

UNIVERSITETET I
NORDLAND

BE 309 International Business and marketing

Master thesis

Competitive positioning of commercial banks on the base of
innovative banking services and technologies.

Case Study in Russia

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Bodø 2012

Acknowledgements

The master thesis is written as the final assignment of the Master of Science in Business program and International Business and Marketing specialization.

We would like to thank our supervisor Professor Tor Korneliussen for his responsive attention, valuable comments and constructive critics.

We are also very grateful to the representatives of different organizations, who participated in provided interviews. The primary data would be impossible to gather without their collaboration.

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Bodø 2012

Abstract

This research discusses the competitive advantages that commercial banks get from the usage of innovative technologies. The technological change and financial innovation that banking sphere has experienced during the past years is discussed in the first place. This thesis gives the understanding of such innovations as an online banking in the modern foreign banks and their possible application in Russia and influence on the competitive positions of banks on the Russian banking market. The current state and prospects in development of Internet technology in Russia, the obstacles and problems of its development are discussed on the base of broad literature and statistical review.

Furthermore, the study seeks to get a deeper understanding of the ways the banks improve their competitive positions with the development of innovative internet banking services and the use of new technology strategy in the banking sector. In order to answer the research question case studies are conducted using several interviews with managers of the three largest Russian banks, directly participating in the choose of the strategy of internet usage these banks are: VTB Group , Alfa-Bank and Citibank. During the analysis the propositions are proven that the widespread introduction of new technologies provides credit institutions with significant increase of their efficiency, expand the range of its services, improvement of their quality and helps to inform the widest possible range of consumers.

Key words: Competitive Position and Advantages, Innovation, Internet, Distance–Banking, Strategic Development

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List of abbreviations

B2B-Business-to-Business

B2C-Business-to-consumer

CB- Commercial Banks

CBR- Central Bank of Russia

EDI-Electronic data interchange

POS- Point Of Sale

NGO- Nongovernmental

Introduction

The aim of this chapter is to present a clear idea about the key issue of concern of this research and why it is worth studying. In the first place, the introduction is supposed to show the motivation under the importance of the subject. Next, the problem statement and the purpose of the study are provided. The structure of the research is included after that.

Background of the study

In a globalized world where the Internet has transformed the way we do business, the financial system could not keep up. Incorporating new information technologies in banking services, which are altering the traditional definition of product, market and customer, and have changed the global banking, Internet banking developed as means of communication between banks and their clients whether natural or juridical to conduct transactions online at a time and cost to users, optimizing their resources. Internet banking have significantly reduced the barriers to entry, accelerating bank disintermediation (Ortiz, Fernanda, 2002).

The development of information technologies brings change in different spheres of people life. New telecommunication solutions are currently able to integrate various subjects and objects of the world financial market placed in different parts of the globe and make it possible to perform business tasks more effectively. Among spheres touched by telecommunication revolution are:

- Global Internet-marketing including methods of goods and services promotion;
- Electronic commerce which includes the trade exchange of products that are paid for in electronic form;
- Distant and virtual services connected with consulting, legal support and accounting services;
- Merging activities of specialists in different areas of finance situated in different parts of the world.

Such elements of digital economy create a constantly increasing share of gross world product and gradually change the way modern banking and financial business is conducted.

Electronic market not only gives an opportunity to reach territorially distant clients but also allows to define the category of customers that may be interested in certain products and services. An important factor that shows new service models is a comparatively low cost of service which opens global markets for small and middle business. But, it could increase the competition and variety of supplies on the market (Tedeev A., 2008).

It is important that for the modern economy banking and banking-like activity became more important rather than banks as an organization type. So using all the possibility of electronic card or electronic payment could be overtaken by other participants of the market such as telecommunication operators. To keep their position in financial sphere banks need rapidly adapt to conditions of the new environment.

Most of banking activities undertaken to develop payment systems are directed at two goals at once. First one is an adaptation of existing financial products to requirements of financial market, second is concerned with expanding market share or even pushing competitors out of the playing field altogether. The development of new technologies happens rapidly and banks find themselves under pressure from young and flexible technology companies that easily adapt to new models and conditions and through electronic channels and carriers reach potential clients. The idea of virtual banks and financial organizations is already researched, moreover, in some industrialized countries there are already practical realizations of such concepts. Therefore, to stay competitive on the market with harsh competition between both traditional as well as new forms financial institutions banks have to constantly refine their methodology and instruments (A.Turetskaya , 1999).

According Nikolaev A. (2001), nowadays one of the main factors for successful activity of banks is a policy of continuous innovation. This statement follows from a number of assumptions that characterize the currently used state of the economy. First reason, the relationship with clients based on partnership. This in particular means that the banks are committed to not only maintain, but also the capital increase of its customers by offering new services that contribute to the expansion of financial and business operations, reduce costs, business development and enhance its profitability. The second reason for the emergence of new types of banking services is competition between banking institutions in market conditions. In order to survive in the market requires multi-variant and

innovative business solutions, unconventional business operations, innovation in all areas of the bank. The third reason is the development of costly new banking technologies. It is scientific and technical progress, recognized worldwide as an essential factor in economic development is increasingly linked with the concept now of the innovation process.

Considering nowadays economic situation (increasing global competition and rapidly changing organizations) it possible to conclude that an organization's ability to innovate is regarded as a key factor for success and often for mere ongoing survival (Shipton, 2006). However, innovations in the banking business includes not only technical or technological development, but also new forms of business, new ways of working in the market, new products and services, new financial instruments. According to Vikulov V. (2001), innovations characterized by a high technological level and higher consumer qualities of goods or services over the previous product. In addition Semikova P. (2008) states that the innovation is the key factor for stability of the banks and ensure their economic growth. Thus, there are three challenges facing banks in the current economic situation:

First, a wider range of banking services - payment, commercial, investment, in order to attract customers. Second, the introduction of high-tech modern equipment (such features are available only for major Russian banks). Third, the professional development of bank managers.

According to Muravjeva (2008), the widespread introduction of new technologies provides credit institutions to significantly increase their efficiency, expand the range of its services and improve their quality and to inform the widest possible range of consumers. Undoubtedly, the innovation process encompasses various aspects of activities of banks: introduced innovative banking products, the structure of banks and the system of internal control etc. Semikova (2008) states that one of the main features of a modern banking system is the rapid development of computer and telecommunications equipment. Development of communication tools, development of network technologies allow credit institutions to complex automation of all its activities, to develop mechanisms for remote customer service and offer a new range of services. Information systems have a significant impact on the profitability of credit institutions, their competitiveness and attractiveness to customers.

Today Internet banking is one of the most promising new applications of Internet technology. Management of bank accounts via the Internet is the most dynamic and representative area of financial Internet solutions, in view of the most wide range of financial (in this case banking) services available in the Internet banking system. Such systems can be a pillar of telecommuting in the securities market and insurance remote, because they provide the carrying out of calculations and control of all participants in financial relations (Muravjeva, 2008).

Exploiting the new communication/transaction channels offered by the Internet, in the last five years the number of bank websites has increased rapidly. Nowadays there more than 1,500 sites of banks from all over the world are available online . The majority of banks with Internet presence are from the USA, while in Europe the largest number of banking websites are in the UK, Germany, Spain, Italy and France.¹ (Journal of Financial Services Marketing, vol 6, 2002).

Today, with the Internet banking systems, it is possible to buy and sell non-cash currency, pay utility and other bills, pay for Internet access, mobile services, to conduct cashless intra-and inter-bank payments, transfer funds from between accounts and to monitor all banking transactions on any accounts at any time.

Global tendency of individuals' online payment could be traced very clearly: for ex in US about 20% of households are making all their payments online, in European countries (for ex. in Sweden) more than 50% of bank clients are actively using online banking services.

Up to 80-90% of transactions go through remote channels of communication. By the way, it is had been noticed that an average customer who uses online banking is more active, and makes more operations than in the bank office. Maybe the comfort plays a big part as well – people don't need to walk or drive to the bank office, to stand in queues. Access to operations is possible at any time, clear menu trigger to try different types of services.²

¹ Journal of Financial Services Marketing Vol. 6, 4, 362–378 # Henry Stewart Publications 1363-0539 (2002)

² ³ <http://bankir.ru>, Internet Banking - a new form of the old service 06/14/2010

In Russia, the number of active online banking users is about 2 million people. However, a lot of them use internet banking only to check the balance on their bank accounts. There are 40% for intra-transfers of the active operations of customers internet banking account (mostly between their own accounts), 40-50% - for payments already created templates (paid mobile and fixed phones, pay for internet, for utility services, commercial television, etc.).

Turnover of Internet banking in Russia in 2009 was variously estimated from 28 to 40 billion rubles. For comparison – POS (Point Of Sale) terminals in 2009 raised about 650 billion rubles³. Most users of online banking today - at Alfa Bank, "UralSib", VTB 24 (over half a million users each bank). However, the market is always changing, and the entry of the Savings Bank, given the multiplicity of its customer base, it can make a difference.

Russia financial market infrastructures have evolved rapidly in response to economic growth, technical innovation and regulatory initiatives. These changes will increase the Russian payment system's efficiency and bring it into line with international standards (CPSS – Red Book – 2011)⁴.

In these days we are observing the transformation of the international financial system as a global information and financial complex, featuring a tough competition. To survive in these conditions the Russian banks need to focus on the latest technologies and products. It is necessary to stress that implementation and use of electronic payment mechanisms is very promising, it is increasingly widely implemented in all areas of financial practice including banking. Provision of electronic services through electronic mediums such as Internet increases attractiveness of a bank for its clients since it becomes possible for them to perform all the necessary operations directly from their office or home. Considering the rapid development of information technologies and opportunities offered by Internet it is possible to state that the topic of this project is very relevant.

⁴ **Payment systems in Russia** Prepared by the Bank of Russia and the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries September 2011

Problem statement

This subchapter formulates problem statement of this thesis and come up with the research questions, provides discussion about research value and possible limitation.

Currently, Russian banks provide the implementation and adaptation of foreign technologies. At present the Russian banking sector could develop much faster, taking over foreign experience and innovation, and proven effectiveness. Russian Banking Sector Development Strategy until 2015 connects prospects of the banking system and increase the competitiveness of the Russian financial sector as a whole with the improvement of methods of conducting banking activities through the use of advanced information technologies.

The widespread introduction of new technologies provides credit institutions to significantly increase the efficiency of its work to expand the list of their services, improve quality and bring the widest possible range of consumers.⁵ Undoubtedly, the innovation process encompasses various aspects of activities of banks: introducing innovative banking products, the structure of banks and internal control systems and so on.

Despite the growing interest in the introduction and development of Internet banking, there is little research being done on the implementation of Internet banking in transition economies. Most of the papers dealing with this subject present only general information, but today's realities require new scientific approaches to investigation of the influence of internet technology on the banks and their competitiveness. One of the main issues of our maser thesis is the development of foreign banks such innovations as Internet banking. The introduction of this innovation in Russian banks is an urgent need to survive in international competition. This is a chance to compete. Therefore, this research also explores the development of internet banking in Russia by the adaptation of foreign experience and its influence on the competitiveness

⁵ Statement of the Government of Russian Federation № 1472p-P13, the Bank of Russia on 05.04.2011 № 01-001/1280 'On Banking Sector Development Strategy of the Russian Federation until 2015 "

There are still many issues that require further development. It is difficult to find any literature about features of Internet technology as a technical and economic condition which underlie the new areas of banking business, the consequences of its application to the banking sector as a whole and of individual banks, both abroad and in Russia. The terminology in the field of economic research is not well established and requires further clarification and systematization Muravjeva (2008).

Online banking, which is straightforward in a developed economy, might be different and more difficult in a developing country, requiring specific objectives and additional costs. Thus, lack of scientific problem elaboration, the undoubted practical significance for Russian economy determined the choice of research topics and defined its purpose.

The purpose of this thesis is to investigate the current state and prospects in development of Internet technology in Russia and its usefulness for the banking services. This research is devoted to such innovations as an online banking in the modern foreign banks and their possible application in Russia and influence on the competitive positions of banks on the Russian banking market.

The Problem statement has been formulated in the following way:

What are the directions of the development of internet banking services in Russia and their influence on the competitive position of banks?

In this research we concentrate on innovative internet banking services. In the beginning of the work with this thesis it is important to get more knowledge in this field in order to facilitate the research and improve knowledge about the Internet banking services in Russia. In order to approach research problem in a good way, it is necessary to overview the literature and articles in order to work out a theoretical and methodological approach to the investigation of innovations in foreign banks, internet banking in the modern foreign banks and their possible application in Russia.

The main objective of this study is to analyze internet technologies that are currently a main force that moves forward the development banking and financial systems in foreign bank, as well as in Russia. This study focuses on international experience (internet banking and financial systems in foreign bank) and its adaptability to the Russian environment.

In order to answer the question and to reach the aim of the research the following tasks should be undertaken:

- ✓ On the basis of literature review the phenomenon of innovation in banks in general should be analyzed and then the study of their characteristics abroad should be given. Particularly banking innovations related to the Information Technology and the main trends of the banking sector in the world economy will be identified. Based on the review of the legislative acts the main legal aspects of regulations of internet technologies in banking sphere will be listed. The definition of competitive position and competitive advantage will be presented.
- ✓ The characteristics of modern state of Russian banking system and brief overview of Russia's payment system and the stages of its development will be described on the basis of current statistics, marketing researches and periodicals.
- ✓ The research of the banks chosen for the case study will be prepared, basing on the theoretical background the questions and plan for the interviews with the specialists from these banks will be made and after the interviews are conducted the analysis will show how the modern banking system Russia is developing and what technologies the specialists see as the most prosperous and important for the strategic development of their banks and for gaining the advantages against the competitors.
- ✓ The main tasks of Internet banking in Russian banks that should be helpful to gain the stronger market position will be identified and the advantages that they have for the banks and their customers will be listed.

Relevance of Research and Motivation

It is necessary to notice that the role of the Internet technologies and services is still not clear to many commercial banks and the results they will bring are still the question: additional risks and costs or potential for the development and attraction of new clients. The subject of research is the sphere of electronic banking and development that they get in the previous years and the influence that these technologies have on the competitive position of banks in the market. The description of these factors will be of the great interest to many credit organizations and commercial banks and will help them to reveal new approaches to make stronger competitive advantages and to attract new customers.

While conducting this research, the primary interest was to understand the new modern approaches to banking services such as distant service. It is important for the improvement of customer services to describe the services that are available in Russia now and to compare them with the technologies used in other countries. Therefore this work reveals the main characteristics of the banking sector in Russia and the level of development of Internet technology.

Research Limitations and Further research

Defining the limitations of the research is one of the important parts of the work of researcher, because the research only makes sense when the data collected is reliable and valid. Reliability of the study is connected with the accuracy of the measurements and the transparency of the research methods (Easterby-Smith, 2008).

The study has a number of limitations which should be described. The empirical data for study was collected through the in-depth interviews with the specialists who work in banks and have competence in the studied area. The records of the interviews were made to help to achieve the accuracy in the interpretation of the data. But the selected research method sets the researcher in the situation when the findings are limited by the gathered opinions. The opinions of the interviewees can affect conclusions and course of the analysis. Not only the primary data, but also the secondary sources are used in the analysis. The secondary data was

gathered mostly through the Internet from the well-known web sites of the periodicals and the studies. However, the research of the secondary data and previous studies can affect the opinion of the researcher.

The literature review has shown that there is a lack of research in the sphere of banking services and the lack of the formalization and typology of such factors, therefore this paper aims to formalize the knowledge that was already gathered with previous researches, to contribute to theoretical knowledge about banking services in Russia and will be applicable for future researches. The study would primarily help the banks in Russia to better understand what factors contribute to the satisfaction of their clients and show the perspectives of using new technologies in the banking sphere.

The study is aimed to describe the variety of banking services in Russia and in the international experience. The research of international experience can show what international practices can be used in Russia. Moreover, this paper is made with the intention to be applicable for the further researches in the field of internet technologies in Russia and innovative banking services, as it shows a wide overview of the current literature in the topics. This research has also the prospect of giving a contribution to the various researches that have already taken place for companies in Russia and of raising new research questions for future projects.

Disposition of the thesis

The introduction part of this master thesis is followed by the five chapters including theoretical frame of reference, methodology, empirical part, analysis and conclusion. The thesis is organized in the following way:

- Introduction gives an overview of the research background, formulate the problem statement and comes up with the research questions, provide discussion about research value.
- The theoretical part of this master thesis considers the theories, notions and guidelines which are going to be a basis for analysis of empirical data.
- Methodological part deals with the construction of the research design, methods data collection, their sources and methods gathering. In the end it will discuss the issues of reliability and validity of the thesis.
- The analysis part represents analysis of the interviews and collected empirical data presented in the empirical chapter of the research in order to answer for the main question of the research the empirical data, based on theories presented earlier.
- Conclusion represents the findings of the study, answers to the research question, provides pragmatic suggestions for Russian financial and banking businesses with regard to implementation and deployment of innovative banking technologies, suggests possible development paths and proposes ways of expanding financial services range.

Methodology

The main purpose of this chapter is to present the methodology which underlies this study and provides the theoretical basis for the chosen research strategy and methods. First, the philosophical position of research will be considered and explained how this position influences the choice of method. Then the research approach will illustrate the research design, which describes and explains types of the research strategy chosen.. It also will give an account for what kind of methods are used, qualitative or quantitative and move to the data collection methods with following description and explanation the kind and ways of data gathered. Further the validity and reliability of the research is discussed. In the end it will consider question of ethics and an overview of this chapter in summary is given.

Philosophical position

This part of the work describes the philosophical position or paradigm of the research which forms the foundation of this research and describes how the knowledge is acquired.

Understanding the philosophical position of the research is very important for the researcher, because it will influence and determine further considerations. Also a clear strategy facilitates to deal with every step of the research and also in regard to the changing context thought the whole process (Reznichenko, 2010). The term paradigm refers to the progress of scientific practice based on assumptions of people about the world and the nature of knowledge, which in context of the research stands for a way to conduct it (Collis and Hussey, 2003). Awareness of philosophical assumptions will help to clarify research design and understand not only what kind of evidence is required and how it should be gathered but also provide answer to the basic research question. In other words a research paradigm is the identification of the underlying basis that is used to construct a scientific investigation. (Trochim, 2000).

Traditionally, the field of management science was dominated by research applying methods and techniques developed in the natural sciences. Easterby- Smith et al, (2008) identify three philosophical approaches of how social science should be conducted:

- Positivistic approach – believes that the social world exist externally and that its properties should be measured through objective methods; the object of study is independent of researchers; knowledge is discovered and verified through direct observations or measurements of phenomenon (Easterby- Smith et al, 2008). According to Denscombe (2002), positivism is an approach that seeks to apply the natural science model of research to investigations of social phenomena and explanations of the social world. Auguste Comte (1853) made two assumptions: first one is that reality is objective and external; second one is that the knowledge is only of significance if it is based on observations of this reality. For Comte both social and natural science were limited to, and united by, the value-free observation, description, explanation and prediction of external world.

There will be no experiment that will be provided or observed in this research, so this philosophical approach is not applicable for this study.

- Social constructivism- believes that “reality” is determined by people rather than by objective and external factors, and hence it is most important to appreciate the way people make sense of their experience (Easterby- Smith et al, 2008). Social constructivism focuses on meanings, to go to into depth of phenomenon, increased general understanding of situation through interaction and conversation. The researcher is a part of the studied society and should not be excluded from it.

This approach can't be used in this research, because it will be made from outside, the researchers will not be involved as a part of the studied society and are able to analyze only from outside.

- Relativist position appeared from two approaches described above and lay somewhere in between the two contrasting views, Positivistic approach and Social constructivism. Like positivism, it assumes that scientists should be involved in the process of cognition and the process of discovery influences the result of the study. Also it claims that the feasibility of theory may “vary from time to time and from place to place” (Easterby-Smith et al, 2008).

The main aim of relativist study is to exposure the truth. According to Easterby-Smith (2008), it is necessary to adopt multiple methods of research and survey viewpoints and experiences of large samples of individuals in order to provide an accurate indication of the underlying situation. Thus the truth should be determined through consensus between facts,

collected from different viewpoints. The main objective of this study is to observe and analyze the current state and prospects in development Internet technology in Russia and its usefulness for the banking services. Regarding the purpose of this thesis this study focuses on international experience (banking and financial systems in foreign bank) and its adaptability to the Russian environment. The relativist approach helps to accept value of multiple data sources and thereby grants greater efficiency by including outsourcing materials and opinions (Easterby-Smith et al, 2008). From this perspective we argue that the relativist position approach could provide a deeper understanding of the research question. For example, when people will be interviewed about the innovative internet banking services used in Russia, they will give different qualitative data as answers, but this data can be analyzed and the final complete picture of current condition can be formed.

Therefore, social constructionist position underlies this study. It helps to understand and interpret according to the existing theories given situation in an attempt to explain the found opportunities and perspectives of using new internet technologies in Russia and evaluate the effects on the competitiveness of banks. As it was mentioned Social constructivism focuses on meanings, goes to into depth of phenomenon, increases general understanding of situation through interaction and conversation (Reznichenko,2010). Through this approach the problem is viewed from the meanings and thinking of different people and their experiences in this sphere. From this perspective the social constructionist approach will provide deeper understanding of the research question to the researcher.

Research design

The main purpose of the research approach is to take out the findings from the frequent, dominant or significant themes (Thomas, 2003). The knowledge can be created through inductive and deductive methods. Induction is usually described as moving from the specific to the general; based on empirical observation and evidences, while deduction begins with the general and ends with the specific and more concrete (Punch, 2005); arguments based on experience or observation are best expressed inductively, while arguments based on laws, rules, or other widely accepted principles are best expressed deductively.

In this research deductive approach will be more appropriate than inductive, because this method will help to start gathering information with well defines questions and objectives, derived from theory.

Research design is a statement, which explains and justifies what data is to be gathered, how and where from, it also shows how the data will be analyzed and answer the central questions of the research (Easterby-Smith, 2008). Gummesson (2000) specifies three types of research: explorative, descriptive and causal. *Explorative studies* are applicable when the aim of the researcher is to explore phenomena in new light or to discover the nature of a problem (Guseynova, 2010). *Causal studies* search to establish causal relationships between two or more variables and to explain the cause-and-effect the relationships between the variables (Saunders et al., 2000). *Descriptive studies* aim to show the scope of the problem, process, profiles of persons, events or situations in a precise and detailed way.

Implementing combination of descriptive and explorative research will give the overall configuration of research in order to provide good answers to the key question. Thus this research is going to be *descriptive*, which involves the collection of data in order to test hypotheses or to answer questions concerning the current status and future predictions about subjects of the study. This study seeks to investigate the current state and prospects in development of Internet technology in Russia and its usefulness for the banking services. Moreover, the study going to be *explorative*, which can be performed by using a literature search, surveying certain people about their experiences, focus groups and case studies.

The main objective of this study is to analyze internet technologies that are currently a main force that moves forward the development banking and financial systems in foreign bank, as well as in Russia. In addition, this research is founded on a detailed research and the 'Russian' practices are going to be explored, discovered and discussed. This study focuses on international experience (internet banking and financial systems in foreign bank) and its adaptability to the Russian environment. Thus the following tasks should be undertaken:

- Based on the experience of the economically developed countries to identify key areas innovation activities of foreign banks and make a systematization of banking services abroad;
- Review the status and level of development of internet banking in Russia;

- Clarify the consequences and prospects of internet banking in Russia and to develop proposals toward at further expansion of its scope on the basis of the international experience.
- Determine the aspects of the internet banking services that influence the competitive position of banks in Russia.

Research strategy

The choice of research strategy depends of the philosophical understanding of the research problem and genre of research. While creating a research strategy, it is necessary not only to decide, how the data will be collected, but also explain the way the collected data will be analyzed and how that will help to find answers to the main questions of the research.

There is a large variety of possible research strategies such as action research, case study research, ethnography and grounded theory action research. Among all these types, case study was selected as the research strategy. The reason of this choose will be discussed in more details later, first of all it is needed to pay more attention to the main aspects of case research strategy.

According Yin (1994) case studies can combine different data sources and serve various purposes, but what is important for a successful one is that a researcher pays equally high attention to the following: the research question (how/why); theoretical framework; clear aim; logic between data and theory; key elements for results interpreting. Case studies can be designed in the ways consistent with any of the philosophical positions (positivism, relativism and constructionism); Soy, (1997), argues that case study research excels at bringing researchers to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. Yin (1994) identifies the following characteristics of case study research:

- 1) The research aims not only to explore certain phenomena, but to understand them within a particular context;
- 2) The research does not commence with a set of questions and notions about the limits within which the study will take place;
- 3) The research uses multiple methods for collecting data which may be both qualitative and quantitative

The main goal of this study is to investigate the current state and prospects in development of Internet technology in Russia and its usefulness for the banking services and its influence on the competitive position of banks. Case study is quite flexible method for this study and has a lot of strength. Since this research seem to emphasize exploration, not a prediction, it will be easy to identify and address problems as they arise. In addition, the format of case studies allows to begin with broad questions and narrow their focus as their interviews progresses rather than attempt to predict every possible outcome before the interview is conducted.

Most of the papers dealing with this subject present only general information about the Internet technology in Russia. According to Saunders et al. (2000, p.94), a well-constructed case study can help the researcher to challenge an investigated theory and to provide a source of new hypothesis. That's why this thesis designed as a case study with the main focus on overview of the official documents, special literature and articles related internet technologies that is currently a main force that moves forward the development banking and financial systems in foreign bank, as well as in Russia and supplementary by the interviews with actors working in the environment related to the research question.

The case study will be based on the opinions of the representatives of particular relevance to the environment of the banking and financial spheres of the three largest Russian banks, these banks are: **VTB Group** , **Alfa-Bank** and **Citibank**. In these case study will be discussed the development of banking technologies today and the trends that will shape the development of information technology in banks in the near future. The three largest Russians banks are picked up for this case study, due to the fact that these banks have successfully used remote service methods in their activities and use internet-banking systems nowadays and the adaptability of international experience in the Russian environment.

Methods of data collections

Before choosing the research methods it is necessary to understand which of them are the best to help in to answer the problem statement or sometimes their combination will be better in to achieve research aim. The choice of research methods can vary from one research to another. (Cresswell 1998). Most of the literature in the field of scientific research emphasizes two research methodologies: *quantitative* and *qualitative*.

According to Easterby-Smith (2008), the qualitative research is usually subjective, closer to observed situation and process-oriented, concerned with understanding behavior from actors own frames and assumes that reality is dynamic and changing; while quantitative methods seek for objectivity, explore the facts and causes of social phenomena by controlled measurements and assume that reality is stable. Knowledge through quantitative methods is gained through several analytical techniques including: cause and effect thinking, reduction using variables and hypotheses, measurement and observation. The various methods adopted by quantitative researchers include: surveys, experiments, statistical analysis, and numerical modeling (Myers 1997; Creswell 2003). There are three major components of qualitative research. First is data, which is often collected through interviews and observations. Second is interpretative procedure, the techniques to conceptualize and analyses the data to arrive at findings. And third is the report (written or verbal). The aim is to have a clear understanding of the complex situation and to clarify the overall connection between the factors (Holme & Solvang, 1991).

Due to the fact that innovative banking services in Russia seems to be in an early stage of development it is important to understand the nature of this field and go to the depth in the phenomenon it will be reasonable to choose qualitative approach. Thus this work will contain the case study, it will be based on qualitative data analysis, gathered from the secondary sources of information, such as web-sites, official documents, regulations, periodicals. Also data collected through the interviews will concentrate on how individuals perceive their experience. When people will be interviewed about the innovative internet banking services used in Russia, they will give different qualitative data as answers, but this data can be analyzed and the final complete picture of current condition can be formed. Thus, It would be reasonable to clarify the consequences and prospects of internet banking in Russia and to develop proposals toward at further expansion of its scope on the basis of the international experience

Any of the approaches to the research uses several specific techniques to collect the data. The sources of data vary and can be classified as primary and secondary sources of data. Primary data is the data collected by the researcher him/herself; on the other hand, referring to secondary sources means examining any materials, which have been previously published. There are different data collection methods employed in a case study research. They may include questionnaires, interviews, observation and documentary analysis (Saunders et al. 2000, p.94). Data collection for case studies can rely on many sources of evidence including

documentation, archival records, interviews, direct observation, participant – observation and physical artifacts (Yin, 1994). In order to accomplish a good outcome data for this research will collect from different sources. Observation and documentary analysis was chosen as a secondary data collection method and interviews as a primary data collection method.

Collection of Secondary Data

Data that was already collected for some other purpose is called secondary data. Organization files and library holdings are the most frequently used secondary sources of data. Statistical compendia, movie film, printed literature, audio tapes, and computer files are also widely used sources. Secondary data sources can be usually found quickly and cheaply. Sometimes there is no alternative to secondary sources, for example, census reports and industry statistics. Secondary data also extend the time and space range, for example, collection of past data or data about foreign countries (Emory, 1980).

In the beginning of the work with this thesis was reviewed a lot of secondary sources of data for the purpose to identify scope and key issues of the problem. This work concentrates on innovative internet banking services, in addition it reveals the main characteristics of the banking sector and the level of development of Internet technology in Russia. Thus, secondary data was used to clarify the situation in Russian banking sector, in order to facilitate the research, to improve knowledge and learn more about earlier experiences within the area of internet technologies in Russia. That is why a lot of attention was paid to the journal articles, dissertation, professional journals, textbook, the electronic web pages, media publications, et.

Collection of Primary Data

Primary Data collected directly by researcher using methods such as interviews and questionnaires. The key point here is that the data you collect is unique to you and your research and, until you publish, no one else has access to it.

There are many methods of collecting primary data and the main methods include:

Questionnaires, interviews, focus group interviews, observation, case-studies

Interviews play an important role in this study. As it was said above qualitative interviewing is its main tool for this research. Since interviews give the best result it has been the most appropriate technique for collecting qualitative data (Yin, 1994). The interviews in themselves can have different structure: *structured, semi-structured or open*.

- The *structured* interview has the advantage of having a certain number of issues, and thus, the answers will be specific, but limited. This option may be useful in conducting telephone interviews.
- The *semi-structured* interviews has the interview guide as a basis for the interview, but some of the questions, the specific topics and the order interview can vary . (Johannesen et al., 2004) The interviewee has a leeway in his answers, questions may not follow on exactly in the way outlined on the list. New questions may arise during the interview as they pick up on things said by interviewers.
- The *unstructured* interviews allow the respondent to give almost full liberty to discuss reactions, opinions and behavior on a particular issue. It can be seemed that this type of interview can provide the researcher with rich data about his concerns and deep understanding the problem, but it is usually a mistake, because due to absence of structure, the respondents often avoid to talk substantially and move away from the subject of the conversation, because of their uncertainty of what the researcher exactly wants to know (Easterby-Smith, 2003).

The qualitative research interview seeks to describe the meanings of central themes about the subjects (Kvale, 1996). Qualitative interviews usually use unstructured or semi-structured forms in order to understand the interviewee's point of view and there is quite a lot of variability between them. In this research it is reasonable to use the semi-structured type of interviews, since it lays the framework for the interview, helps to get rid of the odd data and gives the opportunity to more freely discuss some of the topics. The sequence of questions in such situation does not matter so much, and the conversation should go freely, but at the same time the objective is to cover all the topics that were planned to be covered (Guseynova, 2010).

Face-to-face semi-structured in-depth interviews were conducted with managers directly participating in the choose of the strategy of internet usage in several banks:

- **Alfa-Bank:** Dmitry Kashtanov, the head of online banking at Alfa Bank, and the head of the department of canals self- service in Alfa-Bank Vladimir Urbansky.
- **Citibank:** the head of banking products and e-business department of Citibank's retail business Svyatoslav Ostrovsky
- **VTB Bank :** Dmitry Nazipov the representative of VTB Bank

The lists of the topics that were talked about in the interviews will be presented in the Appendix. Face-to-face interviews helped to better understand the answers of the respondents and to understand the motivation that lies under the answers of the respondents.

Data analysis

After collecting all necessary data, the researcher main objective is to correctly understand, explain and interpret them. The big problem with qualitative data is how to condense highly complex and context-bound information onto a format which tells a story in a way that is fully convincing to the reader. It requires a clear explanation of how the analysis was done and conclusions reached, and a demonstration of how the raw data was transformed into meaningful conclusion. Easterby-Smith (2008) and Brewerton (2001), argues that without understanding how to analyze data, a researcher will not be able to interpret that data, nor draw any conclusions or recommendations from it. That is true, as well as the existence of variety of data analysis methods. So, let us look at the ones that are related to the research question. For this research was chosen Jacobsens (2000) method of data analysis. He divided the process of qualitative analysis of three steps: *describe, systemize and categorize, combine*.

- First, the data should be described. The description should be done as objectively as possible without any judgments.
- Secondly, the data should be systemize and categorize. The categories are the tools needed to see if certain sets of data are similar to or different from each other.

The following three demands can be placed on the categories:

- They should be based on the available data, from interviews and observations.
- They should have meaning to those who are not taking part in the research.

- They should be relevant to other theory and research on the subject.
 - Third, the data should be combine. In this phase it is relevant to find cases and structure the data in order to be able to find the most interesting relationships.

Validity and Reliability

Validity and reliability are among the most important factors, which identify the value of the research, since it makes any sense only when the data collected is reliable and valid. Validity is usually addressed to as the factor ensuring that the study measures a particular phenomena using the appropriate methods of research, while reliability is connected with the accuracy of the measurements (Easterby-Smith, 2008). Reliability is a necessary ingredient for determining the overall construct validity of a research and enhancing the strength of the results. We must be sure that our data and conclusions are reliable that means that it must be free from errors, and be characterized by representation of faithfulness and verifiability (Whittington, 2007, p.11).

Validity is measured in terms of two separate, but related dimension: *external* and *internal* . Internal validity is the approximate truth the inference is made regarding the study that involves a causal relationship. The main criteria of external validity is the process of generalization, and whether results obtained from a small sample group, it can be extended to make predictions about the entire problem. Trochim (1999). Three main criteria for the validity of studies were defined by Golden-Biddle and Locke (1993): authenticity, plausibility and criticality. The aim was to make the research consistent with these criteria.

- Authenticity means that the researcher has a deep knowledge and understanding of the situation in area of studies. The market according to the periodicals and the open reports of the banks was analyzed.
- Plausibility can be achieved if the research is linked to some ongoing concern among other researchers (Easterby-Smith, 2008). Large number of literature and articles were studied during the research.
- Criticality is encouragement to question the taken-for-granted assumptions made by readers and the researcher. This means that the author should place under the question

the existing view on the problem and get either the confirmation or non-confirmation of that view.

According Healy, Perry, (2000) validity and reliability are two factors, which are affecting the main phases of the qualitative research such as designing a study, analyzing results and judging the quality of the study. Patton, (2001) stated that the quality of a study in each paradigm should be judged by its own paradigm's terms.

The validity will be achieved by contributing knowledge about the processes, current state, prospects and tendencies of development and implementation of new banking Internet technologies in Russia .

In order to achieve a high reliability large number of literature and articles as well as literature review on special theories applicable to the problem statement were studied. The secondary data was gathered from the well-known periodicals and the studies known and respected in the studied area. Thus, the literature review and summarizing of the literature applicable to the problem statement helped to obtain reliability.

Triangulation

Golafshani (2003), argues that triangulation provides an important way of ensuring the *validity* and *reliability* of qualitative research or evaluation of findings. The use of several data sources and different methods is called triangulation. The main idea of this method is that the more agreement of different data sources on a particular issue, the more reliable the interpretation of the data. From a qualitative point of view, reliability, validity and triangulation reflect the multiple ways of establishing truth and are conceptualized as trustworthiness. It is also through this association that the way to achieve validity and reliability of a research get affected from the qualitative researchers' perspectives which are to eliminate bias and increase the researcher's truthfulness of a proposition about some social phenomenon using triangulation (Denzin, 1978). According Creswell & Miller (2000) , triangulation is defined to be "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study". These method chosen in order to test the validity and reliability of a study depend on the criterion of the research.

In this master thesis the choice of the research strategy as a case study and data collection method as a qualitative research will have a significant impact on achieving validity and reliability. In order to accomplish a good outcome and to achieve the validity and reliability data for this research were collected from different sources. Observation and documentary analysis such as internet, publications was chosen as a secondary data collection method and interviews and case study as a primary data collection method. The validity and reliability is aimed to maximize by triangulation of secondary and a primary data collection methods. Triangulation of interviews, case study and observation of secondary data provides an important way of ensuring the validity and reliability of research. All these methods will clarify the processes of development and implementation of new banking Internet technologies in Russia.

Research Limitations and Further research

Defining the limitations of the research is one of the important parts of the work of researcher, because the research only makes sense when the data collected is reliable and valid. Reliability of the study is connected with the accuracy of the measurements and the transparency of the research methods (Easterby-Smith, 2008).

The study has a number of limitations that should be described. The empirical data for study was collected through the in-depth interviews with the specialists who work in banks and have competence in the studied area. The records of the interviews were made to help to achieve the accuracy in the interpretation of the data. But the selected research method sets the researcher in the situation when the findings are limited by the gathered opinions. The opinions of the interviewees can affect conclusions and course of the analysis.

Not only the primary data, but also the secondary sources are used in the analysis. The secondary data was gathered mostly through the Internet from the well-known web sites of the periodicals and the studies. However, the research of the secondary data and previous studies can affect the opinion of the researcher.

The literature review has shown that there is a lack of research in the sphere of banking services and the lack of the formalization and typology of such factors, therefore this paper aims to formalize the knowledge that was already gathered with previous researches, to contribute to theoretical knowledge about banking services in Russia and will be applicable for future researches. The study would primarily help the banks in Russia to better understand what factors contribute to the satisfaction of their clients and show the perspectives of using new technologies in the banking sphere.

Ethical aspects

Doing research it is necessary to consider various ethical issues throughout the process (Collis and Hussey, 1997). Thinking about ethics in research tends to raise hard questions rather than to provide easy answers. Funders, research journal editors and referees, writers of research guidelines and people asked to consent to research are increasingly concerned about ethics in research, and these notes are intended to help researchers while they are considering the kinds of questions that might be raised. (Priscilla Alderson, London: Barnardo's, 1995). Ethical issues are controversial in different cultures, societies, religious groups and nations, and will not be accepted throughout the world the same way. According Marshal (1999), the researcher must demonstrate awareness of the complex ethical issues in qualitative research and show that the research is both feasible and ethical. The basic principles of ethical aspects was taken into account complied throughout the process of this research

Summary

This chapter presented methodology which underlies this study and provides the theoretical basis for the chosen research strategy and methods. Regarding the purpose of study the most appropriate philosophical approach to the research is Social Constructivism. This position will provide a deeper understanding of the research question and deductive approach will be more appropriate than inductive, because this method will help to start gathering information with well defined questions and objectives, derived from theory. Implementing combination of descriptive and explorative research will give the overall configuration of research in order to provide good answers to the key question. Among all types research strategy the most appropriate is case study. In order to accomplish a good outcome data for this research will collect from different sources. Observation and documentary analysis was chosen as a secondary data collection method and interviews as a primary data collection method. That's why this research had the main focus on overview of the official documents, special literature and articles related internet technologies that is currently a main force that moves forward the development banking and financial systems in foreign bank, as well as in Russia and supplementary by the interviews with actors working in the environment related to the research question. The case study will analyze the directions of the development of internet banking services in Russia and their influence on the competitive position of banks. The quality of the research will propose by analyzing the validity and reliability and then the conclusion will be triangulated. Finally the ethical aspects will be considered.

Theory

This chapter is present the theoretical framework which is seems to be necessary to answer for the main question of the research: "What are the directions of the development of internet banking services in Russia and their influence on the competitive position of banks?"

Literature review

This work concentrates on the description of the development of the electronic banking services in Russia and their influence on the customer satisfaction. At the beginning of research secondary data was analyzed which showed what has been done in the previous researches in this topic. The study of the secondary data helped to focus the ideas of the research and to prepare the plan for the primary data collection and the questions for the interview. However one of the disadvantages of secondary data was mentioned by the several researchers (Saunders, Lewis, Thornhill, 2000). This is the question on which most of the data answers does not correspond with the aim of study, so the authors should be very careful and reasonable during the secondary data collection. Therefore the secondary data was collected from the well-known periodicals and studies in the researched area, which were applicable for the question of this paper and to form the theoretical background of the study. This work is based on the wide review of the literature and it is necessary to mention some of the works that underlie the theoretical background.

- Streletc I. (2010), in his paper "the problem of information globalization in the twentieth-twenty-first century." was inferred that distinctive feature of modern globalization is its comprehensive nature, drawing the entire world community in an open system of social, political, financial, economic and socio-cultural relations based on the latest communications and information technology.
- Titorenko G.(2002) in chapter 7 of his textbook "The automated information technology in the economy" describes the current status and characteristics of the banking business in Russia and the principles of the creation of automated banking systems and the problems of development.

- Pirogov C.(2009) discusses in his article “classification of E-commerce “ the classification of E-commerce systems, users and e-commerce tools.
- Tedeev A. (2008) in his paper titled "Electronic Banking and Internet Banking: regulation and taxation," describes the concept of electronic banking, the issues of the banking business for various purposes, considers the principles of banking activities with the World Wide Web. Chapter 2 of this book provided the concept of Internet banking in the context of the legal and economic aspects and examined the types of banking activities via the Internet, he focuses on the concepts of WAP-banking and SMS-banking and provides the analysis of Russian banks offering electronic banking services. Although not all of the data was used to form the theoretical model, it was very helpful for the preparation of empirical part. Several studies were used to get the direction of the case solution and they are mentioned below:
 - The Central Bank of the Russian Federation (2008) in its paper “Payment and Settlement of Russia in 2008”, informs about the major trends in the development of the Russian payment system in 2008, reviews this system from several angles. Chapter 1 describes the payment services provided by the Russian banking system in general. Chapter 2 analyses the payment services provided by credit institutions in the federal districts. Chapter 3 is focused on the principal characteristics of individual payment systems.
 - Analytic Research Group (2011) in their research “Internet banking. Distance banking services for individuals, September, 2011”, showed that a significant number of credit institutions are actively promoting remote maintenance services. Share of internet physical person transactions tripled (from 8% to 25%) in 2010-2011. Banks cut their service expenses since more clients make transactions without operators assistance.
 - Federal Agency for Press and Mass Communication(2011), in it’s paper “Internet in Russia status and trends and prospects” provides a comprehensive overview Russians internet segment and its status in 2010 – 2011 years. This report examines key trends of this industry. The report presents data of Internet penetration in Russia, consumer preferences, and aspects of user behavior, electronic commerce and development payment system.
 - Good sources of statistical information, news and analytics of the Internet : Forrester Research (www.forrester.com), Cyber Atlas (cyberatlas.internet.com), AdKnowledge (www.adknowledge.com) ,Monitoring.Ru (www.monitoring.ru) and Internet Advertising Resource Guide (www.admedia.org).

New banking technologies

The structure and nature of the concept "innovation"

Introduction and implementation of a new banking products and services has a huge impact on the performance (effectiveness work) of the bank and its competitiveness on the market. New banking products and services implemented at market in their entirety can be defined as banking innovation. The concept of banking innovation, or a set of new banking products and services is the result of the banking activities to generate additional revenue in the process of creating favorable conditions for the formation and distribution of the resource potential through innovation, enabling customers to make a profit (Doerig,1999).

Nowadays, innovation is a powerful process that has gripped the Worldwide Economy. First of all we consider some general theoretical issues that lie at the basis of an analysis of changes in banks abroad and in Russia which will be presented in the following chapters of this thesis.

Afuah, (1998) defined innovation as the use of new knowledge to offer a new product or service that customers want. The new knowledge here refers to technological or market knowledge. Technological knowledge is knowledge of components, linkages between components, methods, processes and techniques that go into a product or service. Market knowledge is knowledge of distribution channels, product applications and customers' expectations, preferences, needs and desires (Afuah, 1998). No matter how the paradigm shifts due to external factors like technology and environment, the process of innovation cannot be separated from a firm's strategic and competitive context.

Economic development occurred through the introduction of new technologies, but over a long period this process was extremely slow. In today's technological revolution, and especially recently, when developed countries are moving into a postindustrial society, economic development has become a new character. Among the main features of this process, it can be highlighted: first, the fact that the process of innovation becomes the center of qualitative, quantitative and structural changes, the second is that innovation

process becomes a constant factor and continually changes occur with high speed. It could be said that now the whole economy of developed countries turned to an innovative type of development. This process significantly affected the banking sector.

According to Peter Drucker (2006), knowledge is applicable to analyze information and apply expertise in a variety of areas to solve problems, generate ideas, or create new products and service. Innovation is based on the use of previously acquired knowledge, on the results of new technologies, on the technological development or on the new combinations of existing technology. (Diaconu, 2011). In other words, the knowledge is applied systematically and purposefully in order to determine what kind of knowledge is required, whether obtaining such knowledge appropriate and what should be done to ensure the effectiveness of their use.

Russia has an official terminology associated with innovation. According to this terminology (Russian Federation Government Resolution № 832 of 24.07.1998)⁶, innovations are introduced in manufacturing or in services in the form of objects, technologies, products resulting from scientific research, inventions and discoveries, and which are qualitatively different from their counterparts (or do not have counterparts).

The economic literature represents innovation in a broader sense as the successful development of social, economic, educational, managerial and other fields based on a variety of innovations. In this paper the broad interpretation of innovation is followed, which was proposed by Joseph Schumpeter. He first defined the concept of "innovation", which in his time was not completely understood, but has become popular in our time. Joseph Schumpeter is generally seen as the founder of modern innovation research and many scholars who work on innovation would accept to be classified as Neo-Schumpeterian. He addresses innovation as a function of entrepreneurial activity, in which "new combinations" of existing resources occur. The definition offered by Schumpeter in the Theory of Economic Development (1934) is continuing to be referential in associating "new combinations" of production factors of new products and services, introducing new production processes, marketing and business organization. In principle, the literature operates with distinguishing invention from innovation.

⁶ Concept of Innovation Policy of the Russian Federation for 1998 - 2000 years. RF Government Resolution of 24.07.98, № 832.

Joseph Schumpeter distinguished five areas in which companies can introduce innovation(1997):

1. Generation of new or improved products.
2. Introduction of new production processes.
3. Development of new sales markets.
4. Development of new supply markets.
5. Reorganisation and/or restructuring of the company

For example, F. Malerba (1997) defines invention as a new idea, a new scientific discovery or a technological newness (which has not been implemented and diffused), while innovation refers to a tradable application of an invention, as a result of invention integration into economic and social practice. Innovation is regarded, therefore, being a result of a process that starts with an idea genesis and continues with its materialization. In the same Schumpeterian context, Oslo Manual (2005) defines innovation to be an activity that produces new or significantly improved goods (products or services), processes, marketing methods or business organization. In this framework, according to OCDE , “*Proposed Standard Practice for Surveys on Research and Experimental Development*”⁷, technological innovations comprise new or significantly modified technological products and processes, where technological novelty emerges, unlike improvements, from their performance characteristics. Vikulov (2001) defines the concept of innovation as the “end result of innovation activity, which has received expression in the form of new or improved product that is embedded in the market, new or improved technological process used in practice or in a new approach to social services. He pointed out the following characteristics inherent of innovation:

- novelty;
- meet market demand;
- tradeable

J. Schmookler (1966) differentiated “technological product” from “technological production” by defining the first innovation type in terms of how to create or improve products, and the

⁷ OCDE (2002). *Proposed Standard Practice for Surveys on Research and Experimental Development*

last concerns how to produce them, and Pavitt (1987, p. 9) notes that “technologies are specific to product and process innovation”.

Similarly, “product innovation” and “process innovation” terms were used later in Oslo Manual (2005) as types of technological innovations⁸. In this sense, product technological innovation is the result of producing and commercialization of new goods (products or services) or with improved performance characteristics, while process technological innovation corresponds to the implementation or adoption of a new or improved production process. It can be admitted that most innovative companies introduce both types of innovations in the same time, aiming price competitiveness (especially through process innovation) or technological competitiveness (associated with product innovation).

According definition, all innovations must contain a certain novelty degree, whether they are technological (product or process) or non-technological (marketing and organizational). The novelty distinguishes goods or processes as innovations and non-innovations. Table № 1 presents the degree of novelty of goods (products or services) and processes recognized by the Oslo Manual in defining innovation and the innovation typology

⁸ OCDE (2005). *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*

			INNOVATION			Not innovation Already in firm
			Maximum	Intermediate	Minimum	
			New to the world	New to the country/region	New to the firm	
Technological (product or process) innovation	Technologically new	Product				
		Production process				
		Delivery process				
	Significantly technologically improved	Product				
		Production process				
		Delivery process				
Other innovation	New or improved	Purely organisation				
Not innovation	No significant change without novelty, or either creative improvements	Product				
		Production process				
		Delivery process				
		Purely organisation				

Technological (product or process) innovation Other innovation Not innovation

Source: OECD (1996, p. 36).

Table 1 Innovation typology and degree of novelty of goods and processes

Products/services and processes may be “new to firm” or “new to market” (at the regional/country or global level). The products or processes degree of novelty is a useful tool in calculation of innovational output indicators that incorporate data on the enterprise local, national or international market. Also, the proportion of turnover from new to firm or new to market products of total business turnover allows industrial or international comparisons. However, if one considers that the new to firm products refers to the less developed firm’s market, incorporating innovations already available on other markets, comparing the levels of this indicator may lead to an inadequate appreciation of the innovation performance of enterprises. It can be considered, therefore, that the products or processes novelty can be highlighted more appropriate if we take into account turnover from new to firm’s market innovations that correspond also to new to international market innovations. In this framework, it can be assumed that firms that operate on international markets introduce products or processes with a higher degree of novelty than those that activate on the local or national level. Such a synthetic indicator of innovation output based on the enterprise market allows also, in our opinion, the indicator comparability for different states or regions.

Innovation in banking sphere.

Vikulov (2001), notes that in relation to the bank refers to the creation of a banking product, which has more attractive consumer features compared to previously proposed, or a brand new product that can satisfy the needs of its previously unreached potential buyer, or the use of more advanced technology of the same banking product. Everything mentioned above let conclude that the concept of "innovation" is applicable to all innovations in all areas of the bank with certain positive economic or strategic effect, examples of which can be considered an increase of the bank customer base, increased market share, reducing costs to carry out any kind of operation, etc. The innovation process involves the creation, development and dissemination of innovations covers all aspects of the bank, from concept development or idea to its implementation. Semikova (2008), defines bank innovation as the outcome of innovation which is implemented in the form of a new bank product or transaction. She divides the new banking product into two types:

- Limited - when product, volume or quantity of output is strictly quoted. Limited banking products include stocks, bonds, loan agreements, etc. This product is available based on specific customer;
- Unlimited - when product, volume (quantity) of output which is not restricted by any quotas. This product is based on the possible potential buyer, so the volume of its production is not limited by any rules other than the factor of consumer demand. Unlimited banking products include plastic, settlement and credit cards, bank accounts, etc.

All the above mentioned features (novelty; meet market demand) are fully responsible for the notion of a banking product, but in it is necessary to substantiate the notion of "newness" in relation to the introduction of new products:

- Any product, independently developed by the bank to meet the needs of clients and had no previous analogs on the market - is new;
- Any product that is already in the spectrum of banking services and is used in one of the markets, but all of the other - is also new;
- Any product being introduced by the bank based on market analysis and assessment of commercial feasibility of creating a copy of an existing product on the market, is a new.

The time factor plays an important role in innovation of banking services. The main task of the bank is first to market with a new product in a particular area. In developed economies, the banking innovation can't be considered banking product or operation that are new only to the bank, while it has already been distributed to other banks of the country.

Taking into account that Russian banking system is under development, the banking innovation in Russian can be considered as:

- Russian new banking product, which first appeared on financial market
- Foreign bank product that is new for Russia

The situation in today's economic sphere has the following specifics:

- First, the initial impetus for the introduction of technological banking innovations, based on the information technology comes from other industries (electronics, communications), and in this sense appear external to the industry.
- Second, the distinction between leaders and imitators in the above sense in the banking sector is conditional, as information technology, as a rule, are introduced from outside. Banks - leaders, especially in the implementation of technological innovations that are produced in other industries. Communication with the market of banking services in this case mediated.
- Third, innovations coming from the banks, mainly associated with structural changes and new banking products. Here is a direct correlation with the market of banking of services.
- Fourth, for conventional firms an important role plays value of spending money on scientific research in the decision making to implement innovations. For banks like simulators are important only for the purchase costs of technology.

Ivanova N. (2002), subdivided innovation process in the bank into three groups :

1. Simple intra-innovation process is a process requiring the creation and use of innovation within the same bank. In this case, the innovation does not take the form of a new banking product, but only improves the production technology is existing product or any service technology.

2. Simple inter-organization process, providing for the formation of a new banking product for promotion in the market as the subject of sale.
3. Advanced innovation process, mostly associated with formation of complex bank products, when it is created Bank is working with its partners, thereby redistributing the innovation process between several participants.

In this framework, it can be concluded that the dynamic competition in the banking industry is currently going on in the first place through the "survival" of traditional banks through the achievement of the existing technological level of new information technologies and related products. The choice of alternatives is limited and fairly well known. Technologies entail and internal structural changes. At the same time dynamic and evolving competition through the creation of fundamentally new banking institutions is taking place. Competition in this the field is just beginning, the results are ambiguous and require special studies.

Information technologies as a base of innovation in baking sphere.

In the previous chapter it was shown that at the present time of the International financial system is increasingly becoming a global financial information and complex. Therefore, the functioning of banks more than ever depends on changes in the environment. Peronkevich (1999), claims: "These changes occur at several levels: global, regional and national."

Based on analysis in previous chapter, the external factors that determine the direction of changes in banks can be grouped into three areas:

- First, the globalization of financial markets that determine the transition to a more homogeneous market of financial services.
- Second, liberalization and deregulation of national financial markets, contributing to the emergence of new competitors that are not banks (providers of the new banking technology, telecommunications firm; supermarkets, etc.).
- Third, the transition to global integrated technology systems (the Internet) that allows you to create a single global network.

Consider the innovative changes that occur at the level individual banks. The question arises: why so conservative (prone to routines), organizations like banks are now actively engaged in innovation? The answer, apparently, should be sought in the peculiarities of the modern global economy based on information technologies that form the core of innovative changes.

Under the influence of external factors in a comprehensive foreign banking practice, occurs the following innovative changes⁹:

- new banking products (services) based on new information technologies.
- virtual banking and financial technologies: bank accounts managing, cash transactions, electronic signature, contract, financial institutions (stock exchanges, banks).
- integrated use of new information and communication technologies for electronic and mixed (traditional and new) marketing.
- collection, storage and analytical treatment of inside information. New features of internal control and audit.
- changes in skills: product manager, consultant, expert advice and transactions. New self-service machines (ATM)
- mono-and multi functional information.

It creates fully automated bank branches, which is a room equipped with a special banking facilities. Automated bank (depending on the amount of equipment) may be placed on the area of 10-50 m² in residential buildings, shops, offices, industrial areas, subway stations, train stations, airports, etc., can be integrated and stand alone. It provides services in auto mode 24 hours a day. The idea of the services provided by banks can be seen from Table № 2:

Clients's individual work with their accounts (Current, savings, card, etc.)

⁹ For more information see: "Banking: Foreign Experience: Analytical and abstract material." - 1998. - № 4. - p. 55-56; Istenberg-Shik G. Multichannel banking - the path to the client // Business and banks. - 1999. - № 43. - p. 6. Vodskaya N. New banking technology // Banking. - 1999. - № 11-12. - Pp. 15-18; Volodin, On elements of the strategy to develop new banking products (Introduction to the problem) // Banking. - 1998. - № 10. - Pp. 18-19

<ul style="list-style-type: none"> <input type="checkbox"/> additional accounts opening; <input type="checkbox"/> utilities, telephone, etc.; <input type="checkbox"/> funds transfer from one account to another; <input type="checkbox"/> implementation of non-cash transfers; <input type="checkbox"/> receiving traveler's and other bank checks; <input type="checkbox"/> receiving statements for the required period of time;
<p>Execution of operations and services the bank</p> <ul style="list-style-type: none"> <input type="checkbox"/> service cards of various payment systems. <input type="checkbox"/> operations to receive cash and credited with cash on ruble exchange or the customer's account in real time. <input type="checkbox"/> Transactions on cash delivery with the removal of funds from the customer's account. <input type="checkbox"/> Currency Exchange. <input type="checkbox"/> 24 Hour clients access to an individual box for storing valuables. <input type="checkbox"/> Automatic collection and money transferring the customer account in real time. <input type="checkbox"/> Possibility to get any needed information at the banks information desk

Table2 Automated Banking services

Varaiya (2000), determined type and quantity of services automated bank and divided all entire city territory into the following areas:

- living quarters;
- manufacturing and industrial enterprises;
- trading enterprises;
- transport zone;
- recreation.

Each of these types has its own positive and negative characteristics, and it must be taken into account while opening an automated bank.

Hominich I. (1998), distinguished and classified possible innovations which occurs in banks. This thesis refers to this classification and presents it's in Table № 3. "Classification of bank innovation":

Criterion	Type of innovation
The reason for the appearance	Reactive (in response to innovation activities, competitors actions) Strategic (are proactive)
Objectives	Operational objectives (current, short-term) Perspective (long term)
Functional content	Production Intellectual Managerial Financial
Object (entity)	Products (new product, services) Processes (technology, management schemes and customer services)

Table 3 Classification of bank innovations

The concept of Virtual or Distance Banking

Currently Internet banking systems is the most advanced, convenient and potential of all electronic instruments. There are two fundamentally different ways the organization of banking activities:

- A classic bank, which has its offices and operating rooms and enables clients to manage their accounts through the Internet;
- A virtual bank, which operates only in World Wide Web.

What does the term "virtualization" and, accordingly, a "virtual", so frequently used in recent times? To answer this question, we turn first to an analysis of the Internet as a business

environment, then to virtualization in general, but more to the essence of the virtual bank. The Internet is an electronic network consisting of nodes (computers), and channels, which they are associated. Internet technology make it possible to create, store, and transmit information. Most currently used types of Internet technologies consist of the rapid exchange and dissemination of information (text, audio, video and e-mail), as well as means of creating and maintaining information resources (Web pages) on the Internet.

Information technology has led to the virtualization of banking. The global network is becoming a major source of information and its vehicle. Internet makes it possible to move away from paper-based, which records all the stages of the implementation of a commercial transaction, and allows to achieve significant improvements in accuracy, speed and efficiency with the passage of a commercial transaction may be concluded, confirmed and fulfilled (Bushueva. L. 2004). Virtual Bank is a bank that works with clients exclusively through the Internet and unlike traditional banks does not hold the branch network. In the case of a virtual bank customer is fully deprived of contact with his front office. The Bank attracts and serves clients exclusively via the Web. Usually Banks prefer a combination of virtual and conventional technologies.

With the rapid growth of information communication and technology, especially in Internet based services, with supports from the government, there has been increased interest in E-banking service (O'Connell, 2000).

Electronic banking (e-banking) is the newest delivery channel of banking services. The definition of e-banking varies amongst researches partially because electronic banking refers to several types of services through which a bank's customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999). Burr, 1996, for example, describes it as an electronic connection between the bank and customer in order to prepare, manage and control financial transactions. Electronic banking can also be defined as a variety of the following platforms: Internet banking (or online banking), telephone banking, TV-based banking, mobile phone banking, and PC banking (or offline banking). (O. Luštsík, 2004). . The example of the Electronic banking be seen from Figure № 1

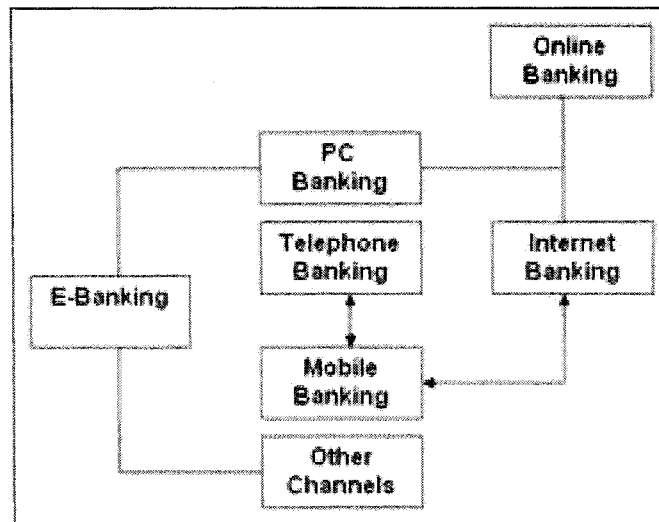


Figure 1 Electronic Banking

Electronic banking as an activity of a bank connected with providing clients with a set of financial services using computer and network technologies. Such services may include (OECD Publishing, 2000):

- Management of accounts (account reports, funds transfers from one account to another, balances)
- Funds investments (deposits, securities, currency operations);
- Transfers and bill payments for goods and services;
- Consultation and information services;
- Credit services;
- Risk-management.

It is possible to notice that a specter of services provided to users of electronic banking is practically the same as the one available to clients of a traditional office. Therefore under electronic banking services it necessary to understand activities of a bank directed at development and realization of usual banking operations by utilizing information technology. Doubtless, electronic services are essentially based on well-known traditional banking operations and cannot exist separately.

On the basis literature review of Safeena R., Date H. (2010) and M. Sadalsky (2005), it was identified three functional level/kinds of internet banking that are currently employed in the market place and these are: *Informational, Communicative and Transactional*.

- Informational (Websites) - This has been identified as the first level of internet banking. Typically the bank has the marketing information about the bank's products and services on a standalone server. The risk is very low as informational systems typically have no path between the server and the bank's internal network. Such sites do not require a high level of protection (Safeena R., Date H., 2010).
- Communicative/Simple transactional (Websites) – This type of internet banking allows some interaction between the bank's systems and the customer. The interaction is limited to e-mail, account inquiry, loan application or static file updates (name and address). It does not permit any funds transfers and the protection of information provided by passwords and electronic signatures (Safeena R., Date H., 2010).
- Advanced Transactional (Websites) - This level of internet banking allows bank customers to electronically transfer funds to/from their accounts, pay bills and conduct other banking transaction online. These sites require the communication of confidential information in the trading day of the bank and require heightened security (M. Sadalsky, 2005).

The set of services common for practically all of institutions practicing Internet banking includes:

Presentation of relevant information regarding the state of currency and credit markets. Such materials are usually compiled and analyzed by specialists and are quite convenient to use. It is possible to view them directly on a corporate web page or receive through an email. Many banks simplify the procedure of documents exchange and upload blanks of most common documents in an electronic form. It is necessary only to download a blank and print it out in client apartment. Most of institutions provide such services for free.

Account management. With Internet-banking financial institutions have further developed "Client-bank" model by adding Internet connectivity. Functions of the system remained fundamentally the same, however, it is no longer necessary for a client to go to a bank office or to install any software on a computer. Internet access is sufficient, moreover, it is now possible to manage accounts from any place or a computer where Internet is available.

Payment card management. The mechanism of such service is organized as follows. A buyer enters Internet shop, chooses goods to purchase, fills in a payment form where it is necessary to provide one's name (an owner of the card), address, type of the card (Visa, Master Card etc.), validity term and number. Such electronic form is later sent to the server of the shop which in turn transfers it to a centralized database to check the validity of the card. If everything is in order the server sends details of the purchase to buyer's bank which blocks an amount of money necessary to accomplish the shopping process. After receiving a respective information the server sends an order to a delivery department and a message to the buyer informing therewith about a successful purchase (Sparks D., 2005). Later the Internet-shop will send an electronic request to buyer's bank and receive a respective payment. The bank, correspondingly will draw funds from an account of the client.

Some banks propose their client an even more unconventional card management service – a so called *virtual payment card* (Sparks D., 2005). It is usually supported by one of leading electronic payment operators (Visa, Master Card etc.) and therefore accepted everywhere where vendors accept cards from those providers. Usually opening such account as well as service fee of such card is significantly lower in comparison with traditional plastic card. Therefore if a client contemplates opening an account specifically for Internet shopping it makes a lot of sense to get advantage of a virtual card. However, it is always necessary to be aware of limitations of such product, it is not possible to use the product anywhere off line; often a client does not even get a physical card but an information on card number, password etc.

The directions of development of the global financial system.

The financial system of market economy at the beginning of XXI century has reached the extremely high level of development both in nationally and in global scale. According Gerasimenko (1999), it can be defines into:

- High degree of concentration of financial resources at both the macro- economic level (low cost system of developed market economies and international financial institutions), and at the microeconomic level (finance major corporations and banks);

- High degree of mobility and the relationship of financial markets based on the latest information technologies, marking the transition the entire economic system, including financial, to the new, post-industrial stage of development;
- Variety of financial instruments of macro-and micro-finance policy and a high degree of dynamism;

Recent trends in the global financial system.

In the basis of the main trends of the global financial system there is the process of internationalization. The internationalization of world economy, understood as the ongoing activities across national borders, is not a new phenomenon, it is the process of developing and deepening economic ties between the countries. In the postwar period, it becomes an unprecedented impetus, under the impulse of many factors, including: the process of postwar reconstruction, the institutionalization of international economic relations, a progressive reduction of barriers to trade flows and international financial, cost of transport and communications, development technical of modes of transport, expanding business of transnational societies etc.(Popa, 2008) Internationalization is shown in various forms of international economic relations: the international trade in goods and services, including information, the export of capital, labor migration, economic integration, international monetary relations and settlement, etc. The trend toward internationalization faced with specific national economic and cultural interests of the individual countries. Along with all the great countries in the world by drawing process is their national identity, enhanced tendency to preserve the unique national national economies, national language, culture and identity. For the present stage of internationalization is typical of such depth and breadth of countries and sectors of economic activity that it took the form of transnationalization.

The nature and extent of internationalization is largely determined by prevailing at a particular stage of the technological type of production. At the moment by the establishment and development of the information economy. In most developed countries is dominated by such technological structures, which are based on extensive use of networked information technology, advanced computer technology and telecommunications. Information systems

have emerged as a subsystem in a relatively independent units. The process of internationalization is objectively based on a hierarchy of economic systems: industrial, communications (transport, information), financial. Information flows (as well as financial) pervade all industrial and commercial activities of companies, creating a feedback system, creating a new objective basis for the development of internationalization.

Characteristics of information networks has particular importance for the internationalization of the nature: first, drastically reduced the time to transfer information, moreover, it is possible to work in real time, while in geographically remote locations, and secondly, scale economic activities of companies and banks expanded their branch network of branches. The structure of the network acts as a source of economic restructuring relations of power in the global economy. On the one hand, public information networks make the international community is more democratic, but on the other hand, connection to the networks of information and financial structures as instruments of power available only elected. Paradoxically, the that the boom in the information and if there is a huge number of Information can be such inequality.

The following trends are fundamentally affect the basis of financial systems of the world:

globalization, convergence of financial institutions development of new technologies.

The globalization of the world economy began in the mid 80's, has acquired new followers in the decade of 90 years and now continues to be strongly although it faced regional and national concepts. Globalization is the highest stage of internationalization. In the special literature, some authors use the term of globalization. Other authors consider the relationship terms globalization and worldwide integration as part of the whole, or more, globalization is a step in the worldwide process.

Globalization of world economy can be defined, broadly, as the very dynamic process of growth of the national linkages, as a result of enlargement and deepening of transnational linkages increasingly broad into diverse life spheres of economic, political, social and cultural rights, and having the implication the fact that problems become global rather than national, and their solving must be appropriate.

A number of aspects of social and economic life today illustrate the process of globalization (Popa, 2008):

- the global nature of science and technology: even if the major sources of technical progress is concentrated in the developed world, the scientific research is based on global resources, and implementation of technology is focusing on global concerns;
- the global marketing: marketing strategy of companies meet the requirements of globalization and promote this process (universal brands of consumption such as "cooca", culture of advertising etc.).
- the global financial system: the world economy "symbolic" is based on a network involving, on a global scale, the banking institutions and capital market, national regulatory bodies, international financial bodies etc..;
- the communications infrastructure: technical progress has allowed the improvement of communications materials (transport), the coverage of the media world (eg CNN) and, especially, the establishment of a global network of transmission / reception of information (eg Internet);

The worldwide institutional frame: some kind of governmental organizations (UN system) or nongovernmental (NGO) promoting debates and actions regarding global issues: pollution, crime, under-development etc.

Without going into discussion on the effect of globalization in general, we note only the main points that are needed for this study: the state integrated into the structure close to a single economic system, the international community recognizes the need to control these processes (such as risk management, as well as an enabling capability). Shima (2002), claimed that Globalization is the most sophisticated and most advanced in terms of the internationalization process, which is the result of deepening financial ties between the countries, price liberalization, and investment flows, the creation of global transnational financial groups.

Globalization and the successful application of modern information technology in finance in the global economy have formed a new concept of *financial globalization* - the desire of individual independent national and regional markets to create a single bound and interdependent capital markets. The process of globalization is most clearly emerged in the

financial sector. Revealed a new role for financial markets. Changes in this field of such magnitude and rapid that they are often described as a "financial revolution". Thus, experts believe that the essence of financial revolution is increasing the number and role of financial institutions, financial integration and the rapid growth of financial practices (Mayer,1998).

After the elimination of strict control over the movement of capital (control over interest rates, currency exchange operations, quantitative restrictions on lending operations of banks, etc.), international finance capital has become highly mobile. In the world there are only 15-20 of the financial markets that are really global in the sense that they made a big deal in bonds, stocks and currencies on an international scale in the commodity and stock exchanges, and provides a wide range of universal services. Through the merger of banks, insurance companies, mortgage lending institutions, the growth of investment activity of pension funds and other financial institutions form a global financial group. These institutions are the core of financial globalization.¹⁰

The globalization of markets also means strengthening the role of international markets in transactions lending and borrowing by residents of different countries. This has already led to an increase in the international network of financial institutions and corporations to increase the share of business accounted for by foreign countries, and to fundamental changes in their systems, organization, management structure and management philosophy. Globalization presents the relevant requirements for market participants, suggests specific opportunities and risks that characterize this stage of development of global finance. Participants in the global market to maintain competitiveness is obvious need to fulfill the high demands for quality products and services, market positioning, technology, as well as transparency and accountability.

The spread of electronic banking services.

¹⁰ The prevailing role of finance in the evolution of the modern world economy is disclosed in the works of Kollontay, L. Krasavina, A. Neklessa, Y. Osipov, B. Rubtsova and other Russian scientists. - See, for example, Kollontai, The neoliberal model of globalization // ME and MO. - 1999. - № 10. Rubtsov B A World stock markets: current status and patterns of development. - Moscow, PA, 2000. Economic theory on the threshold of XXI century - 4: Financial Economics / Ed. Yuri Osipov, V. Belolipetskii, E. Zotov. - M., 2001, etc.

Following development of computer technologies bank were not able to stay aside from latest breakthroughs in this area since they have opened a wide perspectives of extending banking activities, improving quality of services, increasing and simplifying payments and settlements. Actually, one of the first areas touched by new technologies was clearing and settlements. Electronic banking systems together with interbank digital settlements have rapidly entered into an array of automated banking processes. Moreover, such rapid progress was not expected even by initial developers of systems. As was noticed before electronic banking processes are concerned with comparatively narrow set of operations, nevertheless those operations often amount to around 70% of total funds turnover in a banking system. As a result nowadays developers pay an increasingly high attention to development of electronic banking solutions with respect to technological progress. Most of new trends in a financial industry electronic banking system come from United States and Western Europe – countries with most developed economies and technological fundamentals. And it is remarkable that initial steps of deployment in those countries were connected with promoting new services mainly in a private sector (J. Gilbert, J.,2008).

One of the first innovations in financial services automation area was an American telephone bill paying system introduced by US banks. To settle bills using telephone clients had to use a special device connected to a corporate computer by which means it was possible to pay for electricity, water and other utilities. Initially it was necessary to log-in to a computer voice interface, afterwards by typing phone keys enter relevant information such as an account number, code of payment receiver as well as the sum of payment. If receiver's account happened to be in the same bank as payer's the transfer was processed immediately. Otherwise a client received a check necessary to pay later (Horowitz E. , 1999).

Later the most widespread automated service became banking servicing at home or simply “Home banking”. It was presented by a set of services connected with providing clients with financial information as well as performing by their initiative different banking transactions sending data through telephone channels or two-way cable TV system. Such system was very convenient for clients and significantly reduced costs for the bank.

At first settlements procedure was performed based on an oral agreement and was fixed in print only after payment was received. It was partly automated by using a keyboard, however before appearance of video-graphical capabilities such activities a lot of supporting personnel. Video text is a system of transmitting visual information through telephone network and it's

consequent visual presentation on the screen of a special terminal or TV connected in an appropriate way.

In European countries such system was initially developed by different telecommunication ministries that at the time possessed monopolistic rights to practically every kind of connectivity. In United States on the other hand it was developed and deployed by telephone companies, hardware manufacturers and banks themselves.

Home banking gained the biggest popularity in France. It was mainly connected with mass advancement of video-graphic terminals by local Ministry of telecommunications. This provided banks with an ideal opportunity to deploy ad market Home banking solutions. Most French banks took hold of the situation and were proposing Home banking services in one form or another. During initial stages of their introduction banks used both cards with magnetic string as well as plastic cards with microprocessors. It has later turned out that only microprocessor-based instruments provide sufficient level of security.

Postal service of Germany has also introduced products based on video-text system. However, counter to all efforts of local banks Germans were much less susceptible to acceptance of “home banks”.

According Lawson W. (2007), in Great Britain there existed several networks of home banking that utilized telephone and video connection at the same time. While using telephone a client also connected a special keyboard to receive the same services as with a display. Among retail electronic systems the most success have gained banking machines or ATMs that made possible around-the-clock transactions and freed customers from a necessity of spending time to get to the bank office and stand in a queue. Other forms did not receive such mass support of customers and were not entirely able to destroy stereotypes against them. However, operational advantages of automated banking systems were so substantial and their impact on increased effectiveness and productivity was so strong that their highly important role the future of finance is decided.

In developing countries as a rule the most popular are “Client-Bank” systems that are used mainly by corporate clients to access their complex accounts and perform banking operations with them (Artemov S., 2010). Businesses are attracted by the possibility to quickly transfer funds without sending employees to a bank office every time the need for a transaction arises since it allows them to promptly react to changes on volatile developing markets.

In most countries with transitional economies such systems appeared already in 1990th and have been changing ever since as automation was increasingly deployed in the banking sector. With time such systems became available to a wider range of client, respectively banks were able to expand functionality of products since higher number of users decrease average costs of servicing. In such situation tariffs for products usually also go down. Often during special occasions such as promotions new services are being provided for free as a part of other operations such as opening of a new account, it's maintenance or transactions.

According OECD(2000) electronic banking system in its most basic form an considering area where it is most often used is a aggregate of technical and software solutions that are utilized with the goal of:

- Convenient and fast management of accounts by bank clients;
- Exchange of payment documents and respective technical data between bank and its client in electronic form.

Electronic banking systems can be viewed as component of banking virtualization and as a source of electronic documentation for domestic and international exchange. As a rule electronic banking systems are subject to a number of rules concerning keeping of documentation standards, compatibility with other systems, a certain range of services to be provided as a part of electronic banking, maintenance of a certain security level etc. On current stage a lot of attention is paid to development of technologies applied to security and protection of information transmitted through external channels of a bank (which also includes electronic banking data channels). Every electronic banking system usually consists of Bank and Client blocks. However, architecture of a certain solution as well as platforms and technologies applied may considerably different for each institution and lie on a wide scale. This is largely due to the fact that even in developed countries digitalization of banking services is still in the development stage. It is therefore to be expected in the coming years that the number of electronic banking user will rapidly go up as well as a wide array of new development and solutions in the sphere of innovative financial services.

A review of legal bases regulating electronic financial data and documentation exchange worldwide and in Russia.

Electronic commerce in financial services cannot and does not operate in a legal vacuum. It needs and makes use of the general legal and institutional framework within which online banks operate, including the rule of law, the national court system, efficient commercial laws, banking and financial laws, regulatory and supervisory standards of consumer and investor protection, monetary policy, safety and solvency of the banking system, data protection, privacy laws, and the laws relating to information safety and security.

Review of electronic documentation regulations of industrialized countries

Although an exchange of documentation today has become global ramose far from every such interaction is properly regulated by special laws and legal acts. The development of an electronic documentation turnover is tightly connected not only with technological advances but also with certain legal issues that require a lot of attention and a professional approach, an effective interaction between areas of science and knowledge that traditionally lie far from each other.

In developed countries electronic documents exchange is already regulated by a separate part of the law that is a subject of several legal consequences:

- A special legal category has appeared as well as the whole number of concepts connected with it, such as electronic agreement, digital signature, electronic payments, digital money etc;
- Electronic messaging (or electronic data exchange) that are used for establishing and realization of agreements and that gradually replace paper documentation traditional for commercial operations. Consequently, a problem of criteria development has appeared that concern an obligatory form of electronic agreements as well as requirement regulating respective procedures.
- Although the nature of agreements did not change the way sides enter into contracts and realize their clauses constantly shifts;
- On the level of common practices and habits present in the modern business practice a certain legal principle of electronic exchange is maintained that lies on a basis that sides of such process have no right to put the legal authority and validity of an agreement or a contract only due to the fact that it came into force electronically.

However, guaranteeing a realization of this principle is not always possible which often leads to certain legal complications. Among others, there is still a lack of certainty that all of the clauses of such an agreement will eventually have an equal legal force during a court process. A modern global and diverse character of the world economy makes impossible its regulation in real-time by any government or state institution. Respectively, legal regulations should be minimized and gradually become international and transparent, correspond to clearly defined goals, provide confidence, effectiveness and unified rules of conduct. The legislation should define main procedures of acknowledging the validity of electronic agreements, actions of court institutions, issuing verdicts to claims of companies or private individuals the subject of which is an application of digital signatures etc.

Currently some of the most important international legal documents regulating electronic documentation exchange activities are:

UNCITRAL Model law “On electronic commerce”.¹¹ The Assembly of United Nations for the electronic trade has designed a set of rules – The Model Law “On electronic commerce”. This is a model on the basis of which countries can solve common problems on the level of national legislation connected with legal significance of agreements that came into force through electronic means, an obligatory form of such documentation, electronic signature, storage of originals and copies, security of commercial information in electronic form as well undertaking legal court decisions. The legal mode of an electronic data exchange stipulated in this model law is based on the principle of so called functional equivalent.

The substance of such an approach involves an analysis of goals and functions of traditional legal requirements to the content of traditional paper documents in order to establish means of transferring their function to electronic materials. That is, by introducing to the national legislation procedures provided by the Model law to regulate situations when sides of a trade operation choose electronic means of data transfer the government created a certain legal environment neutral to carriers of information.

Directive 1999/93/EC of the European Parliament and of the Council of

¹¹ UNCITRAL Model Law on Electronic Commerce with Guide to Enactment, www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html, (last access: 12.05.2012)

Europe from 13.12.1999 on a Community framework for electronic signatures¹².

This document creates legal prerequisites to the wide adoption of electronic signature mechanisms in countries of European Union. Among the most important questions to which attention is paid in this document is an issue of providing an electronic signature with legal and evidential force. (It should be specified that it is not the fact of electronic signature utilization itself that leads to legal consequences but the exchange of a certain information in digital documents that also contain electronic signature with consequences depending on a content of an each single document. Concerning evidential power of electronic signatures it is possible to utilize an approach according to which they serve to prove validity of documents.) According to the article 5 of the Directive countries that participate are obliged to provide conditions in which electronic signature would satisfy legal requirements to data in electronic form with the same effectiveness it does with respect to traditional paper carriers. Moreover, states-participants must legally regulate validity of an electronic signature in court.

Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce)¹³.

This document regulates certain activities in computer networks on the internal European Unity market. In particular, the document gives consideration to the issue of governmental regulation, questions of commercial and other data circulation through computer networks, agreements made in electronic form as well as responsibility of information intermediaries. The directive provides a legal (including court) protection of agreements that came into force electronically. As such, an agreement is not to be considered invalid merely on the ground of it being digital. All mentioned legal acts are of a frame character that predominantly indicate directions of legal instruments development and limitations of legal regulations. However, they do not impose any specific norms. Principles contained in such documents may be used

¹² Directive 1999/93/EC of the European Parliament and of the Council of Europe, <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0093:EN:HTML>, (last access: 12.05.2012)

¹³ Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market, <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0031:en:NOT>, (last access: 08.05.2012)

during legislation development in countries where automatic banking only starts to appear with respect to social and economic realities of each state.

Review of general Institutional aspects of Russian Banking System.

The modern system of banks in Russia was formed at the present time and consists of two levels: Level 1 – Central Bank of Russia (CBR), 2 level – Commercial Banks (CB) and other financial and credit institutions, carrying out banking transactions.¹⁴ Russia's banking system includes the Bank of Russia, banks, branches and representative offices of foreign banks, non-bank credit organizations, unions and associations of credit institutions, banking groups and holdings. The payment system of Russia is governed by the Civil Code of the Russian Federation as well as by various federal laws, in particular those applying to¹⁵:

- the Central Bank of the Russian Federation (Bank of Russia);
- banks and banking activity; and
- the postal service.

CBR is the main bank of the state. It is independent from administrative and executive authorities. CBR - economically independent institution. The second tier of the banking system is presented, especially a wide network of commercial banks. CB in recent years, reduced almost to zero tariffs on cash management services for legal entities and began to pursue an active policy of interest rates on deposits of individuals. The high real return on financial markets together with real appreciation ensure sustainable development of the banking system. The special place occupies Vnesheconombank, converted to a bank for servicing the external debt of the Russian Federation, as well as the Bank for Reconstruction and Development established by the state to fund government programs .¹⁶

The Bank of Russia regulations provide the detailed part of the legal framework for payments and are compulsory for all payment systems. The relationships between the Bank of Russia and credit institutions and other customers that relate to settlement operations through the

¹⁴ (The Federal Law of 10 July 2002 N 86-FZ "The Central Bank of Russian Federation (Bank of Russia)").

¹⁵ CPSS – Red Book – 2011 Payment, clearing and settlement systems in Russia

¹⁶ Federal Law № 395-1 of 02.12.1990 year. "Banks and Banking Activities")

Bank of Russia Payment System are regulated by standards, correspondent account contracts and electronic message exchange agreements.

Russian legislation has quite promptly, albeit partly, absorbed digital data turnover. This phenomenon is mainly reflected as four legal constructions: “electronic document”, “electronic form of an agreement”, “electronic signature” and “electronic transactions”. Electronic form of agreements and data exchange has received its legal recognition in Russian legislation in Article 434, paragraph 2 of the *Civil Code of the Russian Federation*¹⁷. This article stipulates that an agreement may come to legal force in paper form as well as through exchange using “telegraph, teletype, telephone, electronic or other types of connectivity that allow to authentically define that the document originates from agreement participants”.¹⁸

The *Civil Code of the Russian Federation* sets out the key norms that regulate cash and non-cash payments. It establishes that payments between legal entities, as well as between individuals, can be effected with cash or with non-cash instruments.

Respectively, Russian Civil Code recognizes forms of agreements other than traditional with personal signatures. In Russian practice of electronic data exchange electronic signature is a widespread practice. The later serves as a proof that information transferred through electronic channels is authentic and at the same time that it was signed by authorized entity. The digital signature technology allows protection from unsanctioned access, reading, editing and falsifying independent from security level of channel that is used itself. Moreover, electronic signature techniques are mentioned not only in the respective Law of the country but also in the Civil Codex.

The *federal law “On the Central Bank of the Russian Federation (Bank of Russia)”* establishes the objectives, functions and authority of the Bank of Russia with respect to payment systems and funds transfers related to the settlement of trades on Russian securities markets.

The *federal law “On banks and banking activity”* regulates the activities of credit institutions in Russia, determines their legal status, establishes the rules for their registration, and defines the list of operations that only credit institutions licensed by the Bank of Russia can carry out, as well as the list of other activities that credit institutions may carry out.

¹⁷ The Civil Code of Russian Federation, http://www.consultant.ru/popular/gkrf1/5_59.html], (last access: 03.05.2012)

¹⁸ The Civil Code of Russian (ibidem)

In 2010, the *federal law “On payment agents’ activity concerning reception of payments from individuals”* and related legislative amendments came into effect. This federal law provides the legal basis for the development of agent schemes for receiving payments from individuals through payment agents and bank payment agents .

Rules and procedures for operations using cash and non-cash means of payment in payment systems are defined by the regulations of the Bank of Russia, while agreements between participants and the payment system operators govern the responsibilities of the payment system participants.

To create a comprehensive, up-to-date legal basis for the national payment system, the Ministry of Finance and the Bank of Russia have jointly drafted the *federal law “On the national payment system”*. The main objective is to establish a legal framework for the functioning of the national payment system based on common principles. The law was signed by the President of the Russian Federation and officially published on 30 June 2011.

The key provisions of the law include:

- Definition of e-money and procedures for its transfer, as well as requirements for credit institutions (e-money operators) concerning e-money transfers.
- Establishment of procedures for interaction between mobile phone companies and e-money operators.
- Establishment of procedures for registration of payment system operators for supervision purposes.
- Definition of important (systemically important and important to the public) payment systems and additional requirements for such systems.
- Establishment of requirements for the payment system infrastructure.
- Establishment of requirements for risk management systems within payment systems.
- Establishment of procedures for supervision of the national payment system, authorising the Bank of Russia to monitor payment system and infrastructure operators.
- Establishment of procedures for the oversight of the national payment system with a focus on the important payment systems.

According to the Law “*On information, information technologies and protection of information*”¹⁹ as well as the Civil Code of Russian Federation during making of electronic agreements an electronic signature instrument must satisfy following requirements:

- Provide information on the authorship of a document or a message and be proof to reengineering by third-parties;
- Identify the content of the document and make falsification thereof irrelevant;
- Perform a procedural function, that is to symbolize expression of will by parties of an agreement.

The highest arbitral Court of Russia Federation by the letter from 19 of August 1994 has explained that in case parties of a contract have made and signed an agreement using digital (electronic) signature they are entitled to put forward court cases concerning disputable cases connected with a respective agreement. In case there is a conflict between participants of an agreement for which an electronic signature was used the Court is entitled to ask for a clause in that agreement that provides a procedure of dealing with disagreements, specifically which side should prove the fact and authenticity of an electronic signature. With respect to this procedure the court investigates credibility of evidence provided by participants of an agreement.

Competitive Advantages and Information Technologies.

Global financial crises revealed that banks today are facing many challenges due to the globalization, liberalization, technological advancements, and the open market policies and the major challenge that has been facing banks is how to acquire the capabilities with which they can create and sustain their competitive advantage in such rapidly changing market (Mahmood Rosli, Al-Swidi Abdullah Kaid, 2011).

Michael Porter (1979) is the first researcher who presented a clear view of the factors shaping competition. The industry in his opinion consists of firms aiming for the better position on the market and meanwhile they are impacted by several factors such as: the

¹⁹ Federal Law of Russian Federation “On information, information technologies and protection of information”], www.rg.ru/2006/07/29/informacia-dok.html, (last access: 27.04.2012)

bargaining power of suppliers, the bargaining power of customers, the threat of new entrants, and the threat of substitute products or services. These forces affect all competitors and should be viewed by them strategically in order to get growth and prosperity. Porter suggests that the firms should diminish customer or supplier power, lower the threat of substitute products entering the market place, discouraging new entrants, or gain competitive edge within the existing industry.

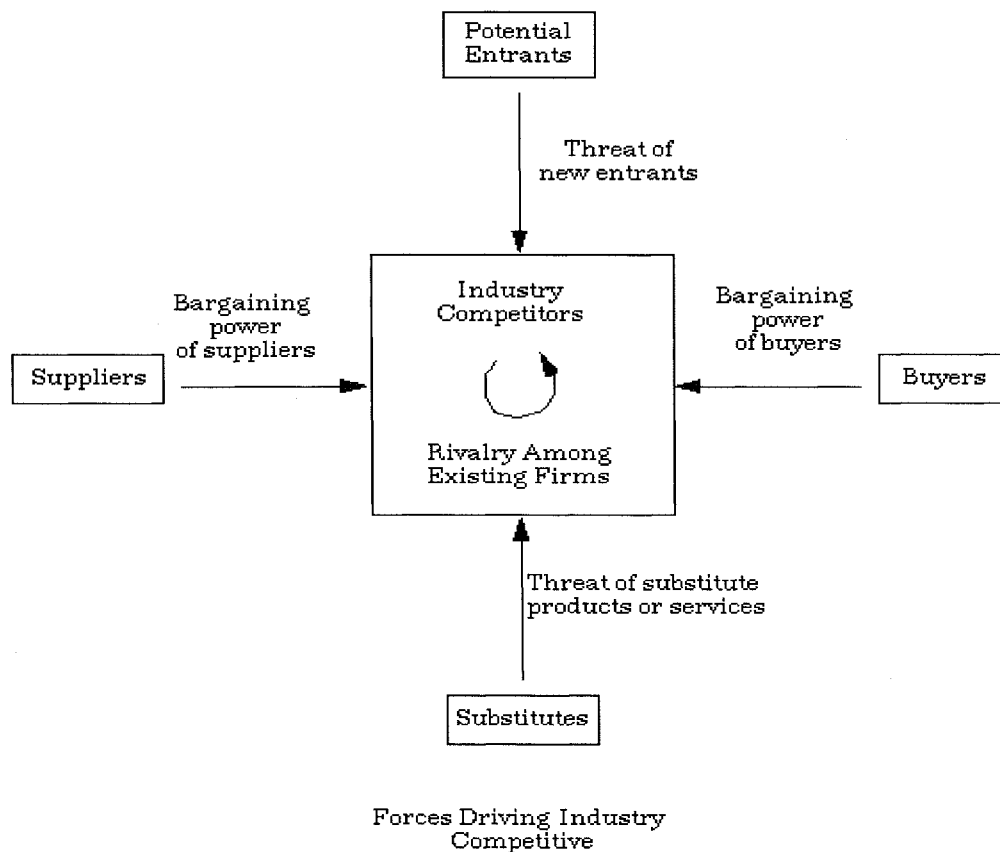


Figure 2 Michael Porters competitive models²⁰

Recently the term competitive advantage has been placed in the center of marketing strategies. It has received a lot of discussion and there are a lot of statements about competitive advantages and positioning, but there is still no clear definition, as different researches look at it from different points of view. The review of the literature on this topic

²⁰ Source: Roger Clark, The Path of Development Strategic Information System Theory, Version of 14 July 1994, p 1-19.

was done. Rumelt Richard P. (2003) has made a review of the definitions of competitive advantage and several mostly referred definitions can be listed.

- Porter says (Porter M.E., Millar V.E., 1985) “competitive advantage is at the heart of a firm’s performance in competitive markets” and goes on to say that purpose of his book on the subject is to show “how a firm can actually create and sustain a competitive advantage in an industry—how it can implement the broad generic strategies.” Thus, competitive advantage means having low costs, differentiation advantage, or a successful focus strategy. In addition, Porter argues that “competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm’s cost of creating it.” Porter M.E., Millar V.E. (1985)
- John Kay (1993) defines that “A distinctive capability becomes a competitive advantage when it is applied in an industry or brought to a market.” and measures the value of competitive advantage as valued added, with the costs of physical assets measured as the cost of capital applied to replacement costs.
- Barney (2002) says that “a firm experiences competitive advantages when its actions in an industry or market create economic value and when few competing firms are engaging in similar actions.”

What should be noticed is that the customers have become very critical and selective which reflects in their demands for high quality and innovative products and services. Therefore, being successful in doing businesses requires banks, among other organizations, to pay great attention to the customers’ requirements and needs (Mahmood Rosli, Al-Swidi Abdullah Kaid, 2011). Today business is information based and information technologies is major driving force for development and gaining stronger competitive position. For many banks information technologies and innovation have become a strategic focus, which gives them an opportunity to provide better service through deeper knowledge of customer.

Everything mentioned above allows us to construct an analytical model of diffusion of technological innovations in the banking system at the macro, micro and global levels (see Table 4).

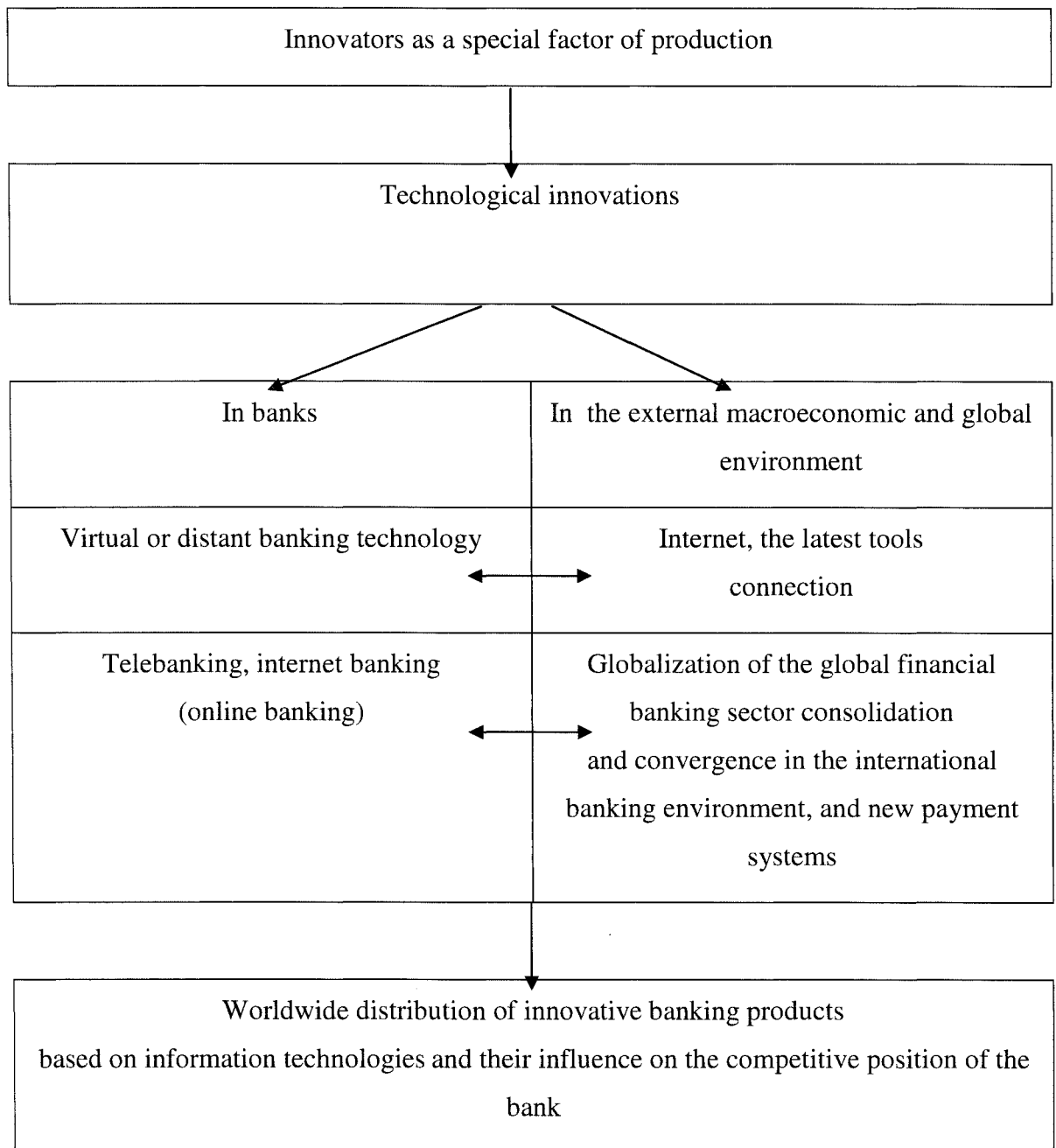


Table4 Analytical model of diffusion of technological innovations in the banking system at the macro, micro and global levels

Thus, the spread of innovation in the banking environment closely associated with innovation in the global and the global financial sector, which makes this process inevitable for all banks in the various countries.

Empirical findings

The development of innovative technologies in banking sphere

The emergence of Internet banking

The idea of creating online banking were born in America facilitated by a high rate of migration. Moving to a new place, a person had to switch to a new bank if his 'native' did not have a representative office at a new residence - an obvious inconvenience for people and enormous losses for banks. Besides, several American states rule out opening branch offices of 'alien' banks. On-line accounts management systems that emerged in mid-1990s solved the problem and opened limitless market possibilities for banks. Banks had to find ways of providing services to the client in a different state or country. Besides, several American states rule out opening branch offices of 'alien' banks. On-line accounts management systems that emerged in mid-1990s solved the problem and opened limitless market possibilities for banks. The idea to employ Internet Banking's advantages to fight competition on the market of financial services 'gave birth' to fully virtual banks that do not have a single office – only a legal address.²¹ Originally, Internet banking had two directions of application – active and passive. Passive access enabled users to get information on bank accounts without managing them. Active access implied the possibility to carry out on-line operations with clients' accounts. Some banks took the first path whereas others successfully developed both.

The first virtual bank (Security First Network Bank) was opened in 1995 in America. During a year and a half of its existence capital surplus reached 20 percent per month, assets grew up to 40 million USD; about 10 thousand accounts were open. It still exists today, being one of the best banks of this kind.²² The idea to employ Internet banking advantages to fight competition on the market of financial services 'gave birth' to fully virtual banks that do not have a single office – only a legal address. Also in 1995 opened others banks that offered Internet banking customers to a new level, fully utilizing the communication and service capabilities of the Internet.

²¹ http://www.ifs.ru/upload/reality_of_virtual_banks.pdf

²² Payment System of Russia in 2008, Payment and Settlement Systems No. 20

Today the system of banking services via the Internet successfully employed not only in major Western banks such as Citicorp, Bank of America, First Union, Wells Fargo, Union Bank and others, but in hundreds of medium and smaller banks throughout the world. Even a new term for Virtual Bank - branchless bank, which exists solely on the web. First banks' sites in the Internet was made in mid 1990s. Before, banks had experimented with different on-line forms of access to bank accounts – mostly using closed systems; customers accessed banks through dial-up telephone channels. Such systems confined bank's and potential clientele since involved extra expenses from customers and the bank. Internet spread brought the wide use of distant account management; credit organizations saw the prospect of this facility in bank business.

In Russia, setting up banks' Internet sites was launched before August 1998. "Avtobank" was the first Russian bank to offer its customers access to your account via the Internet. The financial crises led to ultimate distrust towards banking system – impeding the process of introducing interactive financial Internet programs. When economy hit by the crises showed tentative sign of stabilizing new electronic technologies again got into the spotlight of Internet users (Scheglakova A, 2007).

In contrast to foreign banks that surged deposits rates (average on-line deposit's rates reach 4 percent whereas that of traditional equals 1.5 percent), Russian banks turned to a principally different way to win customers - they brought down tariffs on major bank operations. As a rule, Russian banks target first of all corporate clients when starting with serving on-line. Today, more than 100 web-sites of Russian banks are registered. Russia still lags far behind in terms of e-services popularity. In most cases, banks' sites host information and only some of them offer on-line accounts access and managing²³.

²³ "Payment System of Russia in 2008", Analysis and Statistics
http://www.cbr.ru/eng/analytics/prs20_e.pdf

Current information technologies in the banking and financial servicing markets

Today in a period of fast development of computer and telecommunication technologies it is hard even for specialists to operate with definitions and materials not traditional for banking business. In modern finance practice it is often possible to hear many unfamiliar expressions like “e-commerce”, “e-business”, “internet-shop”, “virtual stock-exchange”, “B2B or business to business”, “B2C or business to consumer”, etc. "Home Banking", "E-banking", "Internet-banking", "PC banking", "Online Banking" and many other examples of modern terminology recently have been added to the lexicon of bankers (Ivangok C., 2004). However, after sufficient familiarization with “electronic” terms it is possible to notice that they are essentially identical to “real” ones. Electronic commerce is basically a usual commerce only with utilization of computer technologies (telecommunication networks); internet-shop is a combination of traditional shop and a web page that allows customers to order goods from their computers through Internet; virtual stock-exchange – is again an integration of real exchange practice and Internet technologies that provide possibilities of securities trade (and other derivative selling and buying) without leaving one's office or an apartment and participating in a rather hectic experience of gesticulating and screaming together with other brokers. The appearance of Internet-commerce came as a result of comparatively new banking products such as: servicing of Internet-shop payments, electronic certification, mobile banking (utilization of mobile connectivity and SMS messages), virtual payment cards and other instruments that are the result of information technologies development (Terashima N., 2001).

According to Ivangok C. (2004), Electronic commerce has two main areas: the sector of "Business-to-Business" (B2B), this form corresponds to transactions between entities and sector "Business-to-consumer" (B2C), this form corresponds to transactions between individuals and legal entities. There is one more sector of electronic commerce, which includes transactions between two consumers "Consumer-to-consumer". The largest market share of Electronic commerce sector is "Business-to-Business". Electronic data interchange (EDI) applying has allowed corporations to use it and significantly reduce costs. Originally they were based on the electronic exchange of data between the participating companies. In this case, the initial costs for the organization of private communication network have been

very high and limited the volume of B2B transactions (Babayan. M.,2005). In terms of profitability B2B sector is recognized as the most promising. All payments are held in the network between the buyer and seller connected with banks .

The researchers of banking sectors adopt different terminologies and group the technologies in different ways. This thesis adopts the terminology defined by Seitz J. (2001). The author states that virtual or distant banking has 4 different ways or technologies of access:

- Telebanking (telephone or mobile connection);
- Call-centers.
- Mobile banking;²⁴
- PC-banking, Internet-banking or online-banking (Internet access);

1. Telephone banking (telebanking) is at the moment the most popular form of virtual banking in leading financial countries and is gradually introduced in developing states. The main advantage of remote banking technology is creating comfortable conditions for the consumers of banking services. “Tele banking refers to the services provided through phone that requires the customers to dial a particular telephone number to have access to an account which provides several options of services” (Rahman M., 2009).

To deploy a telebanking system a financial institution (a bank) creates an information system that consists of a computer (with corresponding software and hardware) that is connected to bank PBX²⁵. Bank server stores information regarding accounts states of clients. When a client decides to use such a system (by pushing a respective button on a telephone) he practically sends a digital code or signal to an institution. The hardware deciphers the code and converts it to a request to a data base of a bank, receives an answer in transforms into a voice form and sends it through a telephone line afterwards.

From client perspective it is perceived as follows. He or she calls a specified number and hears an answer electronic operator who proposes to switch a telephone to the tone mode. After that it is required to push certain buttons to enter operations menu and some others to receive further services. Afterwards a client needs to insert his unique number, password and operation code. E.g., a client wants to pay his utility bills.

²⁴ This is a complex system of bank account management through a cell phone or (Personal Digital Assistant) technology with wireless access .

²⁵ Automatic telephone system.

Answering requests of an electronic operator he enters required numbers. The system performs respective operations and informs a client that the process has been finished successfully and is registered under a corresponding number. Respectively, even if a client is on a business trip or on vacation he is able nevertheless to inquire as to the state of his account, receive information on interest and currency exchange rates, prices of securities, transfer funds from one account to another, convert currencies etc.

Telebanking system was the first distance banking system. The first experiments on the introduction of remote access have been carried out by HN western banks in the 80s. Their systems were improved in parallel development of digital communication and computing. English National Westminster Bank was one of the first banks that have established themselves in the remote access system. Client to dial in to the bank by phone and in real time might offer simple: to make transfers of accounts within the bank, buy and sell foreign currency to the standard payments. System provides the customer access to account management by using the five-digit code and made it possible to transfer money between two accounts within the bank and pay bills. Despite the apparent conservatism and adherence to traditions, the British banks, driven by intense competition, searched for and actively introducing new forms of work with the client.²⁶

In the U.S., telebanking services got a rapid development. One of the pioneers in this case was the North Carolina National Bank, which in 1990 offered its customers more than 30 services and transactions via the telephone system, which was created by a fairly large Call-center, which was later improved with the reduction in the number of operators. In 1990, the daily number of calls to the system was about 200 thousand.²⁷

In the U.S., more than 80% of companies use in their work call-centers. The greatest number of users in countries such as Sweden, Norway, Finland, Denmark and the Netherlands, Banks in France, Austria and Italy don't want to move away from the traditional model of retail customer service through its branch network. Rapidly implemented system of remote banking services in Germany and Spain. According to the well-known company Datamonitor, in early 2002 in the United States operated 50.2 thousand call-centers, and in Russia at that time worked not more than a ten of such centers (Muravyeva A, 2005).

²⁶ For more information see: The bank, which is always with you // Banking technology. - 1999. - № 4. -P. 15-16.

²⁷ Call-center for the bank: fashion or necessity? // Banking technology. - 2003. - № 3. - P. 59-60.

2. Call-centers. Users of banking services especially value real communication with bank representatives and reliability of information they receive from them. Therefore large financial institutions invest heavily into development of call-centers which are a type virtual banking in a sense that a client is able to acquire information on practically every aspect of his account and services used 24/7.

It is also necessary to point out a constant development of such modern banking systems as:

- Automatic evaluation systems of clients creditability before providing a credit or a credit line.
- Systems of centralized education for personnel and clients.
- Digital settlements systems in interbank area.

All of those systems allow to substantially cut costs of operations as well as increase effectiveness and reliability.

One important feature of call-center is the ability to provide each client personalized service. mechanisms included in the call-center can identify the caller and retrieve the available information about him, his ordinary demands and requirements, as well as the time of his last call to the company ,respectively, the operator will be more prepared to talk. In addition, call-center logs and automatically generates reports on its activities, ie. level of customer service can be defined by parameters such as number of calls of subscribers, the average waiting time subscriber to the queue, the percentage of calls, callers interrupted while waiting, etc.²⁸

Currently, the call-center is one of the most important places in a number of tools to work with clients. Not by chance banks, which support relationships with customers is the foundation of the business, were among the main consumers of this technology. Presentation of the terms of tasks undertaken by banks with the help of call-center, gives the following table (Krukov G. , 2008):

²⁸ For details. see: Call-center for the bank: fashion or necessity? // Banking technology, - 2003. - № 3. - S. 59-60.

The objectives of call-centers	
Information and Referral Service for clients	Channel to convey to customers information
Cost-effective system support for remote clients	Dispatching office of the bank
A single standard of service clients regardless of where their location	24 hours support for card holders at the local and international level

Table 5 The objectives of call-centers

In connection with the above mentioned objectives for call-center so that it can effectively address the challenges that confronts him the bank must meet certain requirements. According to Krukov G. (2003), a sample list of requirements might look like this:

1. 24 hour availability.
2. Queue minimizing, access to agents / fast connection.
3. Minimizing the communication time with the customer call-center
4. Optimization of the sequence of compounds on the basis of:
 - remote client (Intercity, city);
 - communication used by the customer (landline, mobile);
 - identified purpose of the call (what number dialed, "answers" answering machine);
 - priority call (VIP-client, the debtor, to recall and, etc.).
5. The distribution of incoming calls by groups of operators in accordance with the qualification possibilities of the latter.

6. Ability to maximize customer satisfaction without attract agents / tellers with an extensive system "Dialogue" with intelligent auto-informer.
7. Presentation information on the screen (text greetings, answers, information about the caller and details of his account, transactions, etc.) simultaneously with the arrival of a call (efficiency).
8. Implementation of the canvassing customers, partners, subsidiaries and offices in order to alert the survey, marketing, advertising, etc. (telemarketing).
9. Full control over the activities of agents / tellers. Documentation and analysis of statistics of calls, the quality of dialogue systems, the effectiveness of the agents.
10. Information protection and security of data.

Thus, using the phone as a long distance e-banking service, which is widely used in banking abroad. The next stage of development - the so-called electronic banking - has been covered very quickly. In this scheme, a client relationship with the bank carried out by an individual channel using a computer and modem, which allowed to conduct banking transactions in real time. It was replaced by internet banking. Further development of long distance banking predetermined use in the banking industry new means of communication. This is especially Internet and mobile phone networks, which significantly expanded the capabilities customers after all, for the realization of their interaction with the bank, required the usual html-and wap-browsers that are installed in almost every modern laptop or mobile phone.

3. Mobile banking is a successful combination of mobile phone services and Internet capabilities. "Mobile banking (also known as M-banking or SMS banking) is a term used for performing balance checks, account transactions, payments etc. via a mobile device such as a mobile phone. Mobile banking is most often performed via SMS or the Mobile Internet but can also use special programs called clients downloaded to the mobile device" (Rahman M., 2009). Banks try to take advantage of the rapid development of mobile phones functionalities, of the large diffusion of this kind of terminals in all countries and generations of consumers, and of their easy use - at every hours of the day - inside and outside the areas of Internet access (Chaix L., Torre D., 2010). At first clients were able to control only their mobile accounts. Later as a result of collaboration between mobile operators and banking institutions it became possible to extend those capabilities to the point that nowadays it is possible to a large degree to manage one's banking account by using a mobile phone exclusively But the

most important direction of development of e-banking services in foreign banks became the Internet banking.

4. Internet-banking.

Internet as areas of information can be described the following features (A.Turetskaya, 1999) :

1. Users can interactively access the network infrastructure.
2. The information is structured in a relatively small portion (packets) between which there a correlation, which allows navigate from one package to another.
3. Most information is organized in pages, possibly illustrated in different ways (charts, drawings, animation, etc.).
4. There are no significant barriers and constraints to be placed, send and receive text (information) in contrast to other means of communication. The Internet creates quite an unusual situation for the traditional economy, which is called many things: market Cyberspace or global market . Its essence lies in the fact that The Internet creates a single virtual cyberspace with typical to the economic environment (market) interactions and interactions of participants.

Cyberspace is the collection of information resources available on the World Wide Web. The term coined by science fiction writer William Gibson.

Recent advances in information and communication technologies have led to the creation of a global electronic environment, which can be carried out economic activities and defined In as "an environment in which any company or individual, in any location of economic systems can communicate easily and cost effectively with any another company or individual about working together, to trade, to exchange ideas and know-how, or just for fun" (official documents of the European Commission).

Internet banking refers to the use of internet as a remote delivery channel for banking services which permits the customer to conduct transactions from any terminal with access to the internet (Rahman M., 2009). Internet banking is a mechanism for implementing the functions of the bank through a transformation of the financial flows to the information and using technological possibilities of the Internet .

Implementation of Internet banking implies the existence of the bank site on the Internet. Internet banking as type of virtual banking is currently the most advanced, convenient and potential of all electronic instruments. A client is not required to purchase or install any software on a computer. It is sufficient to receive from a bank a login, password and a special disk of USB-drive which provides electronic key and signature capabilities (Koshelyev V., 2009). This is exactly an area where bank receives significant opportunities in the area of services provision and for the client in receiving those services in a most convenient way possible.

The spread of Internet banking

The spread of Internet banking worldwide

In developed industrial countries investors always got a lot of attention to the Internet technologies there are banks that are fully based on web technologies - a virtual banks, that do not have a single office – only a legal address (Siam A. Z., 2006). Such institution is also called a “Branchless bank” and is represented by a virtual office that performs practically the same functions as a traditional outlet. Total costs of managing such a bank are significantly lower since it is possible to rent smaller rooms, fewer employees and less storage space.

However, due to a technical complexity of such project realization (and, respectively, high costs of deployment) on one side and mistrust from clients on the other such “web banks” are currently represented by few examples or are tightly connected with certain traditional financial institutions. Developing countries unfortunately are still quite far from this type of servicing. Perspectives of Internet banking development in a country in largely depend on the number of Internet users, as well as the degree of development of information and communication technologies. Banks through virtual technologies were able to extend or modify the offer of products and services. The most reliable and well-known banks in America and Europe are investing large sums of investment in Internet banking system, which indicates the adequacy of the system, its efficiency in order to stay abreast of new technological solutions.

Unfortunately, the regular statistics are not yet available. Therefore, in this master thesis used the estimates and the results of individual studies.

According to VeriSign²⁹, in 2004 the world's only been registered 60 million Internet users. The greatest increase in the number of users in 2003 were registered in China (an increase of 37%), Germany (40%), South Korea (32%) and Japan (38%). In the U.S., their number, on the contrary, for the year decreased by 6%. The maximum number of users continued to account for it in U.S. - 168 million in January 2004. This is followed by Japan and China (80 million up to 2003).

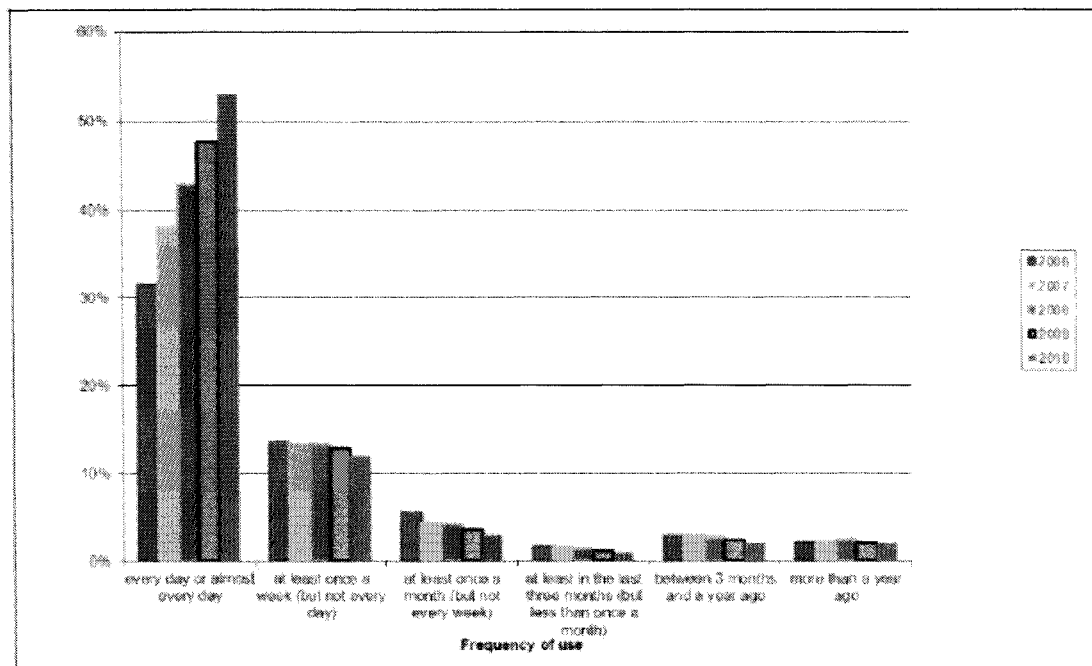
Total, according to VeriSign, the beginning of 2004, there were 580 million Internet users. According analysys.com, this region is, therefore, take 2nd place after the United States on the prevalence of the Internet. At the end of 2004, the number of users of the global network in the country was estimated at 103 million.

According European Digital Agenda³⁰ in 2010, 74% of the EU population had used the Internet at least once, an increase of 4 pp from 2009. Even more remarkably, frequency of use continued to rise. By now, nine out of ten people that have ever used the Internet are regular Internet users.³¹ Regular Internet users currently represent 65% of the population, up from 60% in 2009. At this rate, the European Digital Agenda target of 75% will already be met in 2012, well ahead of 2015.

²⁹ **Verisign, Inc.** (NASDAQ: VRSN) is an American company based in Reston, Virginia that operates a diverse array of network infrastructure, including two of the Internet's thirteen root nameservers, the authoritative registry for the .com, .net, and .namegeneric top-level domains and the .cc and .tv country-code top-level domains, and the back-end systems for the .jobs, and .edu top-level domains. Verisign also offers a range of security services, including managed DNS, Distributed Denial of Service (DDoS) mitigation and cyber-threat reporting

³⁰ http://ec.europa.eu/information_society/digital-agenda/index_en.htm

³¹ Regular Internet users are defined as those that use the Internet at least once a week.



Source: Eurostat Community Survey on ICT Usage in Households and by Individuals

Figure 3 Internet use as a % of population by usage frequency

According to the company Gomez Advisors (specializing in the research activities of banks, financial institutions and brokerage firms) 39 of the top 100 US banks are already providing online services for paying bills (in 1998 these banks had 17). 62% of banks offer on the Internet about making transactions in real time. The number of customers, users in the US is at a level of 4-5% of the customers of the bank, but this figure is growing every day. The total volume of transactions conducted outside of bank branches (ie, ATMs, telephones and computers) in the U.S. is growing annually by 15% and now amounts to more than 50% of all banking transactions (Minervin, 1999).

The number of traditional banks, which have an internet connection service, 89 of 100 biggest banks in the U.S. for more than 70% provide online services. At the beginning of 2003 in the US are 29 pure Internet banks. Most of them were formed in 1999 and 2000 by various financial institutions (Vanin , 2004) .

The number of Americans who use the services of Internet banking in 2004 increased by 17% compared with 2002 exact number of users of Internet banking is not known. But we know that for I quarter. 2004 in 10 major U.S. banks took advantage of these services, 4.6 million Americans. According to Jupiter Research in 2003, 29.6 million U.S. households used online banking services, and only 50% of them are carried out through Internet banking payments.

Among the most important motives for using of Internet banking Americans called the opportunity to save time, use bank services at any time, to better control their accounts.

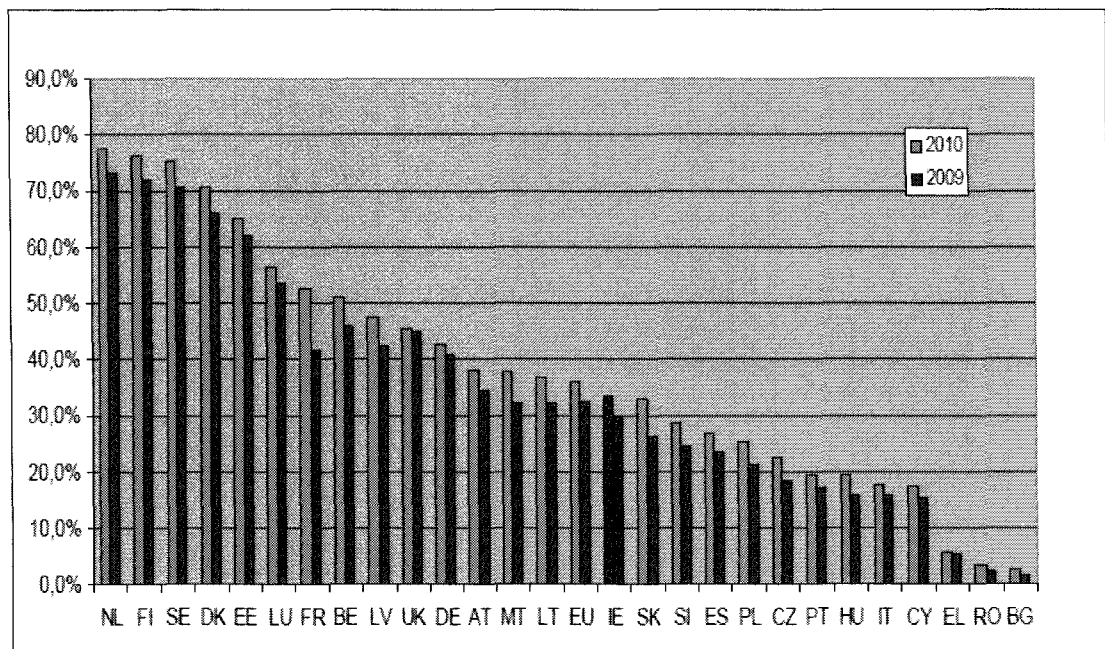
In Europe, online banking is now used by approximately 4% customers and 60% of the banks. At the present time in Western Europe (Germany, Spain, France, the Netherlands), electronic banking is twice than in the US. The highest rating among consumers or the quality of Policy and online services are the following banks: Security First Network Bank; Wells Fargo Bank; Citibank; Salem Five Cents Saving Bank; Bank of America (Burdinskiy A., 2001).

According to a report well known market research company Fitch IBCA, clients share a number of major European banks using online banking, more than 10%, or 500 thousand people (at the end-1999): SE Banken (Sweden) - 380 000 customers (25% of total number of customers - the maximum percentage), MeritaNorbanken (Finland / Sweden) - 1.03 million (15%), Deutsche Bank (Germany) - 650 000 (8%), Barclays (UK) - 540 000 (4%), BSCH (Spain) - 500 000 (2%). Another important indicator of the market - the number of banks, development colliding Internet banking. In the summer of 2000 already 71 of the 100 largest U.S. banks provide their customers with Internet service, including including - 9 of the 10 largest, including the flagship of the American banking business: Citicorp, Bank of America, Chase, Bank One, First Union, Wells Fargo.

According to Forrester research, the number of Europeans who bank online has grown by 30% from 69 million in 2006 to nearly 92 million in 2009. Despite that growth, the behavior of online banking users hasn't changed much. Checking account balances, looking at statements, and viewing recent transactions are still the most popular online banking activities in Europe. Functions like printing statements and setting up automatic payments are not much used. There are substantial differences in online banking functionality use across Europe, often due to underlying differences in banking and payment systems and habits. E Business executives should encourage their online banking customers to make more use of the available functionality, particularly around transactions. Online banking continues its regular growth. The most active Internet banking services are developed in the northern countries - Finland, Norway and Sweden. There it went back to normal in approximately 90% banks and 20% of users. One-third of Swedes use the services of online banking. According to the Swedish Association of banks in this country, of Internet banking services used by more than 3 million people, or nearly 30% of the population, making Sweden one of the world leaders in

the development of systems interent banking. A sufficiently high degree of connectedness to European population (60% of households used the network) with led to the fact that Swedish banks were among the first to offer their services via the Internet. To date, the undisputed leader of Internet banking in Sweden found Skandia Banken, which is a division of the insurance group Skandia(Semenov A. , 2002).

According Eurostat Community Survey in 2010, the share of citizens engaging in online banking reaching 36% at EU level. It became a majority activity in the Nordic countries, the Benelux and France, and a mainstream way of banking everywhere else, with the exception of Greece, Romania and Bulgaria, where it remained a rarity in 2010.³² Looking at the relationship between 2010 levels of online banking and its growth, those countries with high levels have continued to increase strongly, whilst those with low shares have seen low or no growth at all, just like in the previous years.



Source: Eurostat Community Survey on ICT Usage in Households and by Individuals.

Figure 4 Use of online banking in % of citizens Use

³² http://ec.europa.eu/information_society/digital-agenda/scoreboard/docs/pillar/usage_content.pdf

The yield on the retail banking market in Internet companies, such as Yahoo!, Egg, E-Trade, along with opening up prospects for the development of Internet banking and e-banking systems services in general, and required from traditional banks significant investment in developing their own electronic technologies. In England currently there are many large net Internet banks , banks such as Egg, Smile, First-e, Abbey National. At the same time are strong competitive position in the online service have traditional banks such as Barclays, HSBC, Lloyds TSB. Very revealing an example of the British Internet bank Egg - on a the web site Online bank offers a full range of services, including the purchase of insurance policies, securities trading, and even financial consulting. (Kuzmenko A. 2002).

In 2009 comScore, Inc., a leader in measuring the digital world, released its first ever ranking of the most visited online banking properties in Europe, based on February 2009 data from the comScore World Metrix audience measurement service. In total, 104 million European Internet users visited an online banking property during the month, representing more than one-third of Europe's total online population. In February of 2009, the most popular online banking property in Europe was French-owned Credit Agricole, with 8.9 million visitors, followed by two U.K. properties, Lloyds Banking Group plc (7.3 million visitors) and The Royal Bank of Scotland (7 million visitors). HSBC, the world's most popular non-U.S. banking property, ranked seventh with 5.3 million European visitors.

“Banking had become an important online consumer activity, and this is especially true in these uncertain economic times,” said comScore co-founder and chairman, Gian Fulgoni. “The global recession has made people more aware of the value of money, more focused on their savings, and more determined than ever to keep a close watch on their spending. Online banking has made personal financial management significantly easier, but it also represents an important channel for banks to be able to manage their customer relationships during a time when maintaining customer trust and loyalty is paramount.”

According to the Financial Fraud Action UK ³³ company which conducted the research, this points to the fact that more than 50 percent of regular UK internet users (41.4 million) are banking online. The number of Britons banking over the telephone has declined to 14.5 million from a high of 16.1 million in 2005, the research indicates. In 2009, 26.8 million British adults have used at least one of online or telephone banking. The survey has shown

³³ http://www.ukpayments.org.uk/uk_payment_schemes/financial_fraud_action_uk/

that the most popular tasks carried out by individuals who bank online on their main current account are checking account balances and checking statements, used by 95 percent and 83 percent of users, respectively. Phone banking still remains a popular means for Britons to enquire about the state of their account, with more than six in ten phone banking customers using the service in this manner, compared with less than two in ten people doing this who bank online. Of the 17 European countries individually reported by comScore Media Metrix, online banking usage was highest in the Netherlands, where more than half (52.9 percent) of the country's total online population engaged in the activity. Online banking had the lowest reach in Russia, where only 6 percent of the total online population visited an online banking site in February. Overall, France had the highest share of online banking customers in Europe with 16.9 percent, followed by the U.K. (16.4 percent), Germany (14.3 percent) and Spain (6.2 percent).

European Online Banking Reach By Country February 2009 Total Europe, Age 15+ - Home & Work Locations* ³⁴		
Country	% Reach of Total Country Online Population	% Share of Total European Online Banking Users
Europe	33.9%	100.0%
Netherlands	52.9%	6.1%
France	49.9%	16.9%
Sweden	48.4%	2.7%
United Kingdom	46.1%	16.4%
Belgium	39.0%	2.0%
Germany	38.6%	14.3%
Denmark	36.7%	1.2%
Spain	35.2%	6.2%
Norway	34.4%	1.0%
Finland	33.1%	1.0%
Ireland	28.4%	0.5%
Turkey	28.0%	4.6%
Italy	26.9%	5.5%
Austria	23.4%	1.0%
Portugal	17.2%	0.6%
Switzerland	15.9%	0.7%
Russia	6.0%	1.7%
All Other**	N/A	18.0%

Table 6 European Online Banking Reach By Country, February 2009

³⁴ European Online Banking Reach By Country February, 2009 ,Source: comScore World Metrix

Online banking delivers highest channel satisfaction. According Ernst and Young research Globally, 83% of banking clients are satisfied with online banking (Germany: 80%). This is the highest score of all banking channels. The global score on mobile banking is relatively low mainly because of users in rich countries. A majority of Chinese(54%) and Indian (59%) users is satisfied. More than 40% of Europeans will use online banking in 2012. Clients are switching from branch visits to online banking for standard tasks.

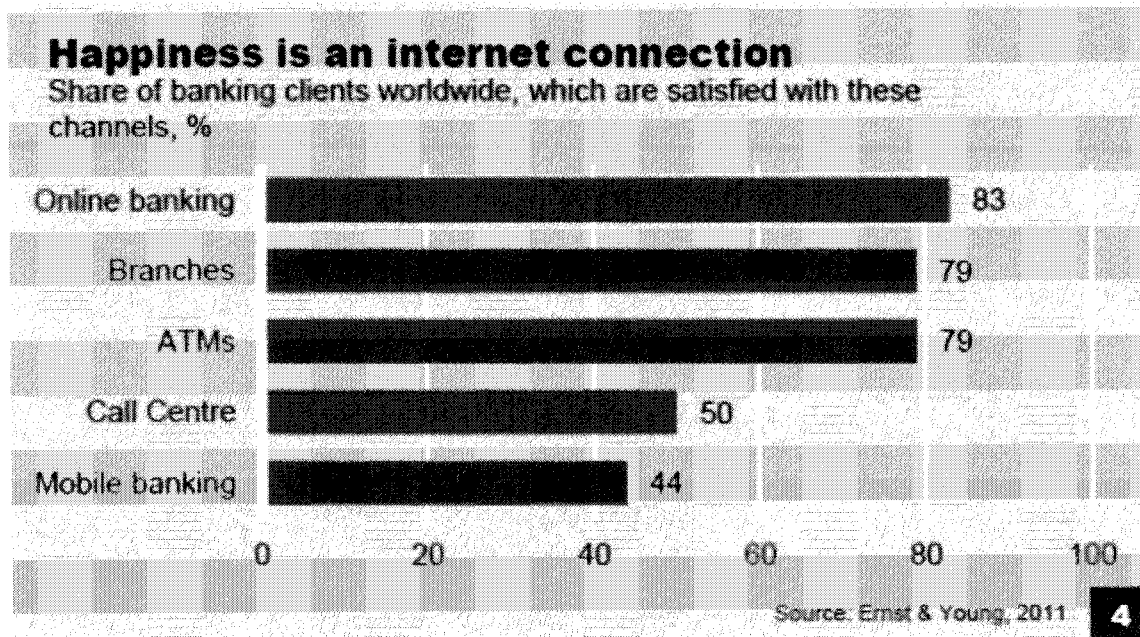


Figure 5 Happiness is an internet connection

A European Union report showed big differences in the level of Internet use among EU nations, with Benelux and Nordic countries leading the way and eastern and southeastern Europe generally lagging behind.

In the Netherlands, 78% of households are connected to the Internet, compared to just 16% in Lithuania, according to the report from the Eurostat statistics agency, based on data gathered in early 2005. The Dutch also lead the way in domestic broadband access, with 54% of homes linked up compared to 1% in Greece, 4% in Cyprus and 5% in the Czech Republic.

In Greece, 73% of the population say they have never used the Internet, the survey said, well above the EU average of 43%. More than half the citizens of the Czech Republic, Italy, Latvia, Lithuania, Hungary, Poland and Portugal have never logged on to the Net. Among students, 93% across the EU have used the Internet. Overall, the survey showed a rise in Internet connections since 2004. Domestic connections in the EU rose from 43% to 48%. The number of homes connected to broadband rose from 15% to 23%.

For EU businesses, Internet access rose from 89% to 91%, while broadband connections increased from 53% to 63%. At least 90% of businesses are linked to the Internet in all nations included in the survey, except Latvia, Hungary, Cyprus, Lithuania and Poland. In Sweden, Denmark and Finland over 80% of firms have broadband access, compared with less than 45% in Cyprus, Poland and Greece.

The Spread Of Internet Banking In Russia

Since 1994, when Russian citizens first acquired access to the World Wide Web, Internet has enjoyed steep growth in Russia. The number of people with access to the web is constantly increasing and the Internet business sector is flourishing. The government has also embraced the concept of maximizing the use of Internet technologies to increase the efficiency of state functioning and the quality of state services³⁵(Internet in Russia, May 2011).

Internet-banking functionality growth for physical persons resulted in increased remote operations. Share of internet physical person transactions tripled (from 8% to 25%) in 2010-2011. Banks cut their service expenses since more clients make transactions without operators' assistance³⁶. Banks with developed internet-banking functions achieved better results at the retail market . The World Bank Development Indicators³⁷ show exponential growth of Internet users in Russia from 2002 on, with the number of people with access to

³⁵ <http://www.scribd.com/doc/57843581/The-Internet-in-Russia-factsheet-via-ModernRussia-com>

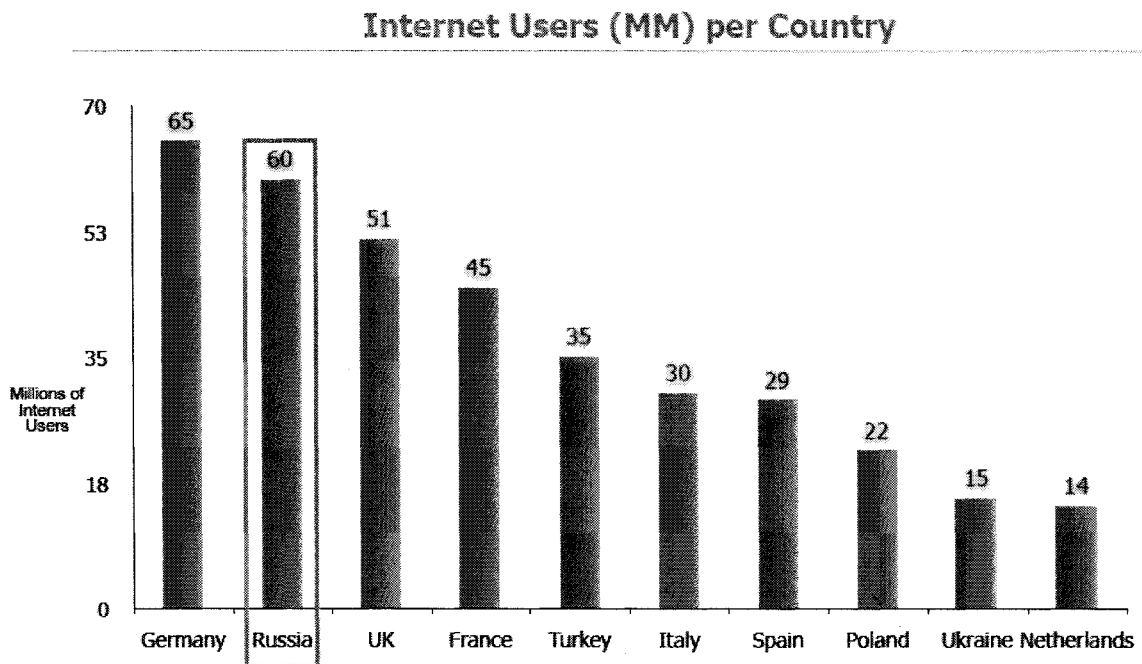
³⁶ http://raexpert.org/researches/banks/internet_banking/

³⁷ http://www.google.com/publicdata/explore?ds=wb-wdi&met=it_net_user&idim=country:RUS&dl=en&hl=en&q=internet+penetration+in+russia#!ctype=l&strail=false&bcs=d&nselm=h&met_y=it_net_user&scale_y=lin&ind_y=false&rdim=country&idim=country:RUS&ifdim=country&hl=en_US&dl=en&ind=false

Internet reaching 59.7 million in 2009, indicating 31.5% growth. According to the Independent³⁸, in March 2011 Russia was the second largest country by number of Internet users in Europe. “Russia, France and the UK followed behind Germany with 47.4 million, 42.3 million, and 36.2 million visitors respectively “(www.independent.co.uk)

Internet Users - Europe

Russia became the 2nd largest Internet market in Europe in 2010



Sources: Internetworldstats (2010)

Figure 6 Internet Users - Europe

According to Yandex³⁹ statistics, Internet penetration in Russia amounted in 2010 to 43% of the country’s population, or 60 million people.

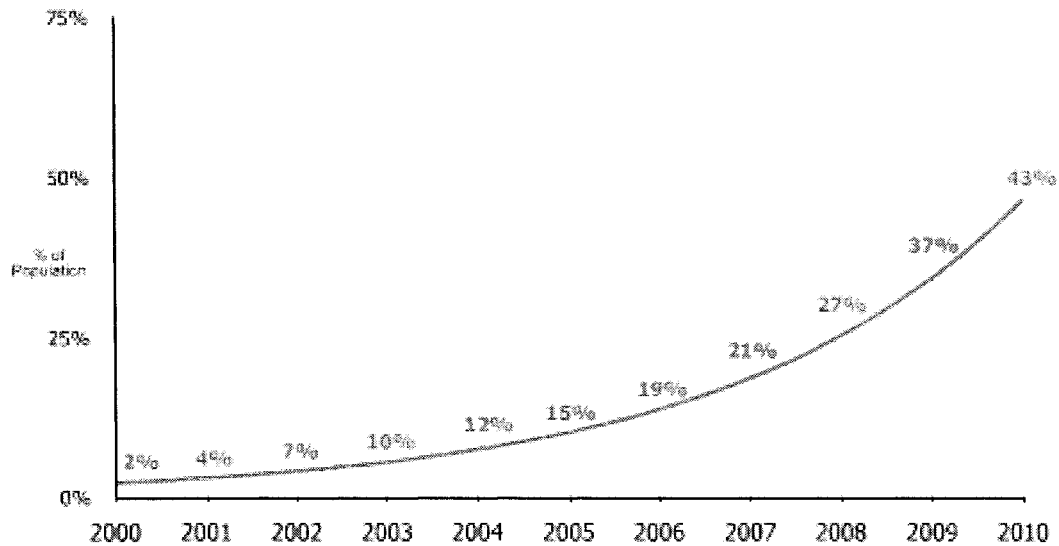
³⁸ <http://www.independent.co.uk/life-style/gadgets-and-tech/germany-russia-have-the-largest-internet-audiences-in-europe-2279979.html>

³⁹ <http://siberianlight.net/russian-internet-market/>

Russian Internet Penetration Growth

Russian market is growing extremely quickly

Internet Penetration in Russia (2000-2010)



Source: International Telecommunications Union



Figure 7 Russian Internet Penetration Growth

By the end of 2010, there were 60 million internet users in Russia, compared with 65 million in Germany and 51 million in the UK. What makes this exciting is that 60 million is a far smaller percentage of Russia's population than 65 million is as a percentage of Germany's population. Take a look at this slide, and you'll get a great idea of how potential there is for growth in Russia's internet user base – something that's bound to interest investors.

Payment System of Russia and Information Technologies

Russian Banking System

Intensive development of the Russian banking system that happened in the last decade can be explained by the process of transforming of a planned economy to a market. In the first stage, in 1988-1993 active development of the banking system was determined by its lack of services, distribution, centralized credits, inflation at the same time with low cost of funds raised. During this period, was founded about 2500 commercial banks (Trubovich E., 2009).

The modern system of banks in Russia was formed at the present time and consists of two levels: Level 1 – Central Bank of Russia (CBR), 2 level – Commercial Banks (CB) and other financial and credit institutions, carrying out banking transactions (The Federal Law of 10 July 2002 N 86-FZ "The Central Bank of Russian Federation (Bank of Russia)"). Russia's banking system includes the Bank of Russia, banks, branches and representative offices of foreign banks, non-bank credit organizations, unions and associations of credit institutions, banking groups and holdings.

CBR is the main bank of the state. It is independent from administrative and executive authorities. CBR - economically independent institution. The second tier of the banking system is presented, especially a wide network of commercial banks. CB in recent years, reduced almost to zero tariffs on cash management services for legal entities and began to pursue an active policy of interest rates on deposits of individuals. The high real return on financial markets together with real appreciation ensure sustainable development of the banking system. The special place occupies Vnesheconombank, converted to a bank for servicing the external debt of the Russian Federation, as well as the Bank for Reconstruction and Development established by the state to fund government programs (Federal Law № 395-1 of 02.12.1990 year. "Banks and Banking Activities").

Economic disruption occurred at a critical redevelopment of financial relations in the Russian market. The main levers of fracture of steel - mortgage crisis in the U.S. and the emergence of panic as a result of active work of unscrupulous media. Outflow of residents from Russian

banks, has become an unexpected "surprise" for the latter, already accustomed to a stable dependence on external finance. Peak of activity of credit sales dramatically receded. In 2009 Russian banks have reduced the mortgage loans no less than in five times compared to the same period of 2008. During January, February and March 2009, it amounted to approximately 27-30 billion rubles, whereas in the first quarter of 2008 it was 150 billion rubles (Trubovich E., 2009).

As a result of anti-crisis strategy rate of evolution of the banking system declined by about half. In recent years, Russia's banking system is developing intensively, and in the development of positive tendencies. Credit institutions have to seek maximum transparency and openness to their customers. Introduced innovative business models, new banking technologies (client-bank money transfer, debit and credit cards, etc.), various types of loans (consumer, mortgage, etc.).

Nevertheless, all indicators of the banking system in Russia is significantly behind the developed countries. According to Trubovich E. (2009) despite high growth, the bulk of the loans does not meet the challenges of growth that the country is facing. In the structure of the sources of investment financing of Russian enterprises the share of bank loans remains compared with developed countries very small - only 8-10% (USA - 40% EU average - 42-45%, Japan - 65%). Most of the population is not included in the system of banking. According to statistics, only 25% of Russian population have bank accounts, while in Western European countries - all of the adult population. Less than 10% of the population use plastic cards, while in developed countries for each inhabitant stands 2.1 cards (Trubovich E., 2009).

Among the reasons for the low level of banking system development economists call the following (Trubovich E., 2009):

- Due to the fact that economic growth in Russia is supported mainly by energy resources and exports, the state does not pay enough attention to the development of the banking sector.
- The Russian banking system is not an attractive investment area, its market capitalization is at an unacceptably low level.
- Low level of monetization of the economy slows down its development and the development of the country as a whole.
- Lack of infrastructure provision of banking services.

- A significant proportion of cash handling and cash flows of the state, which take place outside the banking system.
- Lack of adequate protection from the state of commercial banks, which are central to the whole credit system of the country, etc.

To reduce the risks necessary to carry out regular analysis of how credit customers and their own financial sustainability of the bank. Currently, banks are actively used marketing approaches in the implementation of banking products and services.

"The concept of marketing in the banking business - is focused on the consumer target philosophy and strategy of the bank. It is based on an analysis of the full range of parameters that affect the financial and credit system in general and banks in particular. Based on the marketing concept, preparing proposals to optimize the bank's activities and carried out comprehensive planning of internal and external activities of the bank. "

The Development of Payment System in Russia

Active evolution of payment systems in developed countries was experienced over the past forty years. Currently, the highest stage of payment system's development based on the latest electronic technology and the Internet - electronic payment systems. Intensive development of the Russian banking system in the last decade can be explained by the process of transforming of a planned economy to a market. In the first stage, in 1988-1993 active development of the banking system was determined by its lack of services, distribution, centralized credits, inflation at the same time with low cost of funds raised. During this period, was founded about 2500 commercial banks (Trubovich E., 2009).

Development and formation of payment systems in the information economy of Russia took the following steps: *electronization, computerization, and connectedness* (Popova E. ,2010).

Table 1 presented these steps in more detail:

Stage	Contents
Electronization	Reforming the banking sector, the introduction of electronic technologies. Automation of settlement service
Computerization	Active development of the Internet, computerization of the population. Restructuring the banking sector. Improvement of payment and technology. The development of Internet commerce. Mass development of retail payment systems
Internetization	Macroeconomic stability. The growth of the banking sector. Active development of IT-technologies. The introduction of CRM technology, the emergence of electronic money. Development of Internet banking, payment terminals, mobile payments

Table 7 Stages of formation of payment systems

At the first stage in 1990-1997 years electronic technology have been introduced in the banking sector, as well as the emergence of the Internet. Banking reform contributed to the development of non-payment systems and competition. The development of Russian market of plastic cards began in 1991, but the lack of a unified standard has led to the fact that each payment system only accepts payments by its card. In 1993 there were payment systems based on magnetic stripe cards. Credit cards are distributed to the public rather slowly, and this despite the growing number of companies listing the salaries to its employees on the card accounts (Zhukov T, 2006).

The introduction of electronic technology for the implementation of interregional payments allowed banks to reduce the time of payments from 10-12 to 1-2 days. At the same time with the advent of Internet commerce in the network begins to gain momentum, and in 1994 the first commercial website offered visitors to enter credit card information to pay for their services. However, immediately the question arose about the security of payments over the Internet. Thus, the stage was characterized by systematic electronic payment system, the

growth of private payment systems, lack of legal settlement, operational risk, weak technological system.

The next stage is the *computerization* of payment systems (1998-2004.) This stage is characterized by rapid development of information technologies that have become the impetus of technology development of payment systems. Most technologies were borrowed abroad (credit cards, e-mail Interbank calculations in real time, etc.) and thus achieved complete automation of banking settlement procedures more comfortable and easy user interfaces are payment systems become a reality for payments through Internet. Intensive growth of the credit card market can be attributed to several factors:

Firstly, it is connected with the stabilization of economic situation in the country, and secondly, this contributed to the growth of confidence in credit institutions, as well as improving the culture of use of payment cards (Popova E.I., 2010). The rapid development of Internet and its penetration in the region create conditions for the development of electronic commerce, covering almost all market segments - from paying for utilities to purchase real estate - has led to the rapid development of electronic payment systems. There were payment systems that provide services for the implementation of electronic payments using electronic money ("Yandex», «PayCash», «Cyberplat" etc.).

According to Popova E.I. (2010), the rapid development of information technology was the impetus for the introduction of new information technologies in payment systems. During phase formation was achieved full automation of bank settlements, user interfaces, payment systems have become more convenient and comprehensible, accessible and was making payments through the Internet and mobile phones.

The last stage is *internetization* (2005-to date) presents the latest history in the development of payment systems in the information economy. Further growth of computerization of the population, the increasing spread of the Internet facilitates the rapid development of Internet commerce, and with it the availability of online payment for goods and services. It should be noted that if on the stage of electronization main task of the banks was to automate accounting and other operational and accounting departments, already at the stage of the computerization of these problems have been solved. The third stage is characterized by automation of customer relationships.

Thus, the process of computerization and the connectedness of society have led to changes in the monetary system, which can be characterized as an attempt by the emergence of new

types of money - electronic, that led to the development of electronic payment systems. Further expansion of the use of electronic payment systems is inevitable, since, despite some shortcomings, they have such undeniable advantages as convenience, high-speed financial transactions, ease of use, providing full control over the payments and their high security, anonymity, the ability to transfer to third parties. Effective use of electronic payment system ensures minimal time 'e costs and saving human labor, thus contributing to reducing costs, in addition, electronic payment systems, as a technical tool in reducing the volume of turnover of cash in the economy.

Competitive advantages of Internet banking to traditional banking services

Internet banking has many advantages over the traditional method of providing services both for banks and their customers. Competition is the primary cause of the beginning of internet banking by commercial banks. Originally internet technology seen as way to retain and attract customers, and cost-effectiveness, as distribute and perform banking services through the Internet much easier and cheaper than traditional build branches that require buildings and staff. (Egorova, 2004). The most important advantages of Internet technology in terms of the bank - is to support distributed work, the unification of client workstations, simplified administration, reduced cost of ownership information of complex. With ebanking all you need is an account number and a password. You don't need to know how to operate any complicated software program or banking system. You don't need any paperwork. Just sign in from any secure computer and a good e-banking site will clearly indicate how to access your personal banking information. To prove your identity, you may need to answer secret questions that you have chosen when you set up your account⁴⁰.

Internet allows to create virtual private networks of any complexity, provides excellent opportunities for the integration of information systems in the bank. There is no need to take the time off and drive to your bank branch and wait in long, unending queues to be served. Beside saving a trip to the bank you can check your balance whenever you need to regardless

⁴⁰ Advantages of Ebanking | eHow.com http://www.ehow.com/list_6510971_advantages-ebanking.html#ixzz1ueXelet1

of bank working hours. Online banks are open 24 hours a day, seven days a week. It is possible access your online bank virtually any time you need to, from anywhere in the world. Since most banks offer the option to bank online, you'll never be far away from your bank, no matter where you are.

Not only that, but you can pay your bills online as well and make any financial transaction; stocks and currencies and other investments can be managed with online banking from your home or office depending on the current financial situation. If you bank online, you can transfer funds. Some e banking sites allow you to purchase and manage other financial instruments such as mortgages, personal loans and lines of credit Also, the convenience of the data capture online makes it much easier to budget and track where your money goes; any charge-off will immediately be reflected in statements of account, increasing customer's awareness of his expenses.⁴¹ Online banks are open 24 hours a day, seven days a week. It is possible access your online bank virtually any time you need to, from anywhere in the world. Since most banks offer the option to bank online, you'll never be far away from your bank, no matter where you are.

It is necessary to point that apart from banking services themselves clients are able to receive a high-quality analytical information in the form of graphs, reports, analysis and news. Clients are able to choose the set of such data. For those who do not wish to browse bank's web page it is possible to receive necessary information in a form of e-mail subscription letter. That is the banks forms an email with respect to parameters desired by a client and send it a specified electronic address.

Moreover, a bank is able to simplify a procedure of documents exchange by attaching to a corporate web page necessary blanks of agreements, orders, notices and other relevant documentation in wide spread text formats. Internet-banking also allows performing functions of consulting since digital network provide possibility of convenient communication. For the most active participants bank may introduce a system which allows taking part in currency trades, selling and purchasing of securities, investment of funds and, most importantly, service electronic commerce. Thus, Internet banking has many advantages over the traditional method of providing services for both banks and their customers.

⁴¹ http://www.ifs.ru/upload/reality_of_virtual_banks.pdf

According everything mention in this chapter it is possible to conclude that today's distant banking technology is based on telephone channels, including mobile communications and Internet.

Distant banking technology has the following features:

- Extraterritoriality and the continuity of the system. Clients provides the ability to manage resources regardless its location and time of day.
- Accessibility. Means of access used by the client, should be affordable and widespread.
- Multiple access channels. The system must be able to use different channels in any combination.
- Interactivity of service. The system should provide ability to perform self-service, but the client should be able to choose between carrying out operations in an interactive mode and through the operator.
- Conduct operations in real time in cases whenever possible. Minimize manual handling operations. Technology should be arranged such a way that where possible eliminate or reduce the stage, requiring manual processing.

Today the management of bank accounts via the internet is the most interesting area of financial Internet solutions among a wide range of banking services provided in Internet banking systems. Internet banking includes the full range of banking services to clients. Internet banking can be a pillar of telecommuting in the securities markets and remote security, since they provide the carrying out of calculations and control of all participants in financial relations. As a result, commercial banks are expanding their capacity due to lower transaction costs, improve information exchange with customers, expand market segment and increase the rate of exchange-cash transactions.

Case study: Prospects for the development of remote channels of the Russian banking

This subpart will represent the empirical information gathered from the interviews.

The main goal of this study is to investigate the current state and prospects in development of Internet technology in Russia and its usefulness for the banking services. Case study is quite flexible method for this study and has a lot of strength, it allows to begin with broad questions and narrow their focus. In order to accomplish a good outcome data for this research were collected from different sources. That's why this research had the main focus on overview of the official documents, special literature and articles related internet technologies that is currently a main force that moves forward the development banking and financial systems in foreign bank, as well as in Russia and supplementary by the interviews with actors working in the environment related to the research question.

As it was written earlier in the methodological part of this work, primary data was used from interviews with representatives of particular relevance to the environment of the banking and financial spheres. During this research was conducted several interviews with representatives of the three largest Russian banks, these banks were: **VTB Group**, **Alfa-Bank** and **Citibank**. In these interviews were discussed the development of banking technologies today and the trends that will shape the development of information technology in banks in the near future. The three largest Russians banks are picked up for this case study, due to the fact that these banks have successfully used remote service methods in their activities and use internet-banking systems nowadays. This study focuses on international experience (internet banking and financial systems in foreign bank) and its adaptability to the Russian environment. Thus, the following tasks should be undertaken:

- Based on the experience the economically developed countries to identify key areas innovation activities of foreign banks and make a systematization of banking services abroad;
- Review the status and level of development of internet banking in Russia;
- Clarify the consequences and prospects of internet banking in Russia and to develop proposals toward at further expansion of its scope on the basis of the international experience.

The relevant information about the banks, and their Online internet banking service presented below:



World Without Barriers. VTB Group

- <http://www.vtb.ru>

JSC VTB Bank and its subsidiaries (VTB Group or the Group) is a leading Russian financial group, offering a wide range of banking services and products in Russia, CIS, Europe, Asia, Africa, and the United States.

The Group conducts its banking business in Russia through VTB Bank as a parent and 5 subsidiary banks. The Group's largest subsidiary banks in Russia are VTB24, Bank of Moscow, and TransCreditBank.

The Group operates outside Russia through:

- 15 bank subsidiaries, located in the Commonwealth of Independent States (Armenia, Ukraine (2 banks), Belarus (2 banks), Kazakhstan and Azerbaijan), Europe (Austria, Cyprus, Germany, France, Great Britain and Serbia), Georgia, Africa (Angola);
- through 2 representative offices located in Italy and China;
- through 2 VTB branches in China and India;
- 4 branches of VTB Capital in Singapore, Dubai, Hong Kong and New York.

2011 was a year of consolidation of the Group's Corporate and Investment Banking business, which provides its clients with a full array of banking and investment products including sophisticated structured solutions. VTB Capital, the Group's investment business, strengthened its client base and retained its leading positions in the Russian debt, equity and M&A markets. VTB Capital took the top spot in Russian Debt Capital Markets and Russian Eurobonds rankings in 2011, according to Dealogic, carrying out 48 deals worth c. US\$ 7.3 billion in domestic debt and 13 Eurobond issues of c. US\$ 2.6 billion (apportioned values). This constitutes market share of 26.1% and 11.3%, respectively.⁴²

⁴² <http://www.vtb.com/we/today/structure/>



<http://alfabank.com/>

Alfa-Bank has more than 200 branches in Russia and the CIS, and subsidiaries in Kazakhstan, the Netherlands, and the United States. The Bank's CIS branch network offers a full range of commercial and investment banking services to corporate and retail clients. Alfa-Bank's wholly owned subsidiary in the Netherlands, Amsterdam Trade Bank N. V., has a European banking licence. It primarily serves clients in import/export finance.

Alfa-Bank places a great deal of emphasis on expanding its investment services to foreign clients. FSA-regulated Alfa Capital Markets in London and Alforma Capital Markets in New York, a NASD/ SIPC-registered Broker-Dealer in New York, are well positioned to serve clients throughout the EU and North America.

About the Internet Bank "Alfa-click":

ALFA-BANK's Alfa-Click online bank by now has more than 100,000 clients, the bank's press service has reported. Over 200,000 bank clients already use Alfa-Check SMS banking services. The Alfa-Click online bank was launched in April 2006. At present from 12,000 to 13,000 new users join the system every week. The Alfa-Click website is daily visited by 15,000 to 20,000 clients, with an average of 4,000 operations conducted per day. ALFA-BANK regularly upgrades its distance service channels. Thus, to raise the security level, the Alfa-Click online bank introduced session passwords and a virtual keyboard. In addition, Alfa-Click users were given a chance to acquire mutual fund units. Subscribers to Alfa-Check services can pay their mobile phone bills by simply sending an SMS.

"Alfa-click" enables bank clients to conduct operations with their accounts. In addition to checking the state of accounts and account management, internet bank may also be used to pay the bills of cellular operators and Internet providers.

Internet Banking «Alfa-Click» – is very convenient, easy and simple way to control money in your Alfa-Bank accounts! It works 24 hours online, and you able to transfer money to any other Alba-Bank client instantly whenever you need as so as to any other bank. "Alpha-click" - a modern, comfortable and practical range of banking services and the possibility of electronic payments via the Internet with maximum speed and reliability.



<https://www.citibank.ru/>

ZAO Citibank, a fully owned subsidiary of Citigroup in Russia, was one of the first international banks to enter the Russian market in 1992. Today, Citi is one of the largest and best capitalized banks in the country. More than 3,000 institutional clients and over one million retail customers, including 500,000 credit card holders, are served by Citi's 3,000 employees in more than 50 branches located in 11 cities across Russia. Citibank's clients have access to the full spectrum of banking services and are provided with integrated and innovative financial solutions. Today Citibank operates in 3 CIS countries — Russia, Ukraine and Kazakhstan. In 2002, Citibank ZAO launched consumer banking operations by opening its first retail branch in Moscow. Citi now serves about 1 million retail customers across Russia.

Citi serves retail customers in Russia through more than 50 retail branches, over 550 ATMs, and online and telephone banking. Citi has acquired over a million customers across Russia, including 500,000 credit card holders. The majority of our customers turn to Citi for more than just one banking service: they choose Citi for our easy access accounts, convenient banking services, and advanced security and fraud protection. We attract, train and inspire the best people to deliver excellence in client service.

Citi currently offers the following products and services to consumers: credit cards with grace period; personal loans; investment products; multi-currency checking and savings accounts; payroll package for salaried employees; Citibank Online internet banking service; CitiPhone – telephone banking support service; an exclusive premium banking package Citigold; Citibank alerting service gives subscribed customers the ability to receive online information about their transactions and balances via email or SMS.

Citibank Online – is a remote banking service which allows you to securely manage your accounts your way, on your time, from wherever you are in the world, using a computer connected to the Internet.

Internet-banking functionality growth for physical persons resulted in increased remote operations. Share of internet physical person transactions tripled (from 8% to 25%) in 2010-2011. Banks cut their service expenses since more clients make transactions without operators assistance. The total volume of transactions over the Internet, according to Analytic Research Group, reached in 2011 in Russia the level of 420 billion rubles (in 2010 it amounted to 300 billion). On the question of *what events to the remote service market were most significant for the Russian financial market and the market for banking automation in 2010-2011* the representative of VTB Bank Dmitry Nazipov expressed his opinion:

“In the last two years after a serious economic crisis, reflected primarily in the financial sector's financial situation began to stabilize. Banks are trying to catch up on what has been lost in the improvement of processes and technologies for the period of crisis. A very effective application for remote servicing retail customers in the bank introduced of our group - VTB24. We came to a situation in which behavior is modified retail customers. Customers are moving away from traditional banking "windows" to the screens of terminals and smart phones. There are new tools and services for corporate clients. For example, VTB, has launched a product like cash-pooling. This is a remote channel, which connects the treasury of large companies and banks, and allows you to control the means of large companies, in banks. In my opinion, soon the majority of banking transactions, except, perhaps, of complex loan conditions that must be discussed at the level of top management of companies, will take place through the remote channels.”

The representative of Citibank mentioned :“The major trend in 2011 is the development of distance service. Almost all retail banks in 2010 reported a decline in the number of clients in their offices, and greater interaction with customers through distance channels. Remote service is strategic direction at Citibank and our ideology. We give the customer the freedom to choose: he communicates with the bank as he wants, and when he wants. The channels of remote service saves the customer time and money, because service via the phone and via the Internet can be done from anywhere in the world, the operation in most cases free or significantly cheaper. For us, it is important that the client knew, and knew how to use the services that are available to him. We are trying to convey to the customer as much information via the website and printed information materials. Of great

importance is the experience of bank employees and the ability to describe in detail the client, how and what to do.”

The Alfa bank carried out several studies, both among its own customers and customers of other banks. According to their results, online banking services in demand, but the apparent lack of awareness of the availability and capabilities of various services. From their side they are putting every effort to talk about the benefits of internet banking and explain that its use is safe and convenient for customers. Dmitry Kashtanov, the head of online banking at Alfa Bank, noted that by the end 2011 the number of users of the service in St. Petersburg increased approximately in two times. Most of the users of internet banking - young people between 21 and 30 years.

For this study is very important to consider the development of new Internet services in banks, since their presence is a good competitive advantage. Analysts, pointed that the development of e-banking services in Russia is quickly and successfully. The research conducted by Analytic Research Group, in May 2011 among the largest Russian banks, showed that a significant number of credit institutions are actively promoting remote maintenance services. Claim to be a significant market share in the short term are going to Gazprombank and Bank Renaissance. Also in Russia, there are banks with successful projects of remote services that have positioned them as a flagship for the bank. This, for example, Internet banking, "Alpha-click", active users of whom, according to Alfa-Bank, are more than 1 million people. At Citibank for more than 80% of the financial banking operations through a remote service channels - an average of 260 thousand on-line transactions per month.⁴³ Representatives of the three banks Citibank, Alfa bank and VTB Bank shared information about their plans to introduce new of additional services offered via the Internet in their banks.

Alfa bank: “We are planning to increase the list of products and services, information which can be accessed through the Internet bank, to expand the list of payees, including providers of public services, to improve communication with clients in the Internet bank. The important trends of the future will also improve the integration of channels, personalization services and an increase in sales of banking products through remote channels. We are constantly working to improve the security of the system

⁴³ Overview of the market for dictance banking for individuals. May, 2011

and interface improvements to make online banking as convenient and simple. During this year we plan to introduce several new services in the Internet banking and mobile bank.”

"Our customers appreciate the ease and convenience of remote delivery channels, and the popularity of these services is growing every day. I am sure that much of this impressive growth is due to the fact that we constantly improve the channels of remote services, offering our customers new services and opportunities ", - said head of the department of canals self-service in Alfa-Bank Vladimir Urbansky.”

VTB Bank : “We are planning to develop a new service for the Russian market such as remote video consultation and advice for our clients and staff of the bank. For complex and resource-intensive products, such as trade finance, foreign exchange controls, etc., We use a new tool - remote jobs with the possibility of video conferencing, collaborative work on the images of paper documents or banking applications”. “We will be able to provide our customers throughout Russia to carry out more complex and individual transactions, regardless of the location of the client or the presence in our local office of highly skilled professionals.” - said chief of information technology of the VTB bank Dmitry Nazipov.

According representative of Citibank Head of banking products and e-business department of Citibank's retail business Svyatoslav Ostrovsky : ”The main focus of development in Citibank has been and remains a distance banking services, portal of Citibank Online. This is a complete system for Internet banking, through which the client can independently perform the full range of banking operations: check balances, view e-statement, pay for communication services, to make utility payments, make transfers between your accounts and transfers to other banks in rubles and other currencies place, deposit, etc. The service is very popular and demanded by customers, it is through the Internet by the majority of remittances and foreign exchange transactions”. He also noticed about “*The Federal Law On the National Payment System* “ which intended to ensure the legal regulation of modern payment and settlement services, which have emerged as a result of the nation’s technological and informational development. The law was signed by the President of the Russian Federation and officially published on 30 June 2011.”

This law transfer network of payment terminals and electronic payments under bank regulation, which suggests a merger of two directions-traditional banking services and new

payment applications, which only began to appear. All this gives hope that banking will become more modern and mass payments - more secure, reliable and comfortable for people. Due to the reason this research also explores the development of internet banking in Russia by the adaptation of foreign experience it is necessary to know the opinion of interviews of this study about the differences between Russian Internet banking and foreign.

The representative of Alfa Bank provided information about the development of internet banking in different countries. He mentioned in the interview:

“One of the leaders have traditionally been considered in the Scandinavian countries - Finland and Sweden. A well-developed Internet banking and other European countries - Germany, Britain and Italy. In the U.S. and Europe, the number of users of Internet banking in the tens of millions in Russia barely reaches 1.5 million. Russian Internet banking is quite behind the European countries. He also noted that if the lag in the level of service and proposed service is not such significant, the gap on the number of online users is very significant.”

Representative of the City Bank as a representative of Alfa Bank said that the penetration of these services is much higher, with maximum values observed in the Nordic countries. This is due to the fact that the penetration of banking services among the population of Europe is already very high, almost every family is a customer of at least one bank. He added: “If we are talking about banks, the leaders of the Russian market of remote services, they are very close approaches to the international standards. In general, the Russian market is still pretty far behind the West in both qualitative and quantitative indicators, but I think the situation will quickly change for the better.”

According to the representative of VTB: “ the number of customers who use online banking has already exceeded one million people. Most of them are concentrated in a few large banks with a developed system of internet banking. “ He mentioned in the interview: “ In the coming years will be quite strong growth market, which will be explained by rising penetration of banking products among the population and increasing penetration of internet banking among bank customers.” He also noted that the development of Russians remote channels doesnt not lag behind international banking. He argued it is by the appearance of interesting and functional applications for the platform iOS, used in the iPhone and the iPad, which are now implementing in many Russians retail banks. According

to analysts AnalyticResearchGroup, in the medium term, the market distance banking services will be new and attractive offers for the users. In the longer term, e-banking system will form the basis for the securities and insurance, will include support services for systems of e-commerce, while sections of websites of banks with Internet banking will provide online services class «personal finance management»⁴⁴

Which areas of internet banking seems to be most promising for the next period of time was one of the most exciting topics of these interviews.

For the question about the developing Internet banking in the near future, the representative of Alfa Bank's Dmitry Kashtanov, said:

“In the near future, we will observe both qualitative and quantitative growth in this market. Qualitative growth will appear in the fact that more and more banks will introduce new services and bring to mind the current system in order to offer customers a complete, convenient and secure way to manage your account via the Internet. Quantitative growth is expressed in the confident growth of the number of customers who will actively use such services. The important trends of the future will increase channel integration, personalization services and an increase in sales of banking products through remote channels.” He also added: “Internet banking is a really important tool for improving business performance. In Alfa-Bank, it generates a workflow for a service which would have to open several more offices. In addition, due to the low cost of operation of Internet banking is profitable. However, it should be noted that since the customer service is free, then it can generate income only if a mass product”

According opinion of representative of VTB in retail banking the main focus will shift to the remote customer service and self-service devices. He said :”I think Russia will increasingly spread the new format of bank branches in the form of automated mini-offices, when in a small room, protected by electronic locks and surveillance cameras will be installed complex of equipment that allows to perform most banking transactions. So in the coming years we will see many interesting things: the banks rapidly transformed under the impact of information technology has become a key instrument of development and competition in this market.”

⁴⁴ Overview of the market for distance banking for individuals. May, 2011

He also mentioned: “Is possible to state that we come to a situation where customer service teller in the bank's offices are gradually replaced by a remote service channels and self-service devices. This trend is already underway in the regions: all the leading retail banks create regional network of self-service devices, and provide remote maintenance services throughout Russia.”

Representative of City Bank as well as the representative of VTB bank predicts the rapid development of the transition to the remote client service and self-service devices in the coming years. Banks will provide corporate customers with more variety of business services, which will be different from the classical banking.

He said: “Russian banks have recently demonstrated the active development of various e-banking channels such as Internet banking, ATMs, terminals, skype, etc. Translate all services in remote channels or only partially - each bank decides for himself. It should be remembered about the legislation that prevents a number of operations carried out on the Internet, and take into account the requirements of customers. Since there are entire customer segments that are very uncomfortable with their accounts via the Internet. At the same time be noted that every year the number of clients and their turnover in the online bank only grow. You can safely assume that in the near future, the majority of banking transactions will go through the remote services.”

Analysis and Discussion

The main purpose of this chapter is to present the authors analyze of the interviews and collected empirical data presented in the empirical chapter of the research in order to answer the main question of the research: Which internet banking services are used in Russia and how they contribute to customers' satisfaction? During the analysis stage it is planned to identify key areas innovation activities of foreign banks and to make a systematization of banking services abroad, to discuss the current status and level of the internet banking services in Russia and clarify the consequences and discuss the future perspectives concerning the development of the of internet banking in Russia,

Currently, providing of banking services via the Internet is an effective area of banking business. In the future it will provide customer service in the shortest possible time and without additional costs. The main reason for the development of the Russian banking system has been the constant growth of the Russian economy and banking market in Russia has even bigger potential. Banking Sector Development Strategy of Russian Federation up to 2015 relates to further development of the banking system and increase the competitiveness of the financial sector in Russia with the improvement of conducting banking methods activities through the use of advanced information technologies. Current research shows that the introduction of new innovative technology provides credit institutions to increase the efficiency of its work to expand the list of their services, to improve quality and to bring to the widest possible range of consumers.

Almost all major Russian banks offer their customers the opportunity to take advantage of e-banking services. Distant bank service today is the ability to ensure the competitiveness of the credit institution. Currently, distance service channels provide the maximum range of banking services, but the key issue of distant bank service operation is security of financial transactions. So it is possible to make a conclusion that the bank of the future is a bank with the unique set of technologies which let customers to perform financial transactions from anywhere, anytime and any day of the week, quickly, efficiently and safely.

Stable growth

It is not a surprise that now the Russian market of distance banking service is growing rapidly. Experts argue that over the past few years in this area there was a qualitative shift: the most forward-thinking banks have started using internet banking, mobile banking and other types of distant bank service in all aspects of their business.

Experts predict the growth of the Russian market of distant bank services in next years. Market growth will take place due to the spread of banking products among the population and the development of distant services.

Over the past few years, the ratio of Russian banks to electronic channels of service has changed considerably: credit institutions have been actively working in the field to extend the functionality of distant bank service, expand into new market segments, although, according to experts, an effective promotion of sales of these services are engaged in earnest only a few players. Nowadays more than a half of all Russian banks offers distant banking services for the clients. This system is evolving, expanding and providing a wide range of different operations through Internet banking. Currently, more than 90% of all Russian banks use the bank-client as a system of distant bank services. Among them are: VTB24, Alfa-Bank, Sberbank, Citi bank, and others major lending organizations. This system provides much wider functionality and requires no software installation on the client side, so it is possible to talk about the huge potential market for such systems.

Western experience

According to expert's opinion, penetration of e-banking services in developed countries exceeded to 90%. Online banking is one of the most popular and common type of distant bank services today in the world. In the U.S., almost all the major lending institutions are providing Internet banking services and the number of users is about 80 million people. In Europe, the number of users of Internet banking service is about 100 million people and it is expected to exceed up to 110 million by 2014. It is obvious that the transition of individuals into the system of e-banking becomes a global trend. A customer, who uses online banking, more active, and makes more operations online than in the bank office.

Mobile banking is the second most popular type of distant bank services today. This line of distant banking services is very promising and has a crucial quality - mobility. Therefore, credit institutions in the United States and Europe continue to invest in the development of mobile services, assuming that soon people (especially young ones) will consider the presence of mobile banking as a mandatory criterion for selecting a particular financial institution. By the way, the Western experience suggests that one of the main reasons that customers change their bank is the availability of Internet banking and mobile banking. Internet access from mobile phones will reduce the cost of financial transactions and allow new players to offer new financial services.

Russian practice

The number of users of Internet banking services in Russia exceeded to 9.4 million people, the penetration of Internet banking by the end 2011 exceeded 6%. The increase in penetration of Internet banking in 2011 was 2.4%, the number of users of Internet banking services increased by 3.4% . Lots of experts call 2011 a year of internet banking. In some lending institutions the number of Internet Banking users has increased several times. According to J'son & Partners, The total volume of transactions over the Internet in Russia in 2011 reached a level of 420 billion rubles (in 2010 it reached 300 billion).

Technologies of e-banking can be classify by types of information systems (software and hardware) used to carry out banking operations:

- PC-Banking (the "Client-Bank" and similar, that use direct modem connection). ;
- Internet banking - access to banking services from any computer via the Internet;
- Mobile and SMS-banking - access to banking services from a mobile phone via WAP, GPRS, SMS-system requests and notifications;
- Telephone banking and call-centers - access to banking services through automated voice systems management using operators telephone service;

All the major Russian banks offer enough differentiated set of services within the distant bank services and work in the field to extend the functionality of these systems. Thus, the share of Internet banking as one of the varieties of forms of distant bank services for individuals in the total volume of banking transactions is gradually increasing. In Russia today, the approximate number of users of Internet banking is 1.2-1.5 million, 90% of them are individuals.

In the majority of Russian banks mobile banking is limited to SMS notification about account transactions and does not allow any distance control. However, there are banks, for example: VTB 24, Alfa-Bank, Sberbank, whose customers have the opportunity to make various payments and transfer money from one account to another via mobile phone.

Many users of Internet banking concerned about the protecting their personal accounts from unauthorized access. At the same time, following the elementary rules of safety probability of cracking is low. In addition, to ensure maximum safety using tinning dynamic one-time passwords, digital signature and secure package access keys.

Experts point out, that functionality of E-banking, provided by the Russian financial institutions, are practically identical. Nowadays among the most common Internet banking services are the following:

First, checking balance on accounts and providing information on banking products (loans, deposits, etc.). Second, the application for registration of credit, opening deposit, obtaining credit cards, open checking accounts, etc. Thirdly, money transfers - both internal (between customer accounts and other accounts within the same bank) and external (to the accounts of other financial institutions). Finally, conversion rates, online consultation with qualified employees, payment of various services.

Credit institutions which developing Internet banking is pursuing the following objectives: to satisfy the growing demand from customers, reduce the proportion of cash withdrawals at ATMs and at the expense of increased balances on card accounts of customers finally get additional commission income. Availability of Internet banking is becoming an important factor in non-price competition. It is estimated that currently 15-25% of retail customers, the most active and affluent, choose a bank, estimating development zone of Internet banking, and the proportion of these customers will increase.

Market size and number of users of Internet banking will continue to grow: in two or three years the market will grow at about 3-3.5 times, and customers will be approximately 15-20% of card holders, experts predict. The company strives to grow housing payments, repayment of loans and services to buy railway and air tickets, tickets to the cinema, theater, etc. According to experts in the coming years a significant proportion of retail banking services will go into Internet banking, as well as operations that are now made through payment terminals.

Mobile banking

According to some experts smartphone as a tool of communication will dominate in many areas of human life in the near future, banking sector is no exception. Contactless payments based on NFC-technology (Near Field Communication) are allowing to pay for products and services and become a reality. In addition, the use of smartphones with installed application for mobile banking is a new and promising channel of the "Client - Bank". Any client of a credit institution can download a free "mobile bank" and is able to get 24 hours a day access to e-banking via iPhone or iPad.

Experts identify several trends in the development of mobile banking. The first is the extra-territoriality and the continuity of the system, which suggests the possibility for the client to manage accounts, regardless of its location and time of day. The second direction is accessibility: technological tools which allow to have an access to the system must be sufficiently widespread and affordable. Third is a multiversion of access channels: the banking system must be able to use different channels in any combination thereof. Fourth - the interactive service, which provides the possibility of financial self-service operations.

By using the mobile banking is essential to ensure the safety of operations. Compliance with the basic rules is the guarantor of security against unauthorized access. If the phone is lost or stolen, client should immediately report it to the bank and block the account.

Currently, the provision of electronic banking services on the Internet regulates by legislative acts of general, banking and IT law. The analysis of Russian normative and legal framework identified the problem of the current legislation regulating the relations arising in the implementation of banking services via the Internet. This indicates about the insufficient level of development of normative - legal framework.

Internet banking is an effective way to manage resource not only for banks clients but also for the banks, it is more convenient and profitable to communicate with customers via the Internet. First of all, bank can save on expensive offices and clerks, and thus reduce the fees, it is extremely important in the highly competitive environment. Also, it allows banks to respond to the market fluctuations and to change the structure of the bank.

We should note that Internet banking is not just a innovative technology, but the whole system of interaction with customers in the mode of on-line. Internet banking is a complex

and complicated phenomenon, for its successful implementing the banks should develop the strategic goals and plans. Due to the fact that Internet banking is a comprehensive and complex process the banks should develop strategic goals and plans for its successful implementation. The authors of this study provided a possible structure of such a plan.

This plan is presented below:

The strategic plan of possible innovative activities for commercial bank:

1. Strategy

Analytical evaluation of the advanced experience of foreign banks in different countries and forecast of their innovation development: the definition of priority directions of development of banking technology, technology management.

2. The main objective and the results

The main objective – is to achieve the optimal level of competitiveness on the basis of a consistent set of technological, economic and administrative measures

The specific results

Establishment in banks new banking systems, a new generation of working in a mode of innovation management. The aim is to increase the flexibility and adaptability to the market

3. The main strategic directions

• **Technological innovations**

- Automation of banking processes, the transition to the new computer technology self-service, remote service, use of the Internet in the "bank-client" virtual banking and financial technologies
- Development and implementation of new banking products (services) based on new technologies
- Integrated use of new information and communication technologies for e-marketing

- Improving the forms and methods of management, including continual developing of innovation

- Changes to the qualification of employees: product manager, an expert on transactions and counseling, counselors (highly qualified individual counseling clients)

4. Tactical particular implementation of strategic directions

Consideration of the main features of the Russian banking sector

5. Modification of management structures

- Structural and functional changes in view of multi-channel customer service, a combination of new and traditional technologies and tools
- Optimization of the banking network segmentation, changes in the branches and branch network
- Organization of the center of innovation

Currently there are several problems associated with the introduction of Internet banking: poor implementation of the law on electronic signature, the low level of training specialist, lack of confidence in the banking system in addition, lack of transactions' security over the Internet, a low level of people's computerization and Internet access equipment, the deplorable state of telecommunications and more.

Possibility of distance management of accounts is a total need nowadays. The bank improves technologies and optimizes business processes so the clients can handle their operations faster and more efficiently. Electronic banking system enables clients to be in touch with the bank at all times (virtual bank can work 24 hour a day).

A wide range of operations can be handled by using electronic banking system right from the office: there is no need to send hard copies of original documents to the bank for settlement services, there is a possibility to manage bank account, place money into deposit accounts, create and edit electronic documents, browse archives of electronic documents and statements for any period and use standard reference manuals.

Prospects for the development of internet banking in Russia is enormous, both from a technological and economic point of view. We can assume that in the near future some of Internet banking will grow into a single virtual space of financial services and products. Internet banking is becoming a priority the development of a growing number of banks as a new stage in bringing its customer base, optimizing cost and receipt of additional revenue.

To summarize, we can say that internet banking - one of the best examples of new technology that allows banking to transfer on a new level. After all, it is not just a new form of customer service, but this is a completely different approach to banking, much faster, safer, more convenient and safer than ever before. After the collected data was analyzed it could be concluded that the usage of Internet technologies for the services of the banks has advantages for the clients of the banks as well as for the banks themselves. Some of the advantages are listed below. Internet banking offers multiple advantages to banks, as well as individual clients and corporate clients.

Advantages for the bank:

- Improved market image — perceived as leaders in new technologies implementation
- Reduced transaction costs
- Better and quicker response to the market evolution
- Increased market penetration — the online banking service can be accessed all over the world
- The use of the Internet site to advertise/sell new financial products

Advantages for the individual client :

- Reduced costs in accessing and using the banking services
- Increased comfort and time-saving — transactions can be made 24 hours a day, without requiring physical interaction with the bank
- Speed of transaction
- Better administration of funds — the history of transaction is registered on digital
- Support and can be analysed before a new transaction is initiated

Advantages for the institutional client:

- Reduced costs in accessing and using the banking services
- Quick and continuous access to information
- Increased comfort and time-saving — transactions can be made 24 hours a day, without requiring physical interaction with the bank
- Speed of transaction
- Better administration of funds — the history of transaction is registered on digital support and can be analysed before a new transaction is initiated

Conclusions

The purpose of this thesis was to attempt identify and analysis of current solutions in the sphere of innovative payment systems with the goal of define the influence of new technologies on the competitive position of commercial banks and if it could serve as the competitive advantage for the commercial bank. This paper focuses on the special significance and impact of Internet technologies; therefore the routes of development as well as main financial services provided by banks of Russia were analyzed. Today they marked the transition to an information society and gave an impulse for global economical processes. Digital technologies have revolutionized the financial world. Changing innovation environment has affected the banking sector. Therefore this paper attempts to consider the development of innovative banks in terms of the impact of this technology as the core of modern information revolution.

In this research was obtained the following results:

- ✓ The phenomenon of banks innovation was analyzed, and then the study of its characteristics abroad was conducted.
- ✓ Particularly banking innovations related to the Information Technology were identified and the main trends of the banking sector in the world economy were found.
- ✓ The experience of innovation in foreign banks, especially banks in the most developed countries, which are the world leaders for innovation was studied.
- ✓ The definition and classification of distant banking and its services were given
- ✓ The main legal aspects of regulations of internet technologies in banking sphere were listed.
- ✓ The modern state of Russia's banking system was characterized, and the brief overview of Russia's payment system and the stages of its development were given.
- ✓ During the research of the banks chosen for the case study and after the analysis of the interviews with the specialists from these banks it was proven that the modern

banking system Russia needs to "import" the experience of Western banks in the area of Internet banking to compete in the global and local banking market.

- ✓ The main tasks of Internet banking in Russian banks that should be helpful to gain the stronger market position were identified.

The literature review showed that recent decades are characterized by the massive introduction of new media and communications, computer technology, creating a global information network. Banking also doesn't remain on the sidelines. The following innovative changes in the global banking practice were identified:

- **General changes in the structure and appearance of the bank as a whole:** "multi activity" with a combination of traditional and new technologies and tools, self-service, remote maintenance, call centers, fully automated bank branches. Complex remote banking has become an essential attribute of a modern commercial bank abroad.

Among other findings from the literature review it could be listed that for the client Internet technology is advantageous, especially in terms of convenience, efficiency and low cost services. It also allows the full range of transactions on the account (except, of course, cash transactions) at any time.

For the bank this technology is advantageous, because of these services:

- to a minimum reduced costs of bank-related transactions;
 - increase of the rate of return and overall efficiency;
 - an opportunity to attract a large number of clients, not tied to a geographic location of the bank;
 - creation of such a system provides the advantage over the competition.
-
- **Virtual banking and financial technology.**
Integrated use of new information and communication technologies in an environment where the user selects the form of service.
 - **New banking products (services) based on new technologies.** New self-servicemachines (mono-and multi-functional, informational) In connection with the transfer

of the center of gravity for remote maintenance functions of the existing retail network and gradually tapering branches resemble more specialized service centers.

During the empirical phase of the study the research a large amount of data was processed. According to this, it can be summarized and enlightened into the following list of conclusions:

1. Sufficiently well defined some characteristics of the banking business, which is likely to become dominant in the future.
 - The banking industry is now developing on two grounds: traditional banks and virtual banks (with a predominance of the former).
 - Information technology can expand and improve remote banking services.
 - Advances in the development of Internet technologies have led to the formation of a global electronic environment for banking.
2. In recent years, Russia's banking system is developing intensively. Credit institutions have to seek maximum transparency and openness to customers. Introduced innovative business models, new banking technologies (client-bank money transfer, debit and credit cards, etc.), various types of loans (consumer, mortgage, etc.). Nevertheless, all indicators of the banking system in Russia are significantly behind the developed countries. The evolution of the banking system in the direction of the distance model of services due to a number of objective characteristics of the economic and social environment and, above all, changes in lifestyle. Technologies that are approved and widely used by foreign banks abroad for the Russian market can also be innovative.
3. Providing customers with remote services has become a mandatory service in the banking business. Internet banking allows you to manage funds in the accounts and online, regardless of the location of the account holder, in addition, this service offers the customer information and investment opportunities and to block the account.
4. Using the latest computer technology brings large profits to banks and help to win the competition and get a stronger position on the market . Any automated banking system is a complex of hardware-software system consisting of many interconnected modules. Quite obvious role of network technologies in such systems. In turn, the proper construction of the network will provide a permanent increase in the quality of banking services that will benefit, ultimately, both the Bank and the client.

5. The major direction of customer service using the latest electronic technology is the representation of electronic services in the stores. Most of the operations carried out by means of plastic cards that have come to the forefront in the organization of payments in Russia, forcing the checks and checkbooks. Increasing use of information technology in the creation, processing, transmission and storage of documents required in certain cases, confidentiality of their contents, to ensure completeness and accuracy.
6. In foreign countries there is an increasing popularity of Internet banking. At this unconventional form of banking services appeared stable purchasing power. In the future remote banking services based on Internet technologies, without a doubt will become one of the main forms of retail banking services. It will provide integration of services based on the use of ATMs / credit card payments and services provided by banks in a single system. It is assumed that as a result of innovations productivity will increase, overhead costs of companies will decrease and at the same time their revenue and profitability will drastically increase.

In Russia, the creation of innovative banking system is just beginning. In order to be successful in terms of innovative types of development, Russia needs to determine priorities for the development of banking techniques, technology, management, based on the assessment experience of leading international banks and prediction of their innovative development. Based on that analysis estimates the banks need to make strategic plans of innovation. The main objective - to achieve an optimal level of competitiveness on the basis of a consistent set of technological, economic and management activities. Banks need constant introduction of new and better technologies, products and organizational structures. Banking Sector Development Strategy of the Russian Federation until the period of 2015 largely relates prospects of the banking system and increase the competitiveness of the Russian financial sector as a whole with improved ways to conduct banking activities through the use of advanced information technology. As practice shows, the widespread introduction of new technologies provides credit institutions to significantly increase their efficiency, expand the range of its services and improve their quality and to inform the widest possible range of consumers. The top-management of the banks in case study sees it strategically important to use new technologies in the banking sphere. For successful participation in the competition, according to the findings from interviews it is necessary to set the following objectives:

- increase the flexibility and adaptability to the market;
- automate banking processes, move to new computer technology self-service, remote service, use of the Internet in the "bank-client", virtual banking and financial technology;
- develop and introduce new banking products (services) based on new technologies;
- complex to use new information and communication technologies for e-marketing;
- innovate in the forms and methods of governance, changes in skills of workers.

Based on our research it can be concluded that the use of electronic innovations is the primary goal of many Russian banks in order to get the winning position on the market and to get the competitive advantage against other banks. Also it should be noted that to ensure the competitiveness of the Russian financial sector, to gain an advantage over other market participants, the Russian banks need to keep pace with technological advances and conduct continuous on-line service in a timely manner to develop business processes and implement innovative banking technologies. Currently, the Russian banking sector could develop much faster, taking over foreign experience and innovation, and proven effective. In the future the situation may change and will need to go to the path of innovative development, to develop and implement their own banking technologies.

However, it is necessary to state the study has some limitations, as generalization from the research based on the several case studies should be made very carefully, since every case study has very individual features and what is applicable in one situation and market may not be applicable in other case. Further research in the area and on the examples of other banks should be conducted in order to prove the results of this study. Furthermore, this paper may be applicable for the future researches and studies in the field of banking, innovation, new Internet technologies and payment systems, competitive advantages and positioning of the commercial banks. The paper shows a wide overview of the current literature in the listed topics and can be used as a background for more deep research. This work may also be applicable for the managers of banks who aim to form the strategic plan of usage of new technologies in banks in order to win a stronger position on the market.

References

Literature

- Afuah A. (1998). *'Innovation Management'*. Oxford University Press. New York. USA.
- Babayan. M. (2005), "Differences in the competitive market for banking services from the competition in other financial markets" -Money and Credit.. - № 7.-p.12.
- Bushueva, L. M. Volkova, E. Pavlov (2004), "Marketing in Russia and abroad", p-117.
- Bushueva. L.(2004) " Using of the Internet and Internet - services in the practice of marketing activities" p.-34 .
- Chaix L., Torre D. (2010), "Different models for mobile payments"
- Comte A. (1853/1971) "The positive philosophy". In: Thompson K. and Tunstall J. (Eds) Sociological Perspectives. Harmondworth, Penguin
- Emory, William C .(1980), *Business Research Methods*, Irwin,
- Gilbert J. (2008) *The History of Banking in America*, BiblioBazaar, LLC
- Golden-Biddle, Karen, and Karen Locke (1993) "Appealing work: An investigation of how ethnographic texts convince".
- Ivangok. C. (2004), " The development of payment systems, allowing for the regional economy", № 3.-P.50-54.
- Ivanova N. (2002)," National innovation system". p.28.
- Lawson W. (2007), "The History of Banking: With A Comprehensive Account of the Origin".
- Malerba, E., Orsenigo, L., (1997), Technological Regimes and Sectorial Patterns of Innovative Activities", *Industrial and Corporate Change*, , pp. 83-117
- Mark Easterby-Smith, (2008). "Management Research, Second Edition An Introduction", Mark Easterby-Smith.
- Muravyeva A.(2008) "Innovation in banks: world experience and Russian practice ".
- Peronkevich H. (1999), "Banks of XXI century- Banking". - № 10. - p. 32
- Peter Drucker (2006), "Innovation and Entrepreneurship".
- Pirogov C.(2009) "Classification of E-commerce ".
- Porter, E.,(1990) The Competitive Advantage of Nations, Free press, Usa

- Scheglakova Anna (2007), *“Development and use of Internet banking products and evaluate their effectiveness”*
- Schmookler, J. (1966). *Invention and Economic Growth*, Harvard University Press
- Schumpeter, J.A. (1950), *“Capitalism, Socialism and Democracy”*, Harper, New York.
- Schumpeter, J.A.,(1934) *“Theory of Economic Development”*, Harper, New York.
- Streletc I. (2010) "The problem of information globalization in the twentieth-twenty-first century."
- Tedeev A. (2008) *“Electronic Banking and Internet Banking: regulation and taxation”*.
- Thomas, R. (2003). *“A general inductive approach for qualitative data analysis”*.
- Titorenko G.(2002) *“The automated information technology in the economy”*, chapter 7.
- Varaiya P.(2000),” *High-performance communication networks”*, Morgan Kaufmann
- Zhukov T. (2006) *“Banks and banking operations”*. Moscow: Banking and Stock Exchange, 200 p.

Articles:

- Analytic Research Group (2011) *“Internet banking. Distance banking services for individuals, September, 2011”*
- Banking technolog (1999). *“Call-center for the bank: fashion or necessity? “/- № 4. -P. 15-16.*
- Banking technology. *The bank, which is always with you“/ (2003). - № 3. - P. 59-60.*
- Barney, Jay B. (2002). *Gaining and Sustaining Competitive Advantage*, 2nd ed. Reading, Mass.: Addison-Wesley
- Brewerton, P. M. (2001),” *Organizational Research Methods: A Guide for Students and Researchers”*. Sage Publications Ltd, London, GBR.
- Collis, J., & Hussey, R. (2003). *Business Research. A practical guide for undergraduate and postgraduate students* (2nd ed.).
- Cresswell, J.W. (1998). *“Qualitative Inquiry and research Design :Choosing Among Five Traditions”*. London, Sage Publications.

- Creswell, J. W. & Miller, D. L. (2000) *Determining validity in qualitative inquiry. Theory into Practice*, 39(3), 124-131.
- Daniel, E. (1999), “*Provision of electronic banking in the UK and Ireland*,” *International Journal of Bank Marketing*, vol. 17 ,2, pp. 72–82. “*The Dynamo of E-Banking*”, *Business Week Online*, April 16, 2001.
- Denscombe, M. (2002).” *Ground Rules for Good Research: a 10 points guide for social researches*”. Philadelphia, USA
- Denzin, N. K. (1978) *The research act: A theoretical introduction to sociological methods*. New York: McGraw-Hill.
- Diaconu Mihaela, (2011). “ *Technological Innovation: Concept, Process, Typology and Implications in the Economy*” ,*Theoretical and Applied Economics Volume XVIII* (2011), No. 10(563), pp. 127-144
- Doerig, Dr. Hans-Ulrich (1999), “*Universal bank - the bank of the future. Financial Strategy at the turn of the century*”, *Uniyersalbank - Banktypus der Zukunft / Dr. Hans-Ulrich Doerig.. P-384*
- Egorova A.(2004),” *Internet Bank in the global Banking technology.*” - 2004. - № 9; *e-Finance.* - 2004. - № 451.
- Federal Agency for Press and Mass Communication(2011), “*Internet in Russia status and trends and prospects*”
- Gerasimenko V.(1999),” *Economic Theory*” // *Bulletin of Moscow University. Ser. 6: The economy.* - № 6. - p. 32.
- Golafshani, N. (2003) *Understanding Reliability and Validity in Qualitative Research*, *The Qualitative Report Volume 8 Number 4 December 2003*.
- Gummesson (2000) “*Qualitative Methods in Management Research (2nd ed.)*” *Sage Publications*.
- Guseynova Y.,(2009) *Purchasing strategy and collaboration with suppliers(case study :JscLebedyansky in Russia)*. Thesis(M.sc), University of Nordland.
- Healy, M., & Perry, C. (2000). *Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm*, *Qualitative Market Research*, 3(3).
- Hominich I.(1998), “*The innovative strategy of the bank . Banking Services.*” № 3. - p. 16-21; № 4. - p. 23-30.

- J. Mayer. (1998), Journal of *Financial Economics*. 1998. Vol. 47. No. 3.
- Jacobsen, D. I. (2000).” *Hvordan gjennomføre undersøkelser?*” Høyskoleforlaget
- Journal of Financial Services Marketing (2002) Vol. 6, 4, 362–378 # Henry Stewart Publications 1363-0539 .
- Kay, John. (1993). *Foundations of Corporate Success*. Oxford University Press
- Keith F. Punch (2005). “*Introduction to Social Research–Quantitative & Qualitative Approaches*”. London: Sage, 320 pages,
- Koshelyev V. (2009), “*Modern strategies of client servicing virtualization with regard to banking sector of Ukraine, West Pomeranian business school*”, Szczecin
- Krukov G. (2008), “*How to build a bank call-center*“, Banking technology, № 4. - p. 30-31
- Kuzmenko (2002), “*Internet banking: the change of orientation or a second wind?*”, *BusinessOnline*” - 2002. - № 10.
- Kvale, S. (1996) *Interviews An Introduction to Qualitative Research Interviewing*, Sage Publications.
- Law & Regulation of Electronic Finance & Internet Banking Centre for Financial and Management Studies, SOAS, University of London First Edition 2007, 2010
- M. Sadalsky (2005), “*Technologies in bank - the path to success*“ // Money and Credit. - 2005, - № 6. - p.29
- Mahmood Rosli, Al-Swidi Abdullah Kaid (2011) Enhancing A Bank’s Competitive Advantage through the Integration of TQM Practices, Entrepreneurial Orientation (EO), and Organizational Culture- European Journal of Social Sciences – Volume 20, Number 2
- Marshall, C., Rossman, B.G. (1999), “*Designing Qualitative Research*”. Third edition. Sage Publications, UK.
- Minervin I. (1997), “*Strategy and prospects of technological change in banking*” . Business and banks. - 1997. - № 26. - June. - C. 7.
- Mols, N. (1998), “*The Behavioral Consequences of PC banking*,” International Journal of Bank Marketing, vol. 16, 5, pp. 195–201.
- Myers, M.D. (2009) “ *Qualitative Research in Business & Management*”. Sage Publications, London.

- Nikolaev A. (2001) “*Innovation and innovative culture: problems of theory and practical control*”.- № 5. – p. 42.
- O’Connell, Brian (2000), “Internet Cash Management Takes Off,” Bank Technology News, vol. 13, no.1, January.
- Olga Luštšik (2004), “Can e-banking services be profitable?”, Tartu.
- Ortiz, Fernanda (2002) “*The age of the click: Internet Banking.*” Economic News. Journal No. 270. Volume XVI. November, 2002.
- Patton, M. Q. (2002). *Qualitative evaluation and research methods* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Pavitt, K.(1987),”*The Objectives of Technology Policy, Science and Public Policy*” , pp. 182-188
- Popova E.I. (2010) ,”*Formation of payment systems in the information economy,*” Bulletin of the Chelyabinsk State University. 2010. № 14 (195). Economy. Vol. 27. p. 31-35.
- Priscilla Alderson (1995), “*Ethics review of social research*”, London: Barnardo's
- Rahman M. (2009) *E-Banking in Bangladesh: Some Policy Implications*
- Reznichenko, (2010). “Opportunities and challenges in using biogas technology in Russia”
- Rumelt Richard P. (2003) What in the World is Competitive Advantage? - The Anderson School at UCLA, Policy Working Paper 2003-105 , August 5, 2003
- Safeena R., Date H. (2010) *Customer Perspectives on E-business Value: Case Study on Internet Banking.* Journal of Internet Banking and Commerce, 2010, vol. 15, no.1
- Sathye, M. (1999) , “*Adoption of Internet Banking by Australian Consumers: An Empirical Investigation,*” International Journal of Bank Marketing, vol. 17, 7, 1999, pp. 324–334.
- Saunders, M. (1994) *Strategic Purchasing and Supply Chain Management.* Pitman Publishing
- Saunders, M., Lewis. P., Thornhill,A. (2000) *Research Methods for Business Students (2nd ed.)* Person Education, Harlow
- Seitz J., Electronic Banking (2001), “*An Overview, Electronic banking: the ultimate guide to business and technology of online banking,*” Birkhäuser,

- Semenov A. (2002),” *Banks in the Internet age*”, based on review of The Boston Consulting Group. Banking technology. 2002. - № 5. - p. 32-34.
- Semikova P.(2008) “ *Banking innovation and new banking product : banking technology*”.
- Shipton, West, Dawson, Birdi, & Patterson (2006) “*Organizational practice HRM practice & innovation*”.
- Siam A. Z. (2006),” *Role of the Electronic Banking Services on the Profits of Jordanian Banks*”. American Journal of Applied Sciences 3 (9): 1999-2004, 2006
- Sparks D.(2005) *Paying with plastic: the digital revolution in buying and borrowing*, MIT Press,
- Statement of the Government of Russian Federation № 1472p-P13, the Bank of Russia on 05.04.2011 № 01-001/1280 'On Banking Sector Development Strategy of the Russian Federation until 2015 "
- Terashima N. (2001), “*Intelligent communication systems*” Academic Press.
- Trochim, W. (1999) *The Research Methods Knowledge Base, 2nd Edition*. Cornell Custom Publishing, Cornell University, Ithaca, New York.
- Trochim, W., Donnelly, J. (2006) *The Research Methods Knowledge Base, 3rd Edition*, Atomic Dog.
- Turetskaya A. (1999), *Virtual Bank: A Strategy for Real Business* // Expert. - 1999. - № 47. Spec. No. - 1999. - № 8. -p. 10-13.
- Vestnik ARB (1998): Appendix "*Banking: Foreign Experience: Analytical and abstract material.*" - 1998. - № 4. – p.p. 55-56;
- Vikulov V. (2001) “*Innovative activities of credit institutions : Management in Russia and abroad*”. - № 1- p. 31
- Volodin, (1998), “On elements of the strategy to develop new banking products (Introduction to the problem)” .Banking. - 1998. - № 10. - Pp. 18-19
- Yin, R.K. (1994) “*Case Study Research Design and Methods (3rd edition)*”. Thousand Oaks, CA: Sage.

Internet sources:

- Advantages of Ebanking | eHow.com http://www.ehow.com/list_6510971_advantages_ebanking.html#ixzz1ueXeIet1
- Advantages of Ebanking downloaded from:
eHow.com http://www.ehow.com/list_6510971_advantages-ebanking.html#ixzz1ueXeIet1
<http://www.int-bank.ru/analyst>
- Analysis and Statistics, Payment System of Russia in 2008, Payment and Settlement Systems No. 20, This bulletin is available on the Bank of Russia official website at http://www.cbr.ru/eng/analytics/prs20_e.pdf
- Analysis and Statistics, Payment System of Russia in 2008, Payment and Settlement Systems No. 22, This bulletin is available on the Bank of Russia official website at <http://www.cbr.ru>
- Artemov S. (2010) *The Grows of Speed in the Internet*. Kommersant, Rostov, № 202
Downloaded on 25.04.2012 downloaded from:
<http://www.kommersant.ru/doc.aspx?DocsID=1532131>
- Burdinskiy A. (2000) "Which internet banking we need?" / / E-Finance. - 2001. - 1 February, Banking in Moscow. - 2000. - № 8. - November 30; www.e-finance.ru.
- CPSS – Red Book - Payment systems in Russia (2011), Prepared by the Bank of Russia and the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries , September 2011, This publication is available on the BIS website (www.bis.org).
- Directive 1999/93/EC of the European Parliament and of the Council of Europe, <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0093:EN:HTML>, (last access: 12.05.2012)
- Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0031:en:NOT>, (last access: 08.05.2012)
- Ernst and Young research, Technology in Banking [http://www.ey.com/Publication/vwLUAssets/Technology_in_Banking_-_Insight_and_Foresight_IDRBT_EY_REPORT/\\$FILE/Technology-in-Banking-Insight-and-Foresight-IDRBT-EY-REPORT.pdf](http://www.ey.com/Publication/vwLUAssets/Technology_in_Banking_-_Insight_and_Foresight_IDRBT_EY_REPORT/$FILE/Technology-in-Banking-Insight-and-Foresight-IDRBT-EY-REPORT.pdf)

- European Digital Agenda http://ec.europa.eu/information_society/digital-agenda/scoreboard/docs/pillar/usage_content.pdf
- Federal Law of Russian Federation “On information, information technologies and protection of information”, [www.rg.ru/ /informacia-dok.html](http://www.rg.ru/informacia-dok.html), (last access: 27.04.2012)
- Fitch, IBCA, <http://www.fitchratings.com/jsp/creditdesk/ProductsAndServices.faces;jsessionid=4B4F183198DF7BDE249F6067E31138FB?context=2&detail=130/products/frame.html>
- Horowitz E. (1999) The ascent of content, The Future of the Electronic Marketplace, Downloaded on 12.03.2012 from: <http://www.bangladesh-bank.org/pub/quarterly/bbquarterly/bbquarterly/policynotes.pdf>
- <http://bankir.ru>, Internet Banking - a new form of the old service 06/04/2012
- <http://www.alfabank.ru/>
- <http://www.independent.co.uk/life-style/gadgets-and-tech/germany-russia-have-the-largest-internet-audiences-in-europe-2279979.html>
- <http://www.scribd.com/doc/57843581/The-Internet-in-Russia-factsheet-via-ModernRussia-com>
- <http://www.vtb24.ru/personal/services/remote/Pages/moscow.aspx>
- <https://www.citibank.ru/RUGCB/JSO/signon/DisplayUsernameSignon.do>
- Internet banking in Russia: from reduced expenditures to revenues, downloaded 13.04.2012 from: http://raexpert.org/researches/banks/internet_banking/
- Jiaqin Yang, Mike Whitefield & Rina Bhanot. “E-Banking in Rural Area - Recent Trend and Development: A Case Study” http://www.iima.org/CIIMA/14%205.4_Yang_63-72-1.pdf
- Karen Furst, William W. Lang, and Daniel E. Nolle, Internet Banking: Developments and Prospects <http://199.83.40.54/publications/publications-by-type/economics-working-papers/2008-2000/wp2000-9.pdf>
- O'Connell, M. (2000), The Future of Banking, California Job Journal, Available at: http://www.jobjournal.com/article_full_text.asp?artid=143.
- Overview of the market for distance banking for individuals. May, 2011 to Forrester research downloaded 06.03.2012 from: <http://www.forrester.com/European+Online+Banking+Users+Employ+Few+Features/fulltext/-/E-RES54949>

- Paliu-Popa, Lucia (2008), Economy Globalization and Internationalization of Business University Constantin Brancusi of Targu Jiu Downloaded on 01.02.2012 http://mpira.ub.uni-muenchen.de/18568/1/MPRA_paper_18568.pdf
- Reality_of_virtual_banks (2010) downloaded from: http://www.ifs.ru/upload/reality_of_virtual_banks.pdf
- Soy, S.K. (1997), *The Case Study as a Research Method*, Unpublished paper, University of Texas at Austin. – available at <http://www.ischool.utexas.edu/~ssoy/usesusers/l391d1b.htm>
- Status Report on European Telework 1997. European Commission Report, 1997 <http://www.eto.org.uk/twork/tw97eto/> downloaded from: <http://www.cnews.ru/telecom2004/part11/audience.shtml>
- The Civil Code of Russian Federation, http://www.consultant.ru/popular/gkrf1/5_59.html , (last access: 03.05.2012)
- Trubovich E. (2009) *Bank System of Russia. Central Bank and Commercial Banks*. Journal Zanimaem.ru Downloaded on 25.11.2010 <http://www.zanimaem.ru/articles/48/77>
- UNCITRAL Model Law on Electronic Commerce with Guide to Enactment, www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html, (last access: 12.05.2012)
- Vanin A. (2005) “*The development of Internet banking “I / Computer-to-detail. - 2005. - № 2*, downloaded from :<http://www.bizcom.ru/archive/2004/jan-feb.html>
- Vikulov V. S.(2001) “*Innovative activities of credit institutions “* Management in Russia and abroad. downloaded from: <http://www.dis.ru/manag>.
- World Bank Development Indicators, downloaded from: http://www.google.com/publicdata/explore?ds=wb_wdi&met=it_net_user&idim=country:RUS&dl=en&hl=en&q=internet+penetration+in+rus sia#!ctype=l&strail=false&bcs=d&nselm=h&met_y=it_net_user&scale_y=lin&ind_y=false&rdim=country&idim=country:RUS&ifdim=country&hl=en_US&dl=en&ind=false
- Yandex statistics of the Internet spread, downloaded from: <http://siberianlight.net/russian-internet-market/>

Additional materials

- Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce)
 - Directive 1999/93/EC of the European Parliament and of the Council of Europe from 13.12.1999 on a Community framework for electronic signatures
 - The Federal Law of 10 July 2002 N 86-FZ "The Central Bank of Russian Federation (Bank of Russia)".
 - Federal Law № 395-1 of 02.12.1990 year. "Banks and Banking Activities"
 - The Federal Law of 10 July 2002 N 86-FZ "The Central Bank of Russian Federation (Bank of Russia
 - CPSS – Red Book – 2011 Payment, clearing and settlement systems in Russia
 - OECD (2002) Organization for Economic Co-operation and Development, The future of money, OECD Publishing
 - OECD information technology outlook (2000): *ICTs, E-commerce and the information economy*, OECD Publishing
 - Concept of Innovation Policy of the Russian Federation for 1998 - 2000 years. RF Government Resolution of 24.07.98, № 832.OCDE (2005). *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*
 - OCDE (2002). *Proposed Standard Practice for Surveys on Research and Experimental Development*
- **Sources of statistical information, news and analytics about the Internet :**
- Forrester Research (www.forrester.com), Cyber Atlas (cyberatlas.internet.com), AdKnowledge (www.adknowledge.com), Monitoring.Ru (www.monitoring.ru) and Internet Advertising Resource Guide (www.admedia.org). VeriSign analysis (<http://www.investorguide.com>), Yandex (www.yandex.com), Fitch IBCA (<http://www.fitchratings.com>)

Appendix 1

Interview Guide 1. The preliminary set of questions for the respondent of Citibank

1. What events of the remote service market were most significant for the Russian financial market and the market for banking automation in 2010-2011
2. How much attention Citibank pays for developing of distance banking services?
3. What other channels of remote service Citibank will develop next years?
4. How to ensure the success of distance banking services?
5. What are the main features of working with clients with implementing the concept of distance banking services?
6. How the role of banking offices is changing with the development of remote banking channels?
7. Are the e-banking and banking self-service a real alternative to the traditional banks offices .
8. Whether these channels with time to replace traditional banks offices ?
9. Can you explain what is the benefits of using internet banking?
10. Which areas of internet banking seems to be most promising for the next period of time

Appendix 2

Interview Guide 2. The preliminary set of questions for the respondent of VTB Bank

11. What events of the remote service market were most significant for the Russian financial market and the market for banking automation in 2010-2011
12. In your opinion, how quickly the banking business in Russia responds to new technologies?
13. What areas **VTB Bank** will develop in the next year?
14. What do you think about new technologies or solutions that have emerged in the banking market in recent years?
15. What conditions will dictate the demand for these or other technologies?
16. How much different Russian Internet banking from their samples in Western banks? In terms of functionality, the list of services, *convenience, security, technical support*?
17. What are the advantages of internet banking in comparison with the ordinary process of customer service? And is there a drawbacks?
18. How the development of internet banking optimizes the cost?
19. How you can explain the distrust of Russian customers to e-banking: *is there a risk and guarantees*?
20. In what areas will develop Internet banking in the near future?

Appendix 3

Interview Guide 3. The preliminary set of questions for the respondent of Alfa Bank

21. What events of the remote service market were most significant for the Russian financial market and the market for banking automation in 2010-2011
22. What type of remote services (Internet banking, bank-client, mobile banking, etc.) the most popular today? Why?
23. Do you conduct research about the demand and quadrupeds of Internet banking services?
24. In your opinion, how the Russian internet banking behind the West? In which countries internet banking is most developed?
25. What new and additional services available through the Internet, plans to introduce Alfa-Bank?
26. Could you tell about the economic side of the Internet banking service for the bank: cost of implementation, the expected performance? How the introduction of the service affects on the work of banks branches?
27. Today, Internet banking is more marketing step or it is actually increases the income of the bank?
28. What percentage of Internet banking services in Russia and in Europe?
29. Which banks: large federal with a strong network or a small regional - will be in a better position in the development of Internet banking?
30. Currently Alfa Bank offers a wide range of Internet banking. What are the prospects for further development of Internet banking services? What limits the development of: legislation, inadequate technical systems, security systems?

Appendix 4

Several CEO were interviewed during the study, their names and positions are presented in the table below:

Name of interviews	Position in Company	Company
Vilen Timiryazev	Director of the processing center	Alfa-Bank
Vladimir Urbansky	Head of the department of canals self-service	Alfa-Bank
Dmitry Kashtanov	Head of Internet-banking in Alfa-Bank	Alfa-Bank
Dmitry Nazipov	Chief of Information Technology	VTB Bank
Svyatoslav Ostrovsky	Head of banking products and e-business department	Citibank