

IBANK -THE FUTURE OF THE ONLINE BANKING¹

Stevcho Dimeski PhD

Stopanska banka AD Skopje, International Slavic University G.R Derzhavin,
Sveti Nikole, Stevco.dimeski@msu.edu.mk, Stevco.dimeski@stb.com.mk

Marina Blazhekovikj Toshevski PhD

Faculty of Information and Communication technologies - Bitola,
marina.blazekovic@yahoo.com

ABSTRACT

The bank industry has changed a lot in recent years thanks to the growth of FinTech. The internet has revolutionized the way we do banking. Online banking allows customers to bank from anywhere at any time. It is fast, convenient and secure. FinTech companies have created new, better ways to provide banking services and products to consumers and businesses. This state has forced traditional banks to change the way they operate in order to stay competitive. IBank is the future of online banking. It is an intelligent system that provides personalized recommendations and advice based on your unique financial situation. IBank makes online banking easier and more efficient. For Generation X, the traditional way of delivering products and services from banks to customers (consumers) is through a single distribution channel, which is a physical visit to the bank branches. But generational change also implies challenges to the demands of new generations. Applying FinTech to the banking industry from an innovation and customer selection industry has grown into one of the factors for the survival of a specific bank. The subject of research in this paper is the application of technology in the banking industry as well as the influence of the fintech industry in that process, complemented by an analysis of acceptance by end users, individuals and legal entities. The same compared to the conditions and processes in RNM."

KEY WORDS: FinTech, e-banking, Ibank

¹ original research paper

INTRODUCTION

The processes of applying technological advances in the banking industry (segment of the FinTech) which in turn mark the process of depersonization in the banking industry are already in the advanced stage. At first, the same applies to a segment in the service section as an alternative space to dispose of our own funds, and today it should be noted that the world as we knew, which our favorite was, simply disappears. Data and analyzes that confirm this are contained in the reports of the National Bank, State Statistics Office, Eurostat database, etc.

First of all, let's point out that FinTech² (coinage and a financial technology shortcut) is not something new in the banking industry. Simply the implementation of technological achievement in offering banking services has its own history. The beginnings themselves are in terms of the alternatives to the funds as a substitute for cash:

- By the second half of the 20th century, as cheque processing became automated, billions of cheques were issued annually. These volumes peaked in or around the early 1990s. Since then cheque usage has fallen, being partly replaced by electronic payment systems. In an increasing number of countries cheques have either become a marginal payment system or have been completely phased out³.
- Bank cards (debit, credit, prepaid). An initial idea and purpose was for use and payment in trade. The beginnings have been since 1928 and since 1960 a new era of development of financial services has begun with the transition from analogue to digital signal.

²FinTech in a free translation and in a broader sense, indicates the application of technical-technological achievements in the financial industry.

The term "fintech" can also refer to the technologies themselves, regardless of whether they are applied by new start-up companies or traditional market participants such as banks.

- Automated teller machine (ATM) as an electronic device that enables customers of financial institution to perform financial transaction, such as cash withdrawals, deposits, funds transfers, balance inquiries or account information inquiries, at any time and without the need for direct interaction with bank staff.
- Telephone banking or phone banking became commercially available in the 1970s. Over time, the development of other opportunities offered by banks, in the early 2000s, began a long-term decline in the use of telephone banking in favor of Internet banking. The advent of e-banking, mobile banking further eroded the use of telephone banking in the 2010s.
- Online banking implies a reduction in the branch network dependence, due to reduced operating costs, customer advantages are time, geographical and price. Internet banking functionality are viewing account balances, getting extracts, checking recent transactions, transferring money between accounts and payment. Already some banks work as a "direct bank" (also called "Neo Banks" or "virtual banks"), where they work fully through internet banking (The 20 Best Online Banks of 2022, <https://www.gobankingrates.com/banking/banks/best-online-banks/>).
- Mobil Banking as the latest trend in electronic banking. It is an integral part of the online banking by being used on a mobile phone or a similar device as an instrument of executing banking services. The development is at that stage that the mobile apparatus is already E- wallet, and for smaller traders and POS terminal. It is followed by challenges and risks that are yet to manifest.

We are already living in the fourth industrial revolution, which, supplemented with the new 5G technology, will contribute to the FinTech in the banking industry to revolutionary changes. The fifth generation networks are far more flexible and dynamic, which provides, in addition to the existing ones, support for completely new and different new, innovative services and application of artificial intelligence and will redefine the way we use smartphones, computers and other technology.

IMPACT OF FINTECH ON THE BRANCH NETWORK AND EMPLOYEES IN THE BANKING INDUSTRY

The benefits for the users of the online services are generally systematized as geographical (no need to go to the bank and get the required information, realization of the requested service, product from any place and destination),

time (saving time for service, walking, waiting for counter, and on the other hand the service is not related to the working hours of the branches) and price (as costs related to the previous two benefits, as well as opportunities for price benefits from using the services and products through this distribution channel). At the same time, e-banking provides certain benefits to banks in terms of operating costs, as it reduces or eliminates the need to rent premises, hire bank clerks, and so on. Also, even when it does not cause cost reductions, banks offer services in the field of electronic banking to maintain a competitive position in the market, as well as to maintain existing and gain new customers.

	Number of local units (branches)					Number of employees of domestic credit institutions				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Belgium	3,347	3,195	2,983	2,739	2,430	54,657	53,059	51,758	50,458	48,924
Bulgaria	2,936	3,060	3,142	3,420	3,536	30,352	30,070	29,991	28,238	27,364
Czech Republic	1,977	1,873	1,868	1,807	1,606	39,654	39,990	40,057	39,735	39,136
Denmark	995	1,007	958	938	886	41,123	42,240	41,737	41,681	41,267
Germany	31,974	30,072	27,834	26,620	24,100	619,621	597,319	584,688	572,662	575,508
Estonia	99	95	91	83	74	4,924	4,920	5,317	5,425	5,733
Ireland	1,048	916	891	876	856	26,811	26,891	27,940	27,692	26,257
Greece	2,331	2,168	1,981	1,834	1,702	42,647	41,707	39,383	36,727	33,097
Croatia	1,142	1,112	1,035	964	916	20,607	20,434	20,028	19,563	19,109
Spain	28,807	27,480	26,166	24,004	22,392	186,982	183,053	179,054	173,447	171,432
France	37,261	37,209	36,519	35,837	32,276	410,925	409,925	404,555	403,726	402,899
Italy	29,039	27,374	25,454	24,350	23,520	295,305	281,928	274,056	280,219	273,669
Cyprus	544	460	386	328	282	10,663	10,632	8,946	8,554	8,347
Latvia	261	249	218	137	95	8,803	8,492	7,345	6,915	6,209
Lithuania	506	480	406	359	367	8,643	8,922	9,165	10,334	10,650
Luxembourg	230	217	210	210	186	26,062	26,149	26,317	26,333	26,101
Hungary	2,691	2,418	2,235	1,956	1,877	38,751	38,885	39,434	39,659	38,609
Malta	105	102	98	94	81	4,755	4,924	5,046	5,175	5,069
Netherlands	1,674	1,619	1,489	1,260	942	82,836	75,215	72,199	59,690	62,393
Austria	3,934	3,765	3,631	3,513	3,109	72,957	71,927	71,798	71,479	70,226
Poland	13,647	13,855	12,645	12,273	10,429	173,043	168,800	166,011	160,878	153,896
Portugal	5,323	5,001	4,136	4,052	3,859	51,472	50,794	50,866	50,771	49,719
Romania	4,798	4,596	4,382	4,059	3,871	55,396	55,044	53,737	53,106	52,650
Slovenia	583	560	532	526	479	10,055	9,844	9,683	9,553	9,201
Slovakia	1,293	1,233	1,174	1,140	1,074	19,788	18,879	19,539	19,393	18,580
Finland	1,039	970	858	801	738	21,965	21,381	21,148	19,490	19,754
Sweden	1,734	1,979	1,463	1,450	1,475	41,732	41,271	42,886	44,620	46,794
United Kingdom	-	-	-	7,649	-	387,571	368,037	352,556	344,076	-
Euro area	149,398	143,165	135,057	128,763	118,562	1,959,871	1,905,961	1,868,803	1,838,043	1,823,768
EU	-	-	-	163,279	143,158	2,788,100	2,710,732	2,655,240	2,609,599	2,242,593

Picture 1. Credit institution

According to the data in the Picture 1, the trend of decreasing the number of branches and the number of employees is clearly seen (<https://sdw.ecb.europa.eu>). The average in the Euro area for the period 2020/2011 decreased by 33%, while only for the last 5 years it was 20.6% or structurally the last 5 years of the analyzed 10 years participate with 63%, which indicates an accelerated dynamics. Above this average for the last 5 years are Ireland, France, Czech Republic with 83%, Belgium with 73.3%, Austria, Cyprus with 70%, Germany with 68.3%. Banks in RNM have a less developed banking network compared to most of the countries covered by the analysis. According to the number of inhabitants served by one bank, ie one business unit, RNM is in the second half of the list. The same, having in

mind the trends of decreasing the number of branches and the number of employee, can be accepted as a positive moment, because the banking industry in RNM will be significantly out of these processes.

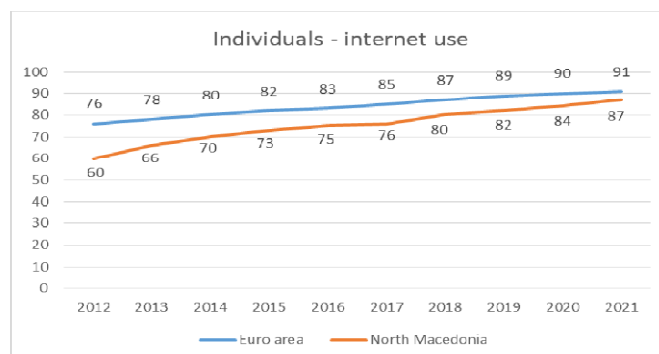
COMPARATIVE ANALYSIS OF RNM IN TERMS OF ONLINE BANKING TRENDS

We have previously defined trends that reflect the application of FinTech in the banking industry, taking into account the evolutionary timeline. FinTech's development and implementation in the banking industry varies from continent to continent, from country to country. The causes can be defined as multifactorial. The basic precondition for implementation or even more for exploitation (use by clients) is the use of the possibility of using the Internet.

Table 1. Individuals – Internet use (percentage)

2021	Individuals - internet use
Iceland, Norway, Denmark, United Kingdom, Ireland, Kosovo, Luxembourg, Switzerland, Finland, Sweden	95-100
Netherlands, Belgium, Spain, France, Austria, Germany, Estonia, Latvia, Cyprus,	91-95
Euro area	91
Czechia, Slovenia, Slovakia, Hungary, Lithuania, Malta, Romania, Poland, North Macedonia	86-90
Italy, Serbia, Portugal, Montenegro, Croatia, Turkey,	81-85

Source: Authors' calculations based on data from Eurostat



Graph 1. Individuals – Internet use

As can be seen from the Table 1 and the Graph 1, it could be concluded that the average in Euro Area is 91%. People who use the Internet in RNM are below the EU average. But what is encouraging is the positive and progressive accelerating trend towards the EU average. More specifically, if the difference a decade ago was 16 pp now in 2021 it has been reduced to only 4 pp (<https://ec.europa.eu/eurostat/web/digital>).

We have detected that one of the preconditions for implementation of online banking is met (difference of 4 pp compared to the EU average), it remains to see the other preconditions. It is about whether the banks have an online offer for their products and services and whether the clients, the residents accept and use them through the I-Bank services.

What is the offer of the Macedonian banks in the IBank segment? Bank's provides (web sites of major Macedonian banks):

- Some banks without a monthly fee for electronic and mobile banking, some with a monthly charge for the use of Banking. Also for issue of retail digital certificates, some bank up to 60% lower transaction fees than those made at counters
- Easy to use
- Maximum security and protection
- Constant availability of banking services
- E-banking, m-banking, phone banking, ATM banking

Overview of the balance and the daily changes on:

- denar and foreign currency accounts
- savings deposits
- payment cards

- loans
- printing of statements for denar and foreign currency accounts
- printing of statements for payment cards
- view of loan repayment schedule and all payments realized on loan sub-accounts.

Payments and transfers of funds from your accounts:

- payments for public utilities and other denar payments in the country
- transfer of funds from your own savings deposits account to your own transaction account
- transfer of funds to term saving deposits and demand saving deposits, such as: on already opened FX savings accounts of the Beneficiary and on opened denar savings accounts for which the Beneficiary has authorization for having insight in
- transfer of funds on credit cards
- 24/7 transfers to internal accounts of individuals
- purchase/sale of foreign currencies (non-cash)
- creating and sending payment orders in denars to non-residents in the country
- creating and sending payment orders in foreign currencies to non-residents in the country and abroad

Online application for:

- consumer loan and other requirements related to loans
- credit cards.

Other:

- change of limits for POS terminal and ATM card transactions
- submission of online complaints regarding card transactions
- submission of a request for a new list of codes and activate a pre-received list
- correction of subscriptions granted
- updating personal data.

Innovative:

- mobile wallet
- cash withdrawal from ATM without the use of a card. The mobile phone of the electronic banking user is converted into a device for withdrawing cash or a device for sending cash to other persons, who do not have to be clients of the bank. Through electronic banking or mobile application, you generate a 10-digit code that should be used at an ATM for a period of 12 hours.

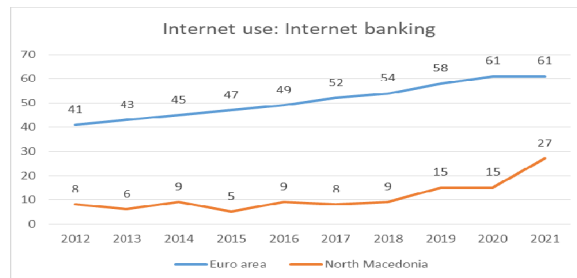
ATM (cash cash in and cash out) cashless functionalities:

- Pin change
- Payment of utility bills

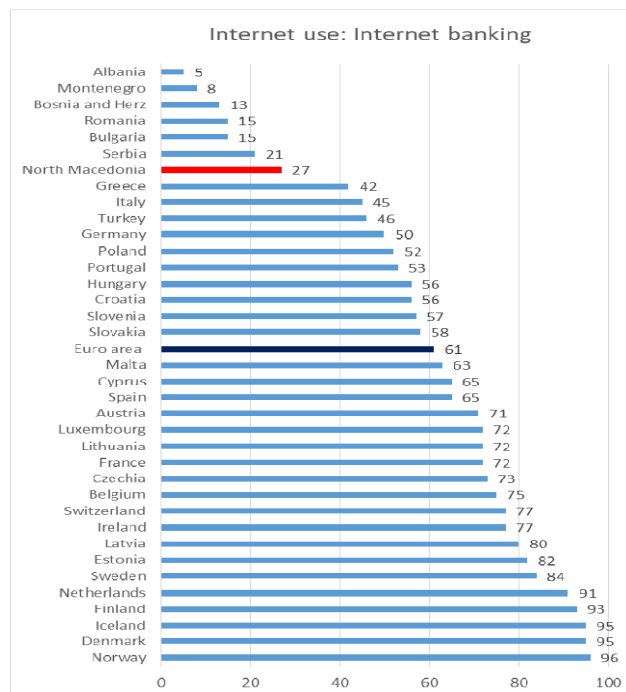
- Transfer of funds between accounts
 - Current accounts
 - Credit cards and My Cash
 - Visa Internet account
 - Loan account - housing/auto/consumer
 - Flexi deposit
- Mini monthly credit card statement
- Top up credit on a prepaid mobile phone account

The offer of I-bank is diverse, the opportunities offered by the banks in RNM, followed by attractive conditions, usually without commission for using the services and internal transfers, as well as over commissions for transactions than the regular ones for using the branches.

After understanding the prerequisites for using IBank, the use of the Internet by the population, as well as the offer by banks of IBank services, we can approach an analysis of the use by customers, comparable to other countries(<https://ec.europa.eu/eurostat/web/digital>).



Graph 2. Internet use: Internet banking



Picture 2. Internet use: Internet banking

People who use IBank in RNM (27%) are significantly below the EU average (61%). But what is encouraging is the movement that as a result of the Covid crisis and achieved a significant increase from 15% in 2020 to 27% in 2021. However, there is still a significant lag. The situation is similar in our environment, Serbia with 21%, Bulgaria, Romania with 15% people who use IBank, Bosnia and Herzegovina with 13% and Montenegro with 8%, Albania with 5%, and before us is Greece with 42%. This can be seen on the Graph 2 and Picture 2 (<https://ec.europa.eu/eurostat/web/digital>).

CONCLUSIONS

FinTech as a rapidly growing industry uses technology to improve financial services and products. FinTech is changing the way we bank, invest, save and borrow money. It's making financial service more accessible, convenient and affordable.

IBank as the future of online banking offers everything that need to successfully manage with finances; makes online banking easier and more efficient, it is fast, convenient and secure, allowing us to bank from anywhere at any time.

The small market and legal regulations can be cited as major obstacles for faster development of the FinTech sector in our country.

The development of the FinTech sector in our country will contribute to increasing competition and will enable greater and easier access for citizens to new and cheaper financial services. For this purpose, it is necessary to undertake more activities for the development of the Fintech sector, such as cooperation with the innovative business community, but also an appropriate regulatory framework.

However, acceptance by FinTech clients in the banking industry varies from continent to continent, from region to region, country to country. This is followed by a significant "time lag". Careful analysis is needed, supplemented by respect for cultural, sociological differences, financial literacy, level of urbanization, level of education of the population, age structure. On the other hand, a special subject of analysis are the risks (which were not covered in this paper), which also have a significant impact on the process of acceptance of these processes.

REFERENCE:

1. <https://ec.europa.eu/eurostat/web/digital>
2. <https://www.gobankingrates.com/banking/banks/best-online-banks/>
3. <http://makstat.stat.gov.mk>
4. <https://nbstat.nbrm.mk>
5. NBRM (2021) Annual report
6. NBRM (2020) Annual report
7. State Statistical Office, <https://www.stat.gov.mk/>
8. <https://www.smefinanceforum.org>
9. <https://sdw.ecb.europa.eu>
10. <https://www.worldbank.org/en/publication>
11. Web sites of the major macedonianbanks, Stopanskabanka AD Skopje, Komercijalna Banka AD Skopje, NLB Banka AD Skopje, Halk Banka AD Skopje, Sparkasse Banka AD Skopje