

CHALLENGES AND OPPORTUNITIES FOR CONSOLIDATING THE AVAILABILITY OF FINANCIAL SERVICES

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Summary

This research paper addresses the need to achieve a higher financial inclusion and the challenges to a higher adoption of digital payments in Romania, while decreasing the use of cash, related to the physical infrastructure and regional disparities, financial intermediaries, consumer preference and financial education, by conducting a descriptive research, using quantitative and qualitative analysis of secondary data. The study highlights the current infrastructure, some relevant legislation implications and the population’s payment habits and perception. We presented some opportunities provided by European funding and digital technologies in increasing accessibility, consumer confidence and a higher adaptability of payment services to meet consumers’ needs and expectations, addressing the developments made in Romania, the limitations of implementing a cash-less economy which would need to include the on-boarding of all disadvantaged groups as well, potential risks related to cyber-security and cyber-resilience and possible public policy implications to eliminate gaps in digital literacy, the level of financial education, cybersecurity awareness and the need for public-private coordinated pro-inclusion measures. The conclusions of this research could be used by authorities, by the banking sector and by FinTech companies, to tackle reaching the optimal balance between public intervention and private initiative for increasing financial inclusion, taking the national context into account.

Keywords: *payments, financial inclusion, financial infrastructure, financial intermediaries, financial education*

JEL: *A29, D12, I22, I24, I25, O12, O18*

UDC: *336.71(498)*

Introduction. One of the goals of the European Retail Payments Strategy is increasing the accessibility of financial services, as having access to financial services and financial markets are among the factors that influence the sustainable and competitive development of EU member states. Increasing the safety and efficiency of the payment systems contributes to increasing the public's confidence in the national currency, leu.

Literature review. The World Bank defines financial inclusion as the situation in which individuals and businesses have the possibility to access financial products and services (credit and insurance, savings, payments, transactions) useful for them and affordable to them, that meet their needs and are delivered by financial institutions in responsible and sustainable ways. Therefore, the availability of financial services to the population is one of the measures which impact financial inclusion.

In the *Financial inclusion strategies: reference framework* paper published by the World Bank Group, the main types of indicators to be taken into account when measuring financial inclusion are:

- access indicators, which reflect the infrastructure's depth of expansion necessary for providing financial services, such as the penetration of bank branches or Points-of-sale (POS) devices in rural areas, or the demand-side barriers customers face in accessing financial institutions (such as costs or information);
- usage indicators, that measure how customers use financial services over time (for example, number of transactions on the accounts, number of electronic payments made);
- quality measures describing whether financial products and services meet customer needs and the range of options available including in relation to customers' understanding of the financial products they can use.

A fourth indicator to assess and understand the effect of financial inclusion is private sector performance and investment in human capital (Pierce, Ortega, 2012).

Usually, the financially excluded population is socially excluded as (Fernández-Olité, Paredes-Gázquez, 2018), which makes the poor even more poor. The inequality of opportunities invariably leads to wasting productive potential, by inefficient allocation of resources, and thereby undermines economic efficiency. Therefore, ensuring that the population has equal chances to develop their potential is essential both from a moral and economic point of view.

Out of all the services provided by financial institutions, the scope of our research was limited to payment services.

One of the drivers of a shift to less cash transactions has been the intensification of electronic commerce and the digitalization trend, manifested globally. There is a positive correlation between making cashless payments and using the internet or mobile phone, as mobile applications can be used to make payments.

Ensuring the safety and efficiency of payment systems contributes to increasing public confidence in making payments, in the payment instruments used, in payment systems and implicitly in the Romanian national currency, the leu (Isărescu, 2006).

Research methodology. We conducted a descriptive research, using quantitative and qualitative analysis of secondary data to emphasize the existing limitations and benefits in adopting instant payments in Romania.

Main results. According to the Global Findex Database, in Romania, in 2021, 31% of adults were unbanked, while 69% of adults were reported to have an account.

While there is a slight gender gap, as only 66% of women have an account, the largest gap is related to income gaps, as only 57% of poor adults have an account. This suggests that the poor category is not particularly in the target group of the financial institutions' expanding strategies either, as the potential profitability is low. The limitations faced by the supply side, namely the financial institutions, in offering financial services to vulnerable categories, such as the poor, are:

- the reduced levels of electronic payments due to the lower volumes of sales of merchants in rural areas, compared to larger firms placed in the urban areas, where the population concentration is higher, imply a lower interest from financial institutions to adapt offers to them;

- the lower aggregate demand due to a lower population concentration, which reduces the possibility of obtaining economies of scale for ensuring physical infrastructure;

- the value of the service to the beneficiaries is greater as the the network of users grows larger, for example if more people in the rural area made payments between them (network externality).

In the *Financial Inclusion in Romania: Issues and Opportunities* report of the World Bank, major discrepancies between the population living in urban areas and the population living in rural areas are highlighted. The gap deepens even more when analyzing poverty gap.

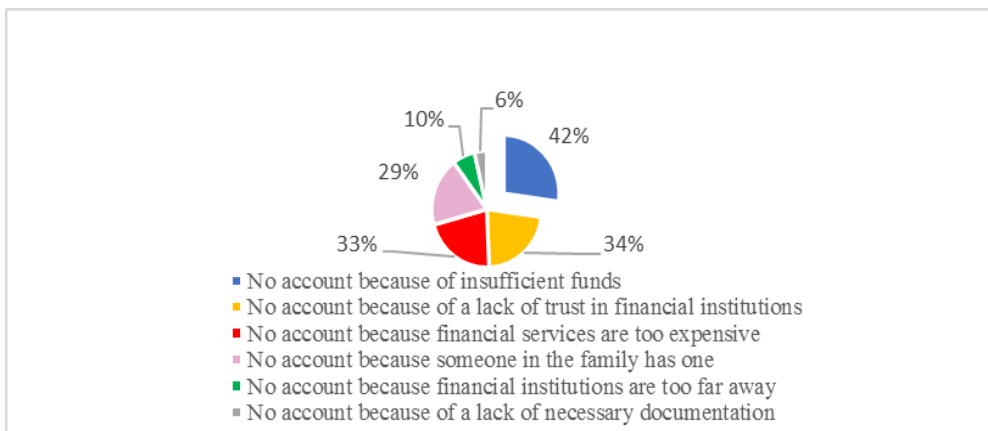


Figure 1. Reasons for not having an account in Romania in 2021

Source: Created by the authors based on the data provided by the Global Findex Database 2021 (2022)

Taking the results of the Global Findex parameters for Romania into consideration, we consider the main impediments to financial inclusion of the unbanked population to be:

- insufficiency of funds, combined with the cost of financial services;
- the low standard of living, Romania having one of the highest values of the indicator of risk of poverty and social exclusion; another problem is that of

- people who are inactive or formally unemployed, with little chance of gaining proper access to the labor market;
- low confidence of the population in the financial system (also influenced by financial education - the low degree of financial education in Romania is reflected by the percentage of people with minimal financial knowledge, which is at the lowest level in the European Union, 22% of the population, below the level of member countries with a similar level of development, measured by GDP/ per capita, respectively 35% in Bulgaria, 54% in Hungary, 42% in Poland and 44% in Croatia), correlated with
 - not having accessibility to a bank's branch, especially for on-boarding (which is of more importance in providing clients' ease, confidence, specifically tailored information in case of on-boarding of potential new clients);
 - the quality and low degree of adaptation of the offer of financial services to the needs of the population, especially in rural areas, given that in Romania the share of the population living in rural areas is high (rural population represented 46% of the total population in 2021);
 - the large share of the informal economy;
 - the lack of infrastructure necessary for making payments (such as POS terminals available for purchasing products and services from merchants).

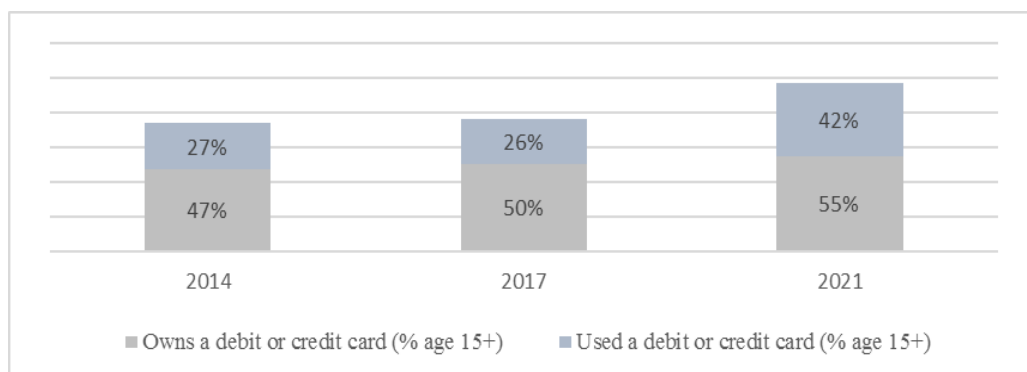


Figure 2. Evolution of card ownership and usage in Romania

Source: Created by the authors based on the data provided by the Global Findex Database 2021

While the evolution of card ownership and usage in Romania has been on an positive trend, strategic measures should be taken by authorities in order to close the gap.

47% of the adults in Romania have opened their first financial institution account to receive a wage payment or money from the government, from which 87% opened such an account to receive a wage payment, while the remaining 13% opened it to receive money from the government.

In economies such as Romania and Ukraine, account ownership rates among

more educated adults are almost twice those of less educated adults.

In Moldova and Romania, the share of unbanked adults receiving a pension payment is even higher, 24 percent and 33 percent, respectively, translating into a similar share of nearly 10 percent of all older adults in these economies who could be brought into the formal financial system if these payments were paid into accounts.

Among the adults receiving a government pension payment in cash in these four Europe and Central Asia economies, at least half have a mobile phone.

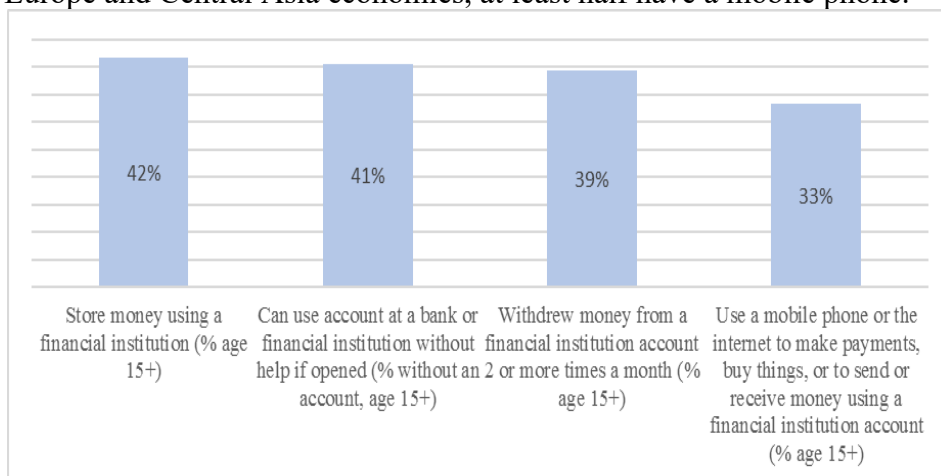


Figure 3. Usage of financial institution accounts by the Romanian population (2021)

Source: Created by the authors based on the data provided by the Global Findex Database 2021

Higher levels of internet usage, and mobile internet usage in particular, have been a major contributor to the successful adoption of new payment solutions in countries such as Denmark, Sweden, Great Britain. To certain types of customers, technology can offer great opportunities for on-boarding and it can increase the usage of financial services by existing clients.

The lower level of mobile phone usage in Romania for making payments represents an opportunity from progress in achieving a higher financial inclusion by developing attractive and intuitive, easy to use mobile phone applications (very good onboarding results were achieved in Africa by the use of pictograms in mobile financial apps, instead of using unfriendly and complicated menus).

Because, while Romania has very good internet coverage but the solutions for making payments is limited or lacking in rural areas, the population relies massively on cash for making payments.

According to the latest available data published by Eurostat, we observe that Romania has an important increase in terms of the availability and use of the Internet at the national level, and we consider this to represent a solid basis for the national implementation of innovative payment services.

These are some of the innovations brought by the banking system in Romania that can lead to a natural digitalization of payments at the national level.

With the launch of new mobile banking applications, nationwide, there are applications used by more than 1 million active users, for making current payments and managing funds. Among the most popular applications we mention: George from BCR, BT Pay from Banca Transilvania and Revolut.

The mobile applications offered by financial institution for providing financial services to their costumers on the basis of having an opened account have increased the usage of financial services. This, combined with issuing a virtual card or, as some banks do, different virtual cards that are issued for each online-payment, in order to ensure a higher protection against the cyber-attacks aimed at stealing money from accounts.

Some banks, such as Libra Bank, offer the possibility to open an account at their bank without physical presence to their potential customers, by using a smart systems that takes pictures of the person interested in on-boarding and of their ID, while comparing them, storing the data and granting access if they match. Such an initiative, as well as using authentication have the potential to solve the financial inclusion issues for certain cathegories of potential customers.

An important development provided to banks and payment service providers is the AliasPay service of TRANSFOND, within the SENT system (the low-value, high volume payment system used for retail payments in Romania), that allows simplified payments between two accounts opened at any banks or payment service providers connected to it, which only requires the payer to use the phone number of the payee when instructing a payment (if they are both enrolled in Alias Pay). If both banks related to their bank accounts are participants in the Instant Payment scheme, then the money transferred arrives instantly.

The Global Innovation Index (GII) 2021 measures Romania's innovation capabilities and, considering its income level (GDP/capita), Romania is below expectations, compared to the results of the high-income group to which it belongs, which shows that the potential development was not achieved. The stronger area is Knowledge and technology outputs (knowledge creation, impact and diffusion), while the weakest rakings are in Human capital and research (Education and Research and development) and Market sophistication (measured by Credit, Investment, Trade, Diversification and Market scale).

Lower expenditure on education and innovation linkages are weaknesses that we think could be turned into strong points, should these be addressed strategically.

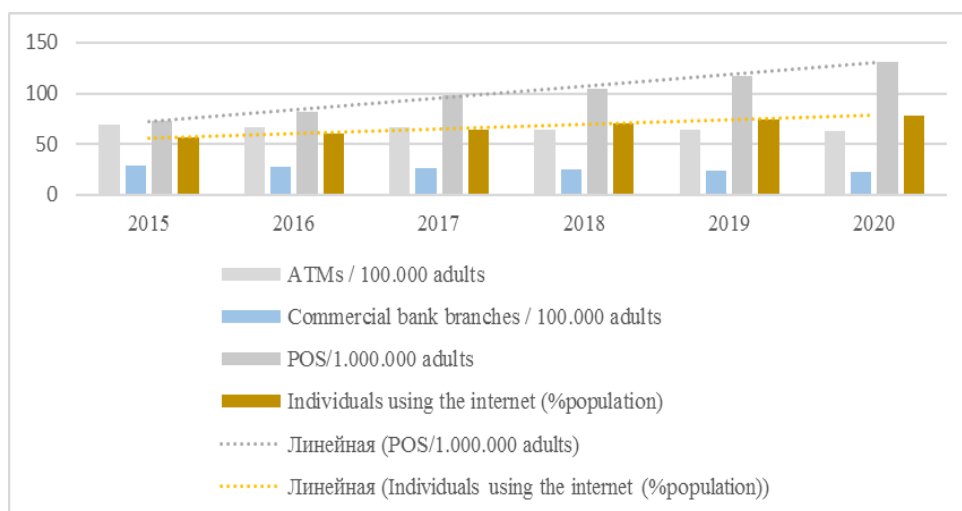


Figure 4. Evolution of the density of the infrastructure for financial services in Romania

Source: Created by the authors based on the data provided by the National Bank of Romania's Database and the World Bank's Database

A prerequisite in ensuring the availability of financial services nationwide it is the existence of relevant infrastructure to use payment instruments (the most widely used being cards, so for these it would mean the provision of POS terminals for making payments and having ATMs or providing services for cash withdrawal).

Until recent years, the focus has been in increasing the physical presence of financial institutions and trying to ensure a larger POS coverage for making payments at merchants, but progress in the rural area has been slow in this respect. Because of cost-efficiency, ease of reach and potential international reach, financial institutions, FinTechs and BigTechs have been focusing on developing mobile-apps and even onboarding solutions that do not require going to a branch to open an account. The Covid pandemic has also accelerated financial institution's activity in providing less physical points of interaction with the clients (commercial bank branches).

Regarding the physical infrastructure needed for making payments in stores, in many cases, the merchants' interest in providing the necessary infrastructure (POS) for making electronic payments when purchasing goods and services hasn't been high, due to the following barriers:

- the commissions charged by financial institution from merchants for receiving electronic payment when their customers made card payments, which could be both fixed or variable (a percentage of the transaction value, varying between 1% and 6%). The sensitivity/elasticity of POS demand to price is higher the smaller the profit margin and the smaller the client base of the merchant (which, in rural areas, is the case, as population density is low);

- inertia in the habits of consumers and merchants which, in the short term, can lead to demotivation (the habit of consumers to pay in cash, which makes it necessary to go to an ATM to deposit it in the account, which requires having easy and quick

access to a bank or an ATM; it is also necessary to keep a certain amount in cash, to be able to give change. Although the accumulation of cash increases the risk of theft, cash is still perceived to be more convenient for carrying out transactions quickly, especially for small amounts). Therefore, the degree of adoption of card payments and their usage by customers influences the interest of merchants to provide the infrastructure needed for clients to be able to make such payments. On the flip side, the fact that not all merchants accept card payments influences the interest of customers in them;

- liquidity management, because the money paid by customers with cards is transferred into the merchant's account in up to a few days after the payment is made by the customer;

- the informal economy and the intention to not pay taxes in proportion to the total monthly sales value.

A possible solution could be the granting of credit line facilities for working capital, loyalty schemes (points, cash back type), the provision of POS terminals at no cost or offering a significant cost reduction by payment institutions (for which, as a result of the increase in the customer base and/or account usage, the marginal cost would be reduced).

A legal initiative of the Romanian government to encourage the existence of such infrastructure (POS) is in place. Whereas previously the Romanian law compelled merchants with a yearly balance sheet turnover of over 10.000 euro (the equivalent in lei) to have a POS terminal, which enables card payments by consumers, that limit has been increased to 50.000 euro since 2018, which is still in place currently, in 2022. But, according to the legislative measures provided for in the Government Ordinance no. 16/2022, starting with 2023, the limit will be decreased to 10.000 euro again for the merchants' obligation to accept debit, credit or prepaid cards as means of payment, through a POS terminal and/or other modern acceptance solutions, including applications that facilitate the acceptance of electronic payments. This obligation starts with the next trimester after the merchant has exceeded the 10.000 euro threshold from the current year receipts. This, in fact, combined with inflation, has lowered the level from which POS infrastructure is enabled so that that consumers can use means of payments other than cash.

The costs of purchasing and installing payment terminals used by economic operators are now the responsibility of the card accepting institutions (payment service providers, which are usually banks), according to the Government Ordinance no. 99/2000. In other words, the cost of providing the relevant infrastructure is paid by financial institutions. The installation is done at the request of economic operators and/or public institutions, based on the contracts concluded for this purpose, in all the places indicated by them.

Also, following the re-examination, the obligation for those merchants with a turnover of over 10,000 euros per year to issue cash (similar to withdrawing cash from ATMs, but for low limits, of only 200 lei daily and only if the client purchases something else from the store), upon request, to customers was removed, the text

being modified so that the issue is made at the merchant's discretion. This modification diminishes the potential impact of the measure on the strategic objective of increasing financial inclusion and, for this reason, it was better if the previous proposed conditions would have been maintained (even, in our opinion, with the option to increase that limit by choice), although some retailers may still wish to offer this service in order to increase customer loyalty and/or customer satisfaction.

The law stipulates that the cash advance is clearly marked on the receipt and cannot exceed the amount of 200 lei. Cash advance transactions are assimilated to cash withdrawals from ATMs, and transaction fees are set according to the contracts in place between the parties (merchants and banks), but, for consumer protection reasons, merchants may charge the cardholder a commission that cannot exceed 1% of the value of the advance granted. The cash-back service that merchants can provide, according to the law, is distinctly featured on the receipt provided to the customers. They must display in a visible place the sign regarding the provision of this service, as well as information regarding the costs of the service.

These nationally regulated measures (POS obligation and cash-back option) are likely to have positive implications in the bankarization of monetary operations, the possibility of easy tracking of banking operations and the taxation of the incomes of economic agents involved in acts of trade and provision of services, as well as the streamlining of commercial transactions.

In our opinion, an efficient solution would be the development of virtual POS which can be used, not just the physical equipment, and the virtual one could be in the form of a mobile application, for example.

For the payment services market to be efficient, payments have to be fast (instant), there should be a wide range of choices of payment services (by encouraging fair competition between financial institutions and FinTechs by ensuring a lower entry barrier for the latter), without compromising on consumer protection (compliance), which needs to be guaranteed.

It is proven that Fintech increases financial inclusion, reducing the gap between urban and rural areas and between the inclusion of poor people and higher income population, yet, surprisingly, it was shown that it didn't have an impact on the gender gap for the datasets used (Tok, Heng, 2022).

Therefore, while encouraging competition between financial service providers is likely to have some positive effect on financial inclusion, it is obvious that authorities should specifically target improving the access to financial services of the vulnerable groups (women, the poor, the aged population) digitally, as this is the more cost-efficient option to serve the populations that wishes to be on-boarded, while also considering the social value of cash for the categories that can't use the other option and not planning to become a cashless economy.

In order to increase the level of financial inclusion, although there are initiatives that support this process, the efforts are fragmented and uncoordinated. The authorities could consider setting up a multi-stakeholder working group to

prepare an inclusion strategy adapted to the situation in Romania, reflecting a digital approach, to address the identified gaps. Committee on Payments and Market Infrastructures (2020).

Another potential development would be, in our opinion, a higher usage of European grants for financial innovation that Romania could receive on the basis of well fundamented grant requests. Not using those funds that can be provided through several financing lines is a missed opportunity, especially since such programs favor addressing the needs of vulnerable target groups, such as the elderly and women. For example, a financial education and financial literacy European-funded program for women has implications beyond the defined target group, as women are involved in the education of their children and may therefore be an amplifier in reaching a wider public.

Taking into consideration the historical low absorption of EU funds by Romania (where Romania is placed last for the 2014-2020 period, compared to the other EU member states), there is another recent change that can be taken advantage of: international partnerships are favoured and encouraged but, more than that, any institution that is interested can also consult the list of active projects and become co-partners in any project that is in the implementation phase (with the approval of European grant applicant's approval, who is the project leader, of course), whereas before the EU only allowed participation in such projects if all details and participants were defined ex-ante. This facility could be accessed by:

- financial institutions (for developing financial innovations, digital identity, development of innovative client on-boarding solutions, including but limited to biometric authentication, RegTech and SupTech applications, including in projects referring to stimulation and supervision of the digitalization process, lowering the gap in financial education, financial inclusion, digital competencies that have an increase in competitiveness, efficiency or cost lowering component);

- but also by national authorities of member states in projects that are of interest to them, (for developing and supervising financial innovations, Innovation Hubs, supervision of the on-boarding process, improving access and analytics of data related to AML or cyber-protection, which could or could not include artificial intelligence solutions, financial inclusion programs, financial education, digital competencies, supervision of digital finance processes, adapting the UE framework to the national context, association with the ECB in their CBDC project – the digital euro, partnering with ENISA for cyber-security and cyber-resilience projects).

The examples provided are obviously not exhaustive, but mainly represent opportunities for engaging.

The EU member states intend to foster collaborative economy, through public-private partnerships and projects, harnessing the benefits of the knowledge economy.

Participation to consultations either actively or for idea sharing on the working groups available on the EU Platform for durable finance or the International Platform for durable finance could be a useful initiative. Also, we view the financial institutions' participation in the consultation process, taking part in the Innovation

Hub provided by the National Bank of Romania by openly discussing ideas and business models with representatives of the national authority and, potentially, with other market participants.

We believe that a more comprehensive use of such funds by developing countries are necessary and useful for Romania's development. Such European funds are necessary for Romania's development, in lowering the gap in financial education, financial inclusion, digital competencies, competitiveness.

While technology is generally viewed as the best answer to the financial inclusion problem, in order to ensure a durable development (taking the ambient pillar into account as well, not not the social and the economic ones), sustainable payment innovation solutions should be pursued.

Romania's Eco-Innovation Index score ranks it the 25th in European Union, with below average results on all the indicators, showing that institutions and the general population have low environmental awareness, while there is no strategy that directly targets the circular economy. The institutions' decision related to funds allocation are mostly made to comply with the regulation requirements regarding their environmental practices, therefore the authority's role is to monitor the proper management of environmental performance, while also not placing additional regulatory burdens on financial institutions, which may hinder competition.

Conclusions and recommendations. Given the regional disparities and the very high costs of providing a dense physical infrastructure across the country, technology is the most accessible way to increase financial inclusion, from all points of view: speed, simplicity and cost.

Digital technologies have spread rapidly worldwide, enabling innovations in the provision of financial services, affecting both payment services and the market infrastructure. Technological innovation in the financial field has the potential and ability to facilitate access of financial services for certain target groups, such as female entrepreneurs, the rural population or people with disabilities, but yet, not all members of these groups are able to access and use them, while some may not want to. Therefore, although the process of digitalization of payments has multiple benefits, it can not be fully implemented in Romania until financial exclusion, especially in rural areas, is addressed.

Operational improvements from the use of modern technologies enable financial institutions to increase their customer base and offer more accessible products and services and/or a better customer experience. Therefore, both FinTechs and financial institutions will contribute to increasing financial inclusion, through partnerships or by adapting financial service offers to the Romanian market.

We consider digital technology alone to not be enough to fully solve the financial inclusion problem. There must be a well-developed payment system, a sound physical infrastructure, adequate regulations and consumer protection safeguards, but financial services must be tailored to the needs of disadvantaged groups, such as women, low-income families and users receiving financial services who may lack numeracy or even literacy.

Overcoming some of the barriers to financial inclusion can be done through specific programs that address certain categories of the population, in specific areas, that need support and intervention to eliminate gaps in digital literacy and the level of financial education.

Eliminating cash completely is not recommended as it would disproportionately affect the poor and elderly who rely on this means of payment, which links it to financial exclusion - there is also a social value to cash, for those who do not have smart devices too use apps for making payments.

Mobile payments represent a real opportunity to increase financial inclusion in Romania, but special attention must be paid to preventing cybercrime. An important part of the population in Romania is not prepared for making digital payments in safe conditions, not having the necessary knowledge to have a "basic cyber hygiene". In our opinion, strategic planning should be done by authorities in order to address cyber risks:

- on the offer side of payments (of payment systems and system participants, critical or non-critical and interdependencies between participants in the national and global financial ecosystem) for the limitation of which common standards related to cyber security for all participants are needed, their application by all participants in the ecosystem, respecting the principle of proportionality;

- on the demand side of payments (the population and companies that use them): where we stress the need to prioritize financial education (and the digital literacy of all users), possibly through various programs, even funded by the state, and possibly through digital solutions (applications) aimed at independent information about new products and services, benefits, risks and practices to limit the materialization of risks. We believe that national cyber risk awareness program could be useful, but the presentation of information must be done in such a way as not to discourage the population from making digital payments.

The creation of digital identity and the strict identification of customers, for example through biometric identification, is the first step in increasing financial inclusion from the perspective of digitization, having a positive impact also in the prevention of fraud. Digital identification systems are supported by laws, policies and regulations that promote trust in digital payments, ensuring data confidentiality and security, limiting potential authorized access and ensuring provider accountability. The enabling legislation and regulations for the digital identification system itself, but also laws and regulations regarding data protection, e-government, e-commerce and transactions, AML, digital identification systems need to be harmonized worldwide, due to the international nature of payment services.

National authorities have to identify the balance between the risks and the results of financial inclusion measures and technologies, in order to reach both financial inclusion objectives and stability, as well as to develop the policy and regulatory framework regarding financial inclusion, ensuring the harmonization of regulation at national and international level, through a close collaboration between nations.

Public-private partnerships for increasing financial inclusion should be encouraged, as neither actor's uncoordinated pro-inclusion measure can be as efficient as when combined.

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