

FINANCE AND MONEY TURNOVER

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OPEN BANKING: ADVANTAGES, POSSIBILITIES AND FEASIBILITY OF IMPLEMENTATION

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Global digitalization encourages all spheres to introduce new, sometimes even previously unseen, technologies. Thus, the banking sector was faced with the possibility of transition to a new stage with the introduction of unprecedented openness of financial data of all users – the so-called open banking system. World banking in terms of modernity may need to expand its capabilities and improve the very concept of conducting any financial transactions. In the world of technology, sooner or later it will be necessary to revise the existing views on how this or that field should function. The concept of open banking offers its version of simplifying the use of operations related to money and improving communication between the client and the provider of financial services. The article examines the concept of open banking and its influence, the advantages of this concept, analyzes research on the topic of its popularization and real experience of exploitation around the world. Many countries have already begun to implement the principle of openness of financial data, and some are already actively using the privileges of this concept, despite the shortcomings, which will also be discussed in this article. The expediency of the transition to open banking is the main question facing the governments of countries thinking about updating their banking systems. The article also provides statistical data from various sources to support some points of view and to understand the overall picture. Attention is also paid to the objective opportunities that open banking can potentially open, and to the biggest concerns of consumers related to the openness of financial data.

OPEN BANKING: ПЕРЕВАГИ, МОЖЛИВОСТІ ТА ДОЦІЛЬНІСТЬ ВПРОВАДЖЕННЯ

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банкінг, відкритий банкінг,
банківська система

Світова діджиталізація спонукає всі сфери до впровадження нових, іноді навіть досі небачених технологій. Так і банківська сфера зіткнулась із можливістю переходу на новий етап із запровадженням нечуваної відкритості фінансових даних всіх користувачів – так званої системи open banking. Світовий банкінг у розрізі сучасності може потребувати розширення своїх можливостей і вдосконалення самої концепції проведення будь-яких фінансових операцій. У світі технологій рано чи пізно потрібно буде переглядати існуючі погляди на те, як має функціонувати та чи інша сфера. Концепція open banking пропонує свій варіант спрощення у користуванні операцій, пов'язаних із грошима, та вдосконалення комунікації між клієнтом і надавачем фінансових послуг. У статті розглянуто поняття відкритого банкінгу і його вплив, переваги цієї концепції, проаналізовано дослідження на тему її популяризації і реального досвіду експлуатації по всьому світу. Багато країн вже підступилися до впровадження принципу відкритості фінансових даних, а деякі вже активно використовують привілеї такої концепції, незважаючи на недоліки, про які також буде йти мова у даній статті. Саме доцільність переходу на open banking є головним питанням, яке постає перед урядами країн, що замислюються про оновлення своїх банківських систем. У статті також наведено статистичні дані різних джерел для підґрунтя деяких точок зору і для усвідомлення загальної картини. Звернено також увагу на об'єктивні можливості, які потенційно зможе відкрити open banking, і на найбільші занепокоєння споживачів, пов'язані із відкритістю фінансових даних.

Statement of the problem

Rapid changes caused by the constant growth of consumer demand for financial services, digitalization and intense competition reflect the current level of business development around the world. The global banking system was affected by the coronavirus pandemic, and the Ukrainian banking system was also affected by the Russian attack, reducing, in particular, the number of banks and branches, their hours of operation, the list of operations, and also forcing them to close during air raids for security reasons. Thus, the issue of digital transformation of banking arises – and there is already a solution to this issue in the world, which takes online banking to a new level – open banking.

Analysis of recent studies and publications

Scientists such as I.Yu. Tarasov, G.V. Markiv, and O.V. Tkachenko made an unequivocal great contribution in their works to the issue of the introduction of the open banking system in Ukraine. K.I. Bunechko and N.G. Omelchuk also studied the advantages and disadvantages of open banking.

In light of recent events, global banking is facing some difficulties that can be overcome with the help of the new open banking system, which claims to be the first in the banking sector. Therefore, the study of the meaning of implementation, possibilities, advantages and prospects of using the system requires further analysis.

Objectives of the article

The main goal of the article is to determine the expediency of orienting the banking sector as a whole to the new concept of open banking services.

The main material of the research

Financial market players are pushing traditional banks to give customers ownership of data instead of keeping it in-house. These pressures vary by country or region and may come from authorities (e. g. EU and UK) and in other cases from customers (US). Whatever the reason, the end result is almost always open data. It helps banks and financial companies find new markets for their products and services.

In open banking, banks make their application programming interfaces (APIs) available to different companies, giving them access to the financial data they need to create new products and services. This approach

provides bank account holders with more financial alternatives. The advantage of the innovative method for the client is that it avoids organizational and bureaucratic red tape. Customers must give their bank and other financial service providers permission to share their account information with open banking platforms.

According to the results of an insider business study by the company “Penser” – a specialized consulting firm specializing in the payment industry and financial technologies, the planned expectations by 2026 are approximately 39 million open banking customers worldwide and a market value of 395 billion USD (fig. 1) [1].

Open banking contributes to the growth of competition in the banking industry, namely:

- the development of digital banking around the world and forces banks to change their operational strategies;
- cooperation with fintech companies and third parties, not competition with them;
- creation by fintech companies of better tools for managing personal money;
- improving the services of conventional operators and their cooperation with external groups.

For example, the famous Spanish international bank “BBVA” created its open platform in 2018. It uses APIs to allow third parties to provide financial products to customers without offering a full range of banking services.

An API is a set of codes and protocols that define how different software components should communicate with each other; in other words, they provide communication between different programs. Through open banking, commands are sent to third-party providers via an API.

APIs are also required for Banking-as-a-Service (BaaS), an important aspect of open banking. BaaS is a complete procedure that uses APIs to connect fintech companies and other companies directly to banking systems.

As a result of the UK’s new open banking rules, HSBC, an international commercial bank, introduced the Connected Money app in May 2018, which allows customers to view multiple bank accounts, loans, mortgages and credit cards in one place.

It is important to remember that open banking can help banks reach more customers, develop revenue-sharing ecosystems where designated operators provide their customers with access to services provided by third parties in exchange for a subscription fee or referral fee. Moreover, by using BaaS and offering core services to fintech

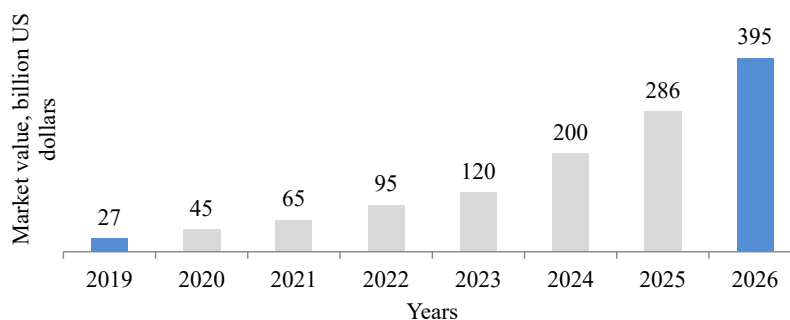


Fig. 1 – Open banking market size and its projected level

companies and other third parties, banks can commercialize their infrastructure through open banking [2].

The use of open banking is growing worldwide (table 1), although many countries are developing their own approaches that take into account regional markets and policy objectives. However, they often fall into one of two categories: market driven and government driven; mixed regulation is less common. In markets where open data legislation is new, the experience of early adopters is used.

We will analyze the strengths and weaknesses of open banking.

1. Centralized services: open banking allows banks to fully control the financial services that consumers need (such as advice, loans, transfers and financing) from a single dashboard. Customers with multiple bank accounts can access all their accounts and make payments using a single TPP, eliminating the need to log in with different security protocols or screen scans.

2. High level of security: open banking requires that these open APIs that expose sensitive data meet a number of security criteria established by law or industry regulations. “OAuth 2.0” and “OpenID Connect” (OIDC), which are already in use in the security area, are two examples of steps taken to improve the security of APIs and customer data in the context of PSD2.

3. Improved customer experience: Virtually every element of banking and finance can be changed with open banking. One of the key benefits of these developments is the Customer Experience, as open banking allows consumers to interact with their bank seamlessly, regardless of their chosen TPP program.

4. Stakeholders can learn more about financial data through open banking and open APIs, ultimately empowering banking consumers.

5. A simplified procedure for obtaining a loan with open banking: you can provide your data and lenders will find the most favorable offers themselves. Also, the loan procedure itself will become much simpler: paperwork will be minimized because data collection will take minutes, as they are publicly available. New payment methods may also appear.

6. Access to a variety of financial products will become much easier.

These arguments are closely related to the possibilities they can open up. We will analyze information from the research of the company “Celent” – a leading research and consulting company specializing in technologies for financial institutions around the world, and formulate possible steps and strategies (table 2) [4].

Let’s analyze the weaknesses of open banking.

1. Accessibility: A recent study by “Chase” bank, a digital bank owned by American banking giant J.P. Morgan, showed that only young people use mobile banking applications most often. You can trace the dependence of consumers on banking innovations by looking at the generational table called “Digital Banking Attitudes Study”, compiled by the independent company “Select”, which surveyed customers of the bank “Chase” and people who are not its customers, but the data are very similar and averaged two answers (table 3).

We see that Millennials and Gen Z use mobile banking apps most frequently for various transactions (for budgeting, checking credit scores, and creating savings goals), meaning that using open banking will be more difficult for older generations. In addition, some customers do not have access to the Internet and are unable to connect to it.

Polish researchers Michal Polasik and Radoslaw Kotkowski in their work “Acceptance of open banking

Table 1 – Distribution of the integration of the open banking system among the countries of the world

Regulation				
Regulatory driven		Market driven		Hybrid driven
In working condition	In development	In working condition	In development	In working condition
Australia	Argentina	South Africa		Colombia
Azerbaijan	Georgia	South Korea		
Angola	Egypt	Singapore		
Bahrain	Indonesia	USA		
Brazil	Йордания	Switzerland		
UK	Kazakhstan			
Hong Kong	Canada			
EU	Kenya			
Israel	Kuwait			
India	Oman			
Qatar	Russia			
Malaysia	Ukraine			
Mexico	Philippines			
Nigeria	Chile			
New Zealand				
United Arab Emirates				
Saudi Arabia				
Taiwan				
Turkey				
Japan				

Source: created by the author based on [3]

Table 2 – Overview of the possibilities of implementing the open banking system today and in the future

	Now		In the future	
For customers	Income Verification: credit applications	release of credit card applications that support open banking.	Automated account management*	enabling billing visibility and automation, including variable totals.
	Account Aggregation	account balance, account information, transaction history.	Bank change service	transfer of products for new bank customers, debiting, etc.
	External credit card management	the ability to enable balance-based payments and payment automation.	Tax deferral	tagging expenses as they occur and “packaging” them at tax time.
	Combined list	a single list of future expenses in consolidated accounts.	Personalized recommendations	product and service recommendations based on customer data.
	Single account and payment details	a unified list of recipients, a consolidated list of transactions with the possibility of searching.	Unified “financial health” coaching	conversational financial information based on artificial intelligence.
	Open banking enabled application: credit applications	release of credit card applications that support open banking.	View-only account sharing*	ability to share view-only accounts.
	Faster and easier connection	exchange of data to verify the required personal data and requirements.		
	Unification of public finance management (PFM) and budgeting	with PFM and budgeting enabled, you can view all customers' spends.		
For business	Access permission for an accounting specialist	controlled access to financial data (for example, for an accountant).	Bank change service	transferring data (for example, transaction history) from another bank.
	Simple integration of the accounting package	easy integration of financial data with accounting packages.	Basic tax packaging of private entrepreneurs	Marking business expenses from personal accounts and “packaging” them for tax time.
	Anticipation of business needs	responding with individual offers of services and products.	Unified financial management of business	review of all expenses in banks.
	Faster and easier adaptation*	helping business customers to use open banking (e. g. for KYC).		

Note: * – depends on external data that will become available in the future.

Table 3 – Consumer activity in the mobile banking program by generation

Generation	Total	Generation Z (1995–2012)	Millennials (1980–1994)	Generation X (1965–1979)	Boomers (1946–1964)
View account balances	86,5%	86%	89,5%	86,5%	78%
View account statements	68%	62%	73,5%	67%	61,5%
Money transfer between bank accounts	64%	65,5%	71,5%	60,5%	50%
Deposit checks	59,5%	58%	66%	54%	53,5%
Payment of bills (e. g. in institutions)	49%	45,5%	53%	50%	40,5%
Credit rating check	32%	28,5%	56,5%	30%	20%
Use peer-to-peer payments	24%	20%	31%	21,5%	14,5%
Use the online chat to ask a question	16,5%	18%	27,5%	13%	12,5%
Budget creation and tracking	13,5%	25%	17,5%	9%	4%
View a forecast of monthly expenses	13%	17%	18%	9,5%	4,5%
Create a savings goal and track progress	12%	21,5%	18%	5,5%	2%
Open a new bank account	9,5%	11,5%	12%	7%	5,5%

Source: created by the author based on [3]

services among consumers in Europe: the role of privacy, trust and accessibility of digital finance” also investigated that it is young people who have a more positive attitude towards open banking [5].

2. Weakening of the bank-customer bond: There are fewer face-to-face meetings between the consumer and the bank as everything is handled online, which can lead to relationship termination.

3. Low customer trust: security, confidentiality and use of personal information, hacker attacks, system failures, problems with the Internet (fig. 2).

According to a “Deloitte” study [6], the possibility of personal data theft and data misuse are the two features of open banking that most worry respondents (69% and 60%, respectively). At the same time, financial problems, such as losing money, are considered quite low (41%).

Based on the arguments regarding the strong popularity of open banking around the world, the possibilities and future more customer-oriented implementation, as well as the conscious understanding of the reliability and security of the concept of open banking, the implementation of the open banking system is promising, despite the existence of obstacles and negative moments. We consider it expedient to focus attention on the following points:

- increased attention to the development of data security, which is the main obstacle to the popularization of open banking;
- the age category of consumers (initially, these are people who have been using online banking for a long time, and then pay attention to the expansion of other groups of consumers);
- popularizing the idea of ownership (or joint ownership) by customers of their financial data, for example, by giving customers a sense of “control”, a clear function of consent to data sharing combined with a simple method of canceling consent;
- concentration on open banking services, including tools for improving the financial condition, as well as complex financial indicators (fig. 3);

– working with regulators to promote API industry standards and ensure regulatory compliance that protects customer privacy or data security without hindering the advancement of open banking’s market strategy.

Conclusions

So, the possibility of introducing the open banking method, which is new for the modern banking system, has quite significant advantages and ways of transitioning to a new, more open and competitive situation on the market. However, consumers have some doubts about the feasibility of implementing the concept of open banking, considering a number of risks.

But the open banking system is innovative, and its implementation in the modern market will provide an opportunity to create a new competitive environment, bring new functionality and convenience to the list of banking sector services. The scientific validity and objective positive assessment of innovations, supported by the experience of dozens of countries around the world, make them part of the undeniable progress of human development.

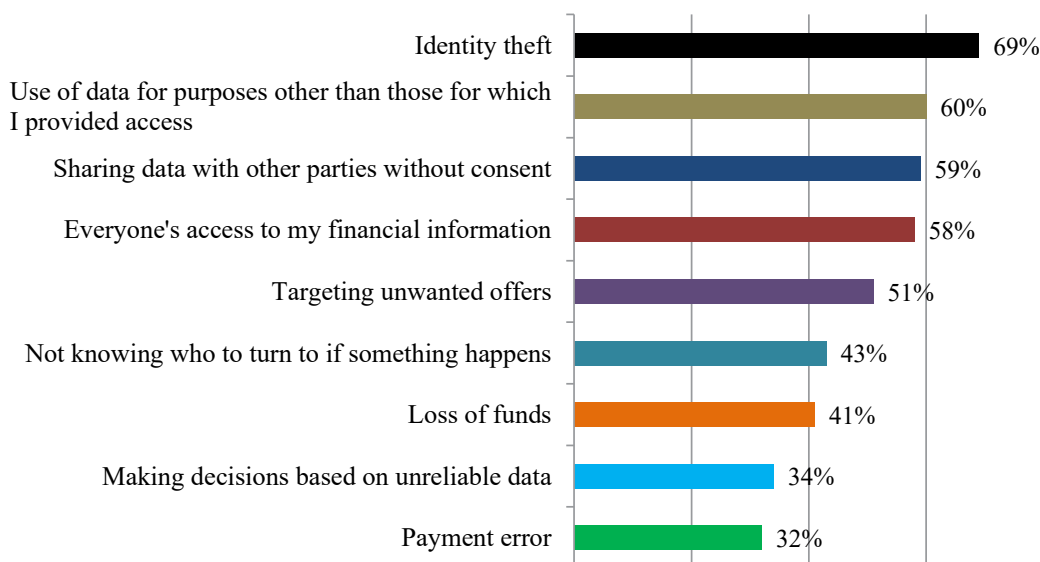


Fig. 2 – The biggest concerns of consumers interviewed in different countries regarding the concept of open banking



Fig. 3 – Methods of improving the financial life of open banking clients

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