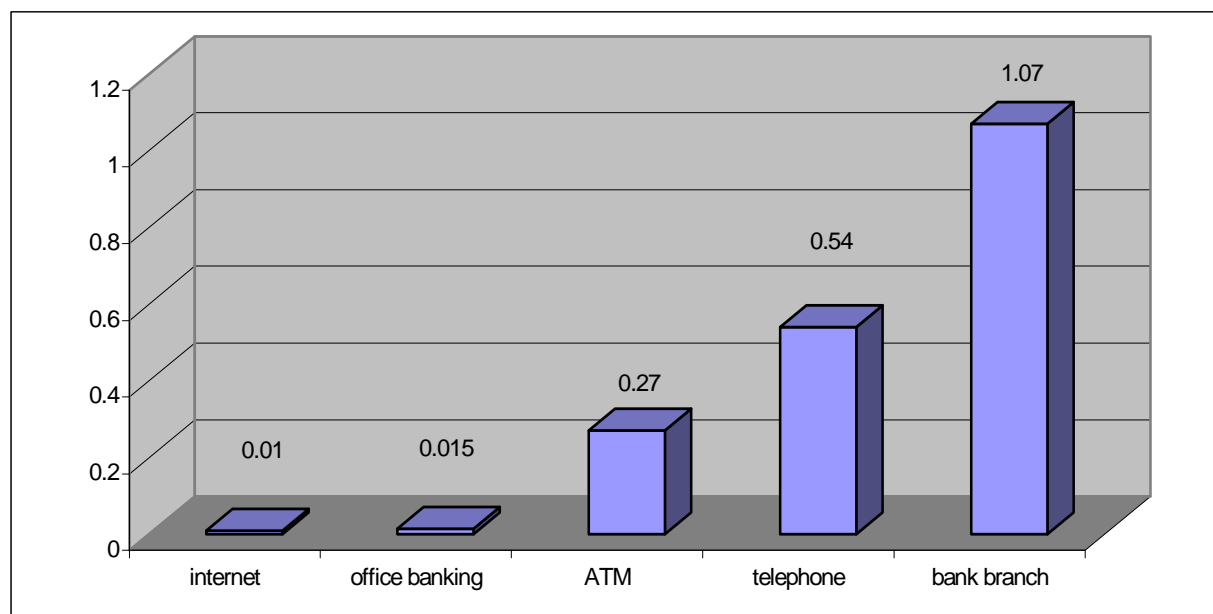
Table 3. The structure of costs of servicing accounts in the traditional bank branch and the virtual bank

	Servicing of accounts in the traditional bank branch	Support of accounts in the virtual bank
Cost of servicing the account	USD 118	USD 43
IT technology	13%	39%
Non-branch distribution	13%	35%
Fixed costs	11%	-
Costs of network support	-	14%
Real estate	30%	12%
Staffing	33%	-
Total structure	100%	100%

Source: D. Dziuba: *Evolutionary perspectives of IT systems in the bank*; in: *The use of IT solutions in financial institutions* - Scientific works of the Oskar Lange Economic Academy in Wrocław – ed. A. Gospodarowicz, Wrocław 2002, no. 954, p. 104.

It is commonly believed that the introduction of IT into banks is related to the reduction of costs. Doubtless, it means a reduction in unit costs, since on average, the cost per operation using an electronic medium is significantly lower than in the traditional bank branch. The question should be posed, whether the cost reductions caused by the introduction of IT is large enough that it significantly outweighs the financial outlay incurred on it.

Figure 1. Average cost of banking operations (USD)



Source: Own analysis based on: J. Pobierajło: *Electronic banking*, "Bank" 1999, no. 5.

The general opinion is that IT is a factor for building competitive advantage. The implementation and skilful use of IT can bring benefits, which to a large extent boil down to the reduction in transaction costs and processing time, higher quality of customer service, an increase in the effectiveness of the bank as a result of the larger scale of activities, the introduction of new products, and also the attraction of new customers and retention of existing customers; it therefore affects the competitive position and the capability of maintaining this.

The theory about the effectiveness of IT, however, should be examined. According to the surveys of the European Central Bank on the direct influence of IT outlay on the rate of growth of profitability of factors of production at the level of the individual sectors producing and using IT (including the financial sector) in the countries in the Eurozone, published in February 2002, the issue of the positive effects of the use of IT in banks should be subjected to intensive discussions.

There is no doubt that IT is necessary in banks and that without it they are unable to operate. The question refers only to the business effect in the form of profit from IT outlays. The significance of IT in banks is illustrated by the example of the telegraph that was introduced in 1846, which reduced the time to send a message from 10 days to 5 minutes

(Great Britain – Australia, 1871), which enabled costs to be reduced and increased the effectiveness of the work of bank branches. Currently, communications between banks last several seconds.

It is possible that the Internet revolution, which became the springboard for changes in banking, could be the same as the “steam engine, electricity or the combustion engine – time is needed to bear fruit.” The effects in the form of improved efficiency of work appeared after forty years...⁶

IT allows local and regional banks to operate on the global market with relatively low costs in comparison with what would be possible before the development of the “new economy” and the wider use of IT. Because of the development of new distribution channels for banking services, there is a possibility of reaching customers from outside the region in which the bank branch is located. Local and regional banks have the opportunity to enter the national market in Poland while national banks can enter the international market.

Table 4. Start-up costs of virtual entities (mill. euro)

Entity	Start-up costs
Egg ⁷	310
First-e	58
IKANOBanken	25
OnBanca	20
Sainsbury’s Bank	47
VW Bank	30
VirginOne Bank	30

Source: The Banker, March 2000, p. 11.

The introduction of the electronic signature in some respects can facilitate the faster development of banking operations through the use of the Internet. The act on the electronic signature that has come into force has so far not had a significant effect on the development of internet banks, although it is considered that its effects may be significant in the near future.

⁶ See further: G. W. Kołodko: “The New Economy”, old problems, in: “The New Economy” and old problems. Perspective of rapid growth in post socialist countries, ed. G.W. Kołodko, M. Piątkowski, Warsaw 2002, p. 17.

⁷ Egg is the largest virtual banking project in Europe.

The appearance of the act on electronic payment instruments gives the green light to the introduction of electronic money. In this light, the question can be asked: how will it change the face of the currently functioning system in the banking sector in Poland? How will such matters as issuing this money or depositing the obligatory reserve etc. be resolved? Additionally, will this form be accepted by society and does it have the opportunity of developing into a wider scale?

Conclusion

The diffusion of the Internet is changing the shape of the commercial activities undertaken, and in particular banking, which is at the forefront in this respect. Increasingly frequently, there is talk today of virtual organisations, although to a large extent this is more a question of theory than practice. Even so, without doubt there is a place for the development of banks in the cyberspace. A dozen or so banks are operating in 2003 in the Polish banking sector providing services through the Internet and other electronic media. Although banking in the Internet is developing well, it is noticeable that in post-socialist countries, the greatest opportunities for banks are open to the banks using the multiple channel model of providing banking services.

There is no turning back from the modern information technologies, which represent a tool of the “New Economy”. Because of these, post-socialist countries have the enormous opportunity of eliminating the distance separating them from the highly developed countries. This difference is not so large in banking as in other areas of the economy, and moreover, there are many changes in this area; it is even possible to say that the thing that is constant in banking is continuous change. Therefore, in order to keep up with progress, following that which the “New Economy” brings, it is necessary to invest continuously and constantly take steps forward. The world is moving forward and we should follow. An express train with the locomotive of the “New Economy” is running so quickly that there is no way of getting off. If there is a will to move forward in the same line as the highly developed countries, it is necessary to take advantage of its good deeds, or otherwise we shall be threatened with being pushed into the sidelines. IT can become a major opportunity in accelerating economic growth. Poland and other post-socialist countries have greater opportunities than presently to compete on both the local market and the global market.

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