

BANKING INDUSTRY ANALYSIS:
THE COMPETITIVE ADVANTAGE
OF BANKS, WHICH IMPLEMENTED
FINTECH

BY

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A thesis submitted in partial fulfillment of
the requirements for the degree of

MA in Business and Financial Economics

Kyiv School of Economics

2019

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LIST OF ABBREVIATIONS

NBU National Bank of Ukraine

FUIB (PUMB) First Ukrainian International bank

AI Artificial Intelligence

IT Information Technologies

SWOT Strength Weakness Opportunities Threats

HHI Herfindahl-Hirschmann Index

CAGR Compound Annual Growth Rate

TA Total Assets

TE Total Equity

ROA Return on Assets

ROE Return on Equity

CHAPTER 1. EXECUTIVE SUMMARY

The objective of this paper is to describe the study of banking sector industry and analyze in details the market of the banks with implemented Financial Technologies.

The study included a detailed outlook of the current banking sector state and short overview of events, which caused that type of conditions. The banking sector overview includes the analysis of banks' shares at the industry, the key indicators of their performance, amount of non-performing loans in their portfolio. The deep analysis of banks with adoption FinTech is built in the following way: using Five Forces framework it was found out the key facts of the market, than provided the comparison of banks with FinTech to those, which operates without and by using SWOT analysis highlighted main features of FinTech adoption.

In general, there are 77 banks in the Ukraine and 49% of them implemented FinTech. For most of them, FinTech adoption means creation own mobile app and online payments enablement, which leaves huge room for development other digitalization tools. The banks with FinTech put efforts to decrease amount of non-performing loans (NPL), adapt their operation to the new NBU capital, liquidity etc. standards and at the end all of them passed 2018 stress-test.

Based on the 5 Forces Analysis, it is possible to say, that the market of Financial Technologies in banks is characterized by high possibility of new entrants due to the upcoming new technologies, high level of substitutes, due to the low level of trust to Ukrainian banks, high bargaining power of suppliers given by developed sector of IT-services and strong bargaining power of buyers, associated with low switching costs and big amount of substitutes at the market. On the other hand, benchmarking analysis supported the initial assumption of competitive advantage for banks with FinTech. FinTech friendly banks are associated with higher share of administrative costs, mostly due to the high amounts of marketing expenses. The comparison banks with and without FinTech resulted in better ROA results and what is more important

ROE results for digitalized banks. At the same time, banks with adopted financial technologies distinguish by higher interest coverage ratio. Based on general benchmarking analysis, banks, which adopted FinTech have more stable position in the industry, comparing to those, which did not do that

In addition, SWOT analysis concluded main distinguishing features of this technology. As strength it was identified that FinTech plays a significant role in stabilizing banking sector, by making transaction more secure and reliable. Artificial Intelligence decrease the probability of issuing non-performing loans and Blockchain make the transaction more transparent. The main weakness remains to be high cost associated with digitalizing own activity, so smaller banks have to use external not own services and bigger banks are burdened with loans. The financial literacy in Ukraine, investment climate at the market creates numerous opportunities, supported by the government regulation implementation and upcoming new technologies. Privatbank plays a role of the biggest threat at the Ukrainian market, being the biggest state bank with the most digitalized operations.

Concluding, FinTech is unique technology, which significantly strength banking sector.

CHAPTER 2. INDUSTRY ANALYSIS AND RESULTS

2.1. Banking Industry Overview

The development of Ukrainian Banking Industry started in 1991 and was conducted through several phases. It should be mentioned, that the events happened during 2008 and 2014 influences the most this sector of the economy. The 2008 international financial crisis objections led to the beginning of the changes in all financial structures in the world, and Ukraine is no exception. Banking and financial institutions faced new rules and had to adapt to them. Regulatory institutions raised requirements to the operating conditions, including Basel II and III recommendations. They included capital, liquidity requirement, management standards, made restriction regarding Money Laundering stricter. A list of events, which happened one-by-one during 2014-2015, led to a recession in general economy and in banking sector consequently. The hryvnia showed a rapid depreciation in 2015 and inflation reached the level of 43.3% in December 2015¹. All of that caused several imbalances in the economy. Ukrainian banking industry started a process of reformation in 2014 and gained several significant results. As of the end of 2018, there were 77 banks, which maintained its operation performance. During the years VTB was considered insolvent, one has become a financial institution, and two other banks completed M&A. Based on **total banks' asset**, the general industry analysis is accounted for 1911 UAH billions. State-owned banks have the biggest share of **net assets** - 34%, Foreign – 30.4%, Privatbank – 20.7%, Private Banks hold the smallest share – 14.8%

Using the NBU classification, based on the ownership type, banks are classified as:

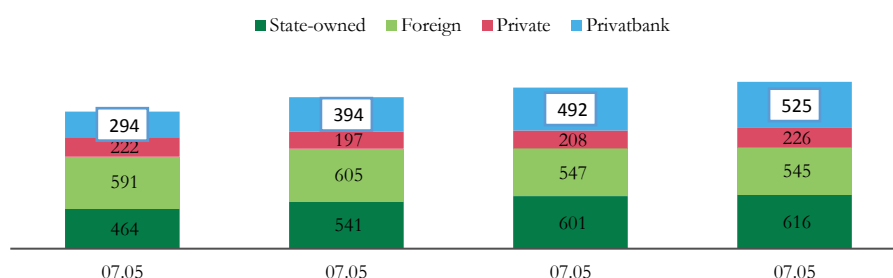
1. State-owned banks, total number 5 (Ukreksimbank JSC; Oschadbank JSC; CB Privatbank PJSC; Ukrgazbank JSB; Settlement Center PJSC)

¹ As a 2014-2015 YoY change, NBU calculations

2. Foreign banks, total number 21 (Raiffeisen Bank Aval, Prominvestbanl PJSC, UkrSotsbank PJSC, UkrSibbank etc.)

3. Private Banks, total number 51 (Bank Alliance PJSC, Altbank JSC, TAScombank JSC, A-bank PJSC etc.)

Figure 1. The Share of banks in the industry, by total assets, UAH mln



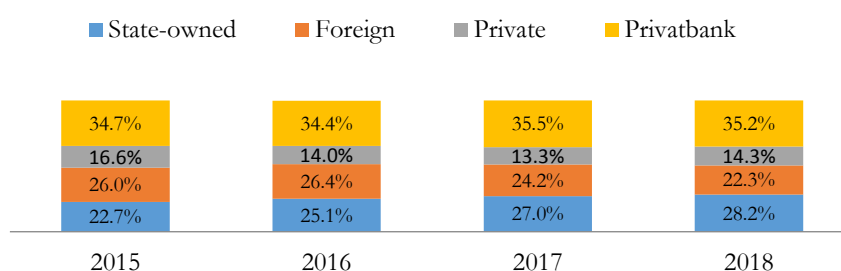
Source: NBU web-site

It should be mentioned that the Privatbank share increased by 1.3 p.p, as well as Private Banks – by 0.9 p.p. According to the NBU statistics, the top-20 banks of Ukraine hold the 91% of total asset, which is evidence of the high concentration rate in the industry².

The loan performance of the banks in 2018 followed the expansion path. Regarding interbank loans, the situation changed the total amount decrease. Instead of them, banks preferred NBU certificates of deposit. Retail deposits remain to be an important part of banks' operation. During the 2018, comparing with 2018, the total number increased by 34.1%. Looking inside, the share provided by State-owned banks increased by 1.2%, by other – decreased.

² Author's estimates, based on NBU metadata

Figure 2. The share of retail deposits in banks portfolio

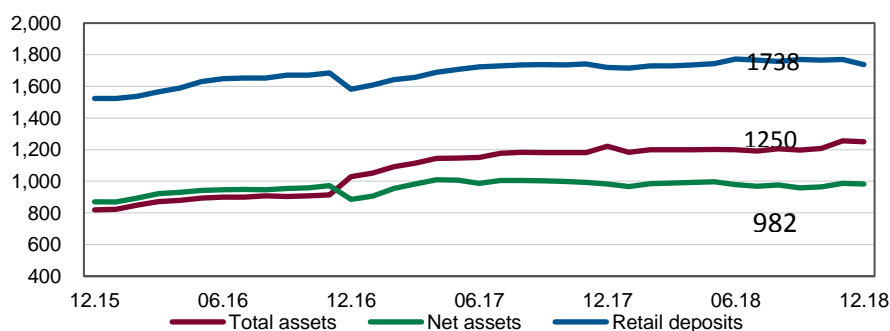


Source: NBU web-site

One of the most important facts, which affect banks' operations, is interest rates. During the crisis nominal interest rates on loans in national currency went up to 24%. Since 2015, they were reduced, and in 2017 it was 17% on loans and 7% on deposits. However, by the NBU decision, in 2018 it was raised from 14.5 to 18%. That led to increase in deposit rates for corporate deposits sector to 14.5% and the gap between 6-months and 12-months deposits became wider.

National Bank of the Ukraine in its quarterly issued Banking Sector Review reported statistics of the concentration rate in the sector. The metric is calculated by using the Herfindahl-Hirschmann Index (HHI). Results have shown that the sector is moderately concentrated based on the retail deposits data is perceived as competitive if determined by total and net assets amount Figure 3.

Figure 3. Banking sector concentration: HHI index



Source: NBU web-site

One of the features of the Ukrainian banking sector is the share of non-performing loans. Historically happened so, that there were a lot of “pocket” banks and a lot of non-performing loans in banks’ loans portfolio. The NBU actions resulted in cleaning of banking sector and reduction NPL ratio to 51.7% as of April 2019 (NBU).

Table 1. Non-performing loans

Lending:	<i>UAH, mln/share %</i>
Corporate loans	936 473
ratio of non-performing loans. %	55.2
Retail loans (incl. individual entrepreneurs)	207 314
ratio of non-performing loans. %	44.1
Interbank loans and deposits (excl. correspondent accounts)	35 154
ratio of non-performing loans. %	3.1
Loans to state and local governments	2 766
ratio of non-performing loans. %	28.89
Total loans	1 181 707
ratio of non-performing loans. %	51.7
incl. banks:	
with state participation. of which:	65.2
CB "PRIVATBANK" PJSC	82.4
other than CB "PRIVATBANK" PJSC	50.6
belonging to foreign banking groups	39.2
private	21.8
insolvent	53.12

Source: NBU web-site

Based on the analysis, it is possible to say, that Privatbank still holds the biggest share of non-performing loans relative to other banks and corporate loans have the biggest amount of NPL of all types of loans. At the same time, Privatbank has the

smallest share of NPL (21.75%) and interbank loans and deposit (excluding corresponding accounts) takes only 3.09%.

Ratios as a complementary tool to the analysis provided above show that from year-to-year perspective, the indicators become up to the requirements. At the same time, to make this sector healthier the benchmark of the ratios should be updated to the Basel 2 standards.

Table 2. Ratios analysis

	2015	2016	2017	2018	2019	Key indicator
Regulatory capital (UAH. bln)	166.8	1102.4	111.9	118.9	124.9	
Regulatory capital adequacy. %	13.81	9.63	12.65	16.25	16.52	no less than 10%
Quick liquidity ratio. %	56.01	78.5	60.39	56.35	76.47	no less than 20%
Current liquidity ratio. %	84.17	82.2	100.57	103.99	101.47	no less than 40%
Short-term liquidity ratio. %	85.84	92.58	89.69	94.80	92.36	no less than 60%
Maximum credit risk exposure per single counterparty / Regulatory capital. %	22.16	23.1	21.87	20.92	19.26	no more than 25%
Total large risk exposure / Regulatory capital. %	313.13	470.16	261.03	203.50	192.41	no more than 800% of Regulatory capital
Maximum credit exposure to related parties. %	17.40	45.56	30.79	17.56	9.87	no more than 25%

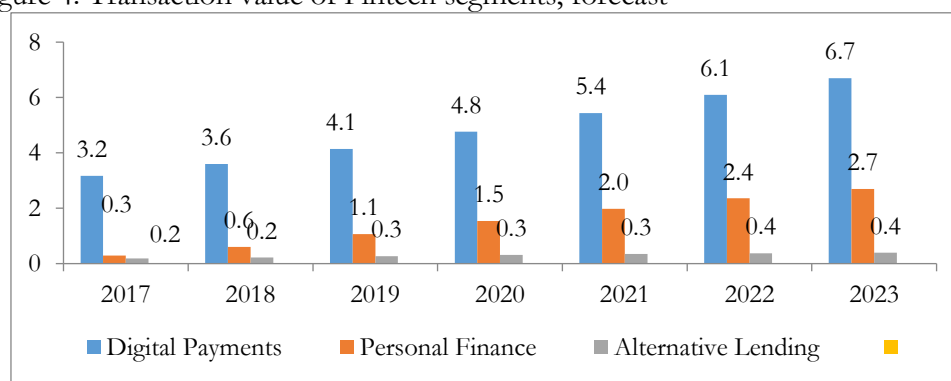
Investment in securities issued by single entity. %	0.01	0.002	0.0003	0.0001	0.0005	no more than 15%
Total investment in securities. %	2.68	0.92	0.43	0.22	0.15	no more than 60%

Source: NBU statistics information

2.2. Market of the banks with implemented FinTech

All around the world, Artificial Intelligence, Big Data, Blockchain are being implemented in financial sector day-to-day operations to secure transactions and propose more customized products. As of today, Ukrainian banks adopted and implemented digital technologies in 4 segments: Digital Payments, Alternative Financing, Alternative Lending and Personal Finance. Out of those four, Digital Payments are most commonly used technology and are expected to continue upward growth Figure 4.

Figure 4. Transaction value of Fintech segments, forecast

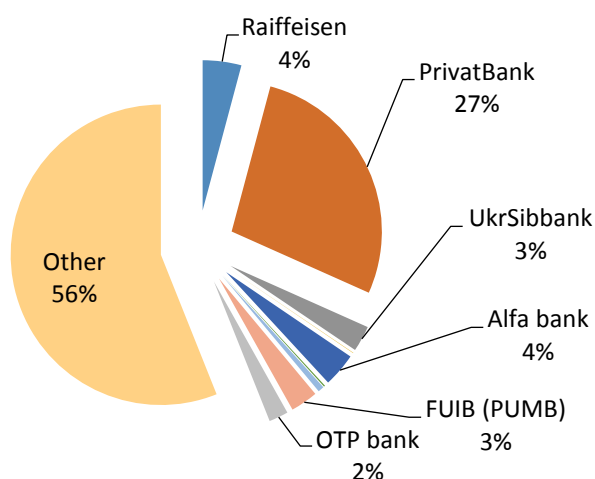


Source: Statista

The initial motivation to adopt FinTech in Ukrainian banks in 2008 was attract bigger amount of customers, on the other hand in 2018 digitalization was taken as a tool to secure the transactions and operations. Privatbank is the brightest example of successful FinTech technologies implementation and its unique feature remains to be a fact that bank proposed services not only on the Ukrainian territory, but across European countries. At most FinTech widespread at the loan market, including P2P-

lending, E-wallets, Bitcoin, T-commerce and M-wallets (mobile banking), which also contribute to the development of online loans and short-term loans to population for a short period of time. In general, FinTech-friendly banks have a 43.95% share of total banks (the share is provided based on total assets). The shares by bank are distributed as follows: Privatbank has 27.52%, Raiffeisen bank 4.16%, FUIB (PUMB) 2.94%.

Figure 5. Share of banks with FinTech



Source: NBU web-site. Banks' web-site

There are “hot” (to be implemented) and “cold” (already implemented) topics in FinTech among Ukrainian banks.

“Hot topics”:

- Digital banking
- Automation
- Biometry identification
- Machine Learning
- Artificial Intelligence
- Forecasting and modelling
- Smart Contracts
- Bots

- Blockchain
- BigData
- Registers digitalization
- ICO
- IT security
- Cybersecurity
- Payments' security
- Open API

“Cold topics:

- E-Wallets
- Mobile applications
- Cash transactions
- Mobile technologies
- Payment cards
- Internet-acquiring

One of the most important trends of FinTech is blockchain technology, advantage of which is to save the transaction information chain (time. place. direction. amount etc.). This information, besides the transaction key, is in unencrypted key. Moreover, the same information is encrypted, when transaction is deleted. Such technologies enable to simplify the exchange of information between contractors and reduce the IT services support costs (in large corporations). In governmental services' structures, the use of blockchain allows to reduce the level of corruption due to the transparency of the transaction chain.

Privatbank activity is characterized by numerous issues, associated with its operating activities, but still remains the largest bank in Ukraine, in terms of the number of assets and number of subsidiaries. As of the end of 2018, 57.4% of corporate clients are those who works with the bank and 72.9% of individuals receive services from the bank. It was the first bank, which developed specialized app

“Privat24”, implemented Apple Pay on the Ukrainian territory and gave the opportunity to make online electronic payments using Liqpay. On the other hand, there are 3 other banks becoming strong competitors to the Privatbank at the market of financial technologies.

Raiffeisen bank Aval is the Ukrainian based bank of big Austrian holding group, which operates in Ukraine from the beginning of 1991 and as of December 2018 included 498 operating branches. In 2018, the bank implemented new Internet Banking Platform Raiffeisen Online – desktop version and mobile app for Android and iOS. At the end of financial year there were 392 thousand of registered clients using mobile app. Users have a possibility to browse through current information about the card, make electronic contracts and transfer money into other Ukrainian banks without authorization. In addition to that, there were 22 thousands of clients using non-contact payment system NFC.

First International Ukrainian Bank started operating activity in 1991 and have 6 regional centers and 175 branches on the Ukraine territory. Online App provide the customers to make usual monitoring activity and moreover, electronically open a loan limit without long documentation process.

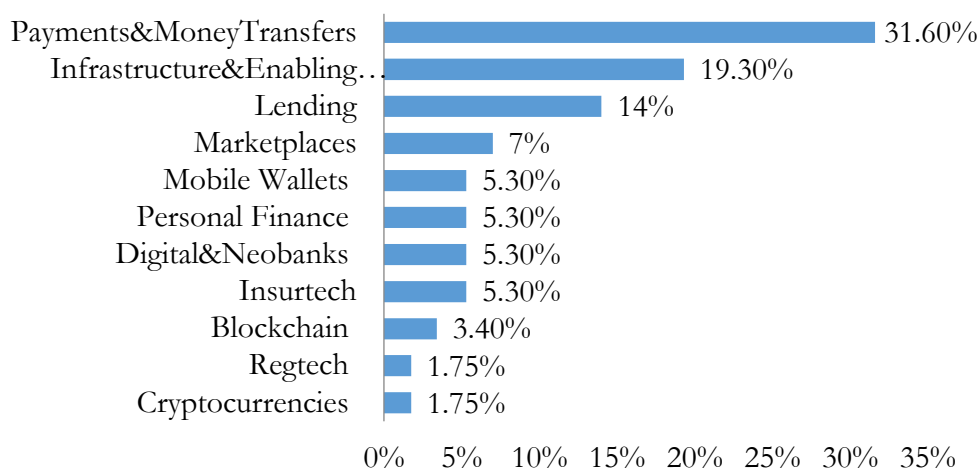
In Ukrainian banking sector is present another unique example of FinTech adoption – Monobank, which currently operates as a part of Universal bank. The bank has a distinguished story of foundation and development. The bank was created by the initiative of the ex-top-managers of PrivatBank, who decided to leave their positions after nationalization. They created Fintech Band together with Universal bank. The initial investment is accounted for 2 million of dollars to create an app and general investments into project – 150 millions of dollars. On May 2017, it was announced, that the team started working on the project and in October they proposed a beta version to the clients. At the beginning, there was no need to come to the bank branch, the only requirement was to take a photo of documents and send them using the app. In the beta version clients were able to set a credit limit, p2p transfers, to top up mobile account and pay for internet services and. unique value

proposition of Monobank – cashbacks. From the beginning, clients had an access to receive cashback in category “Beauty” and “Entertainment’ -10%, and for in medicine – “10%”. Monobank was one of the first started cooperation with Apple Pay. During the following year the number of services expanded and included currency accounts and interest-free installment plan. On December 2018, there were more than 600 thousand of clients.

2.3. Threat of Entry

The FinTech sector in Ukraine is at the earliest stage of maturity. For most of the customers it takes time to understand the new technology and start using it. According to the Unit.City, FinTechCluster, BankOnline and the 1991 Open Data Indicator surveys, during last 4 years, the biggest Ukrainian banks implemented and developed financial technologies, but mostly in only two spheres payments&money transfers and infrastructure and enabling technologies.

Figure 6. FinTech areas



Source: Unit. City survey

As a part of the Ukraine Financial Sector Transformation it was identified that the prior sectors for FinTech development in Ukraine are digital banking, automation, biometric identification, machine learning. AI (Artificial Intelligence), forecasting and modeling, smart contracts, Chatbots, blockchain, Big Data and digitalization of all registries, cybersecurity and payment security. The success of Monobank, as an

example of implementation of AI, chatbots and automation, is an evidence of high demand for that type of services and, consequently, high possibility of coming new players to the market.

The process of new technologies adoption is supported by NBU. In June 2017 National Bank of Ukraine supported and initiated Comprehensive Program of the Ukrainian Sector Development. The areas and activities, which were supposed to be changed:

- The documents could be exchanged, transferred and submitted electronically, using electronic signatures; at the same time to cancel seals, stamps and official authorized copies of documents
- The possibility to use services of banking sector online and using smartphones
- The substitution of person identification using ID by Bank ID system to determine a person
- The transition to the latest standard for SWIFT payments ISO 20022

With the governmental support FinTech market starts attracting foreign investments and becomes attractive field for new comers since a lot of new technologies remain unadapted.

The second point that should be mentioned is legislative system. According to the Ukrainian law, an organization that performs FinTech is considered a “financial institution” and must have statutory capital of at least UAH 3 million. That type of organization has to be registered in the state register of financial institutions, which is under the National Commission consideration and regulation. To be able to operate in sphere of payments, the company needs to obtain a license for currency translations. Although, nowadays, non-banks are not allowed to open accounts for customers and electronic money can be issued by banks. Regulation of financial market is distributed among 3 authorities: National Bank of Ukraine, Financial Services Commission and Security Commission. The main affair here, that Payment systems & Remittance is under NBU regulation at the same time Non-banking

financial institutions, where FinTech technologies gained the highest degree of development, is under Financial Services Commission. In the end, there are 2 institutions which are aimed to manage Financial Technologies. So, that creates additional risk of instability and several boundaries, which decrease the threat of entry.

The market of banks with FinTech includes a number of players, which started adoption of the technologies. The Monobank's use case is an indicator that market is ready for new technologies and customers prefer new digitalized solutions. At the same time, from the governmental side, the market is under regulated, which case potential risks for players with new-coming technologies. Based on that, it is possible to say that at the market presents a moderate level of threats of entry.

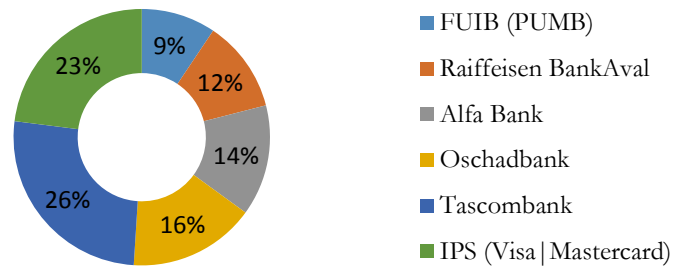
2.4. Supplier's Bargaining Power

The providers of FinTech are those, who stand behind of the development and expansion of this sphere, which ensures the banking sector advancement. At the beginning, Fintech was proposed by startups and around 58% started their activity after 2015. It is explained by the sphere of interest and education of founders: 65% have experience in IT and 30% in finance; both categories speak English at advanced level. The management team mostly consists of people, who had previously employed at Privatbank, Raiffeisen Bank Aval, and Alpha-Bank (70%). 23% are classified as business environmental managers and 7% associated with IT sector.

More than 60% of the FinTech startups were founded within last three years. About 84% of the FinTech companies have already launched services and products, and 16% are in the startup phase. In 2016, such companies as Finhub, Atticlab, Altbank, Paycore, came to the market. Monobank, BlockchainLab, P2Bcredir, Bintel – are those who joined in 2017.

The Business Model of the most of FinTech developers is built either on subscription principle or direct cooperation with payment system providers. The primary partners include FUIB (PUMB), Oschadbank, Alfa Bank, Raiffeisen Bank Aval, Tascombank, and international service providers (Figure 7).

Figure 7. Providers of FinTech



Source: UnitCity survey. author estimates

The key question for FinTech providers is financing their activities. Many of them use their own funds (6% prefer to reinvest their profit and 45% use own investments by founders). but 49% have or are seeking investments from outside investors. The distribution of the last category is following: 83% is financed by private investors. 12.5% use Venture Capital investments and 4.5% use ICO). In addition to that. 72% of FinTech providers in the Unit City survey confirmed that they are seeking for additional investments. The listed main purposes were “for scaling business and marketing (68%)” and “for implementation new technologies (15%)”.

As a conclusion, to all written above, the bargaining power of suppliers in the FinTech market is at the high level with a huge potential for growth.

2.5. Threat of Substitutes

The providers of FinTech are those, who stand behind of the development and expansion of this sphere, which ensures the banking sector advancement. At the beginning, Fintech was proposed by startups and around 58% started their activity after 2015. It is explained by the sphere of interest and education of founders: 65% have experience in IT and 30% in finance; both categories speak English at advanced level. The management team mostly consists of people. who had previously employed at Privatbank. Raiffeisen Bank Aval. and Alpha-Bank (70%). 23% are classified as business environmental managers and 7% associated with IT sector.

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2.6. Buyer's Bargaining Power

As of January 1st 2019 there were 77 banks, 56.7 mln. banking clients and 94.3 mln. of accounts and the banks with adopted FinTech take 44% share of total banks. The switching costs from one bank's services to another are low. The key fact here, due to the low level of trust to the banking sector., people prefer to keep their money by investing in real estate, rather than put on deposit. In addition to that, banking sector consumers are characterized by high sensitivity to price and financial literacy of the population is in line with neighborhood countries, which is evidence of high

bargaining power inside the market Table 3. There are a lot of substitute products available at the market, provided by non-banking institutions. This also confirms that the buyer power is high.

Table 3. Financial literacy index – comparison

Component	Ukraine, 2018	Average of Ukraine neighbors, 2016	Average of countries in OECD survey, 2016
Knowledge score (out of)	4.0	4.4	4.6
Behavior score (out of 9)	5.2	4.8	5.4
Attitude score (out of 5)	2.4	3.0	3.3
Overall financial literacy score (out of 21)	11.6	12.1	13.2

Source: USAID. Financial Sector Transformation Project

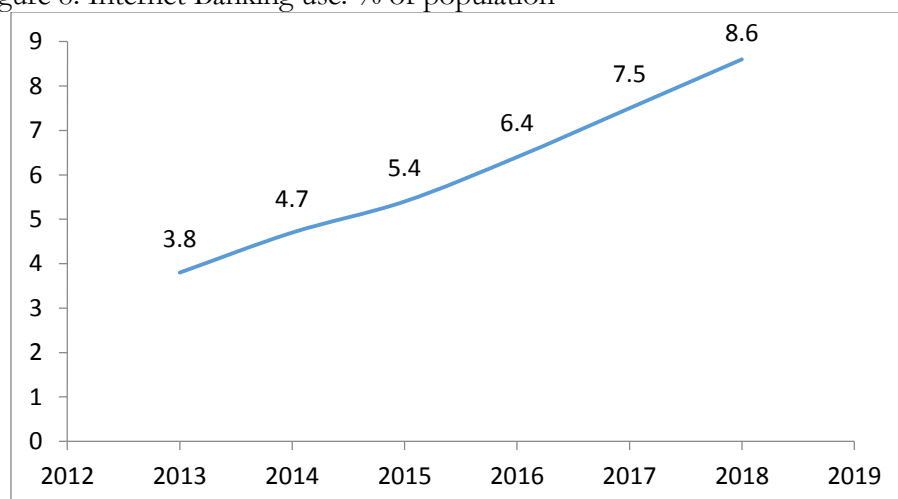
At the same time. the development of alternative financing and alternative lending support the buyer’s bargaining power. Based on the Digital Market Outlook Data (Statista) alternative financing segment is growing at compound annual growth rate (CAGR) of 19% from 2017 to 2023 worldwide. The fact that this market is normally focused on small and medium-sized enterprises and freelances provides the supportive argument to the increasing buyer’ bargaining power.

2.7 Industry Rivalry

There are 77 banks in Ukraine and 44% of them adopted FinTech technologies. With an active growth in Internet users, the demand for high level of financial services rapidly increasing. So, banks have to compete with each other to attract new

customers. Fintech is no longer considered as an innovation, rather than most clients perceive it as a necessity. The level of competition in the FinTech market is at the high level, which is an incentive for providers to provide clients with higher level and wider range of products. As a supportive argument here, that the success of FinTech mostly depends on the level of IT services. Here plays a distinguishing role, that Ukraine is characterized by a significant number of professionals in IT services and this gives a potential for growth for FinTech.

Figure 8. Internet Banking use. % of population



Source: Statista

2.8 Competitive Benchmarking

The half of the banks in Ukraine operates with financial technologies support. It gives them possibility, not only to have competitive advantage in terms of attracting new clients, but also to decrease an amount of operating costs and optimize their day-to-day operations. On the other hand, as it possible to see from Table 3., FinTech friendly banks are associated with higher share of administrative costs, mostly due to the high amounts of marketing expenses. All of the banks, excepting Alfa-Bank, passed the NBU stress-test 2018, in terms of core capital ratio (upper than 7%).

Comparing banks with FinTech and those without, it is possible to see that first group shown better ROA results and what is more important ROE results. At the same time, banks with adopted financial technologies distinguish by higher interest coverage ratio. Based on general benchmarking analysis, banks, which adopted FinTech have more stable position in the industry, comparing to those, which did not do that.

Table 4. Benchmarking (FinTech friendly banks are in italic. all indicators in % except TA and TE)

	TA (UAH. bln)	TE (UAH. bln)	ROA	ROE	Interest coverage ratio ³	Core capital ratio ⁴	Adm. exp. % Int. inc
<i>CB PrivatBank</i>	525.7	38.8	1.4	19. 6	3.19	17.6	34.1
Oschadbank	279.6	18.7	0.0	0.4	1.02	13.8	42.9
Ukreksimbank	232.8	8.7	0.2	4.5	1.15	8.4	17.3
Ukrgazbank	99.6	5.9	0.1	0.9	1.03	13.5	30.0
<i>Raiffeisen Bank Aval</i>	79.4	12.7	1.4	8.5	3.15	10.6	54.8
<i>Alfa-Bank</i>	69.6	5.6	0.8	9.5	1.62	6.7	62.2
Sberbank	65.1	7.0	-1.6	- 14. 5	-4.11	12.5	40.5
<i>FUIB</i>	56.2	7.1	1.3	10. 6	2.68	9.4	50.8
<i>UkrSibbank</i>	53.0	7.3	1.2	8.5	3.87	14.0	65.4
Prominvestbank	47.2	3.4	1.3	18. 4	7.40	12.5	121.0
<i>Universal</i>	12.5	1.0	0.9	11. 7	1.02	14.6	80.2

Source: Author estimates based on NBU and banks' data from web-sites

³ Interest coverage ratio calculated as EBIT divided by interest expense

⁴ Core capital ratio calculated as Equity divided by Total Assets, based on NBU data

2.9 FinTech market SWOT analysis

The implementation of financial technologies gives banks a competitive advantage comparing to the other banks. On the other hand, it is associated with several limitations, which prevent institution to show rapid growth. To evaluate all consequences of FinTech adoption, here is provided SWOT analysis.

Strengths. Using the Privatbank and Monobank experience, as main advantage here should be mentioned the increase in payment transactions and operations using the Internet. As more and more clients prefer to use their smartphone in making financial operations, the possibility to make them by the mobile app attract more clients to the banks. With an increase of implementation IT service in everyday life and upcoming 5G technologies, the demand for technolized products and services. FinTech is a way to satisfy it in banking sector. Moreover, FinTech plays a significant role in strengthen the bank and banking sector in general. Artificial Intelligence decrease the probability of issuing non-performing loans and Blockchain make the transaction more transparent.

Weakness, Despite the fact, the mostly FinTech in Ukrainian banks is engaged in payment and cash transfers; it requires significant cost ad takes time to be implemented. Most of institutions begin their path with financial technologies with creating mobile app. which is unique product for each bank with the unrepeatabe procedure of authorization. For banks, which have not enough resources to become a part of this trend, the upcoming ubiquity of Fintech becomes a threat of leaving the market. At the same, banking industry is still characterized by high-level of risk. To attract new clients, not only local, but international as well, Ukrainian banks have to secure their transactions and develop resilient system for external economic system shocks.

Opportunity. The IT-services nature of the FinTech makes the area of improvement wider in several times. The first point that should be listed is customized product. The synergy of Artificial Intelligence and Big Data, with support of bots provides a bank with a numerous amount of information about particular

customer and, consequently, bank is able to propose suitable product or a service for a target customer. Moreover, with the use of mobile apps and increasing Internet penetration the amount of potential clients is no more limited by the country or region size. This trend is followed by 5G technology, which together are supposed to create a general worldwide financial system with a high level of transactions transparency.

Threats. The banking sector occupies an important role in the government structure and at the same time remains to be a risky sphere. Due to that, there are a lot of regulations and requirements to the banks, which created a number of limitations in their day-to-day operations. At the same time, the internet ubiquity and development out-of-banks financial operators create competition at the market and pose additional affairs for the banks.

CHAPTER 3. CONCLUSIONS AND RECOMMENDATIONS

FinTech – in the broad sense of the concept are technologies used by financial institutions. It is considered to be a synergy of financial sector services and technology sector. Given the fact, that the financial sector is very risky and according to that, highly regulated by law, most transactions through the bank require time. This type of issue arose after the 2008 crisis, which lead to such conditions at the market, so the banks become to be burdened by a large number of rules and regulations that they should follow.

During last several years, the banking sector in Ukraine gained significant results in terms of increasing solvency, liquidity and transparency, gained with FinTech support. Nowadays, banks with this type of technology have a 49% share at the market with an outstanding indicators and huge potential for growth. The provided analysis goes in details of current situation at the market and SWOT analysis highlights main key factors.

During the history of the banking sector development, there were 2 banks, which were pioneers in digitalization their operation – Privatbank and Monobank. The first one remains to be the biggest bank in the Ukraine and the first one, which created own mobile app, enabled internet payments and maintain their operation not only in Ukraine. The Monobank is the only existing online bank, with cashbacks and Artificial Intelligent engaged in loan approval process.

FinTech in banking sector market is at the beginning of the development path. Among long list of possible way to digitalize, in Ukraine technologies are adopted only in payments&money transfers and infrastructure. With increasing bargaining power of buyers and high competence rate of suppliers, it creates huge growth potential for the market.

In the rapidly changing world, banks have to react and adapt to the new market conditions quickly. First of all, Ukrainian banking industry requires secure loans and deposits system implemented in general digital payments system. As more and more

clients seek to use smartphone in making transactions, rather than visiting banking institutions, ability to provide customers with loans on a distance will be a huge benefit. An appropriate tool to achieve that could be Artificial Intelligence and use of Big Data. The first one is commonly used in Monobank practice and to ensure general system stability should be implemented by other banks. Moreover, the use of Big Data could support bank to target the client more effectively and take leading position not only on the regional market.

The second point to mention is to expand the number of services provided by the banks. The worldwide practice shows the mature players, such as Aliexpress, Amazon, Venmo and more others create their own payment systems to satisfy customer needs. On the Ukrainian regional level, this field of the development is still hidden and creates numerous opportunities for the banks.

The third point to add is the use of blockchain technology. The implementation has two main benefits, such as higher level of security and lower operating costs. The nature of blockchain diminishes the probability of fraud and money laundering and at the same time aimed to decrease the reserves.

As a forth recommendation here should be mentioned actions to increase financial literacy among the consumers. The Digitalization leads to expanding the sources to receive knowledge, such as online education and distance learning. The customer awareness of the banking system basics and potential future trends build a strong negotiation between them and bank, which leads to the stability in the system.

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