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Application of financial innovations in the banking sector of Serbia

Vera Zelenović
University of Novi Sad, Faculty of Economics Subotica, Subotica, Serbia
https://orcid.org/ 0000-0003-1012-1773
Jelena Zelenović

The Research and Development Institute for Artificial Intelligence, Novi Sad Affiliation, Serbia
https://orcid.org/000-0002-9162-3857
Miloš Đaković
University of Novi Sad, Faculty of Economics Subotica, Subotica, Serbia
https://orcid.org/0000-0003-0167-4026
Milica Inđić
University of Novi Sad, Faculty of Economics Subotica, Subotica, Serbia
https://orcid.org/ 0000-0002-0780-7654

Abstract
Background: Innovations in the domain of banking services in the household sector are primarily related to easier access to a current account and new payment methods, which are practical and simple for the consumer. Financial innovation and financial development are positively related, and their impact grows over time. Constant changes in client demands, and constant pressure to reduce costs and increase efficiency leave banks with no choice but to apply modern technology.
Purpose: This is to point out the importance of financial innovations and their application in the banking market of Serbia. This is all the more so, as the level and growth of real wages in Serbia, as well as the increased inflationary pressure since the time of COVID-19, make these services for bank clients in Serbia much more expensive and inaccessible, due to differences from clients in developed markets.
M**ethodology/approach**: Materials from scientific journals and primary sources were used in the presented research, using the method of content analysis. The presented research was done on the basis of official data available on the National Bank of Serbia's website, which cover a time series of five years. An appropriate statistical regression method was applied.
Findings/conclusions: The conducted research showed that financial innovations have adequate application in Serbia as a developing market**.** The Covid-19 pandemic forced the process of digitization and the adoption of financial innovations to accelerate, and judging by the results of the research, this process is irreversible.
Limitations/future research: Future research could address the value of the transactions made in the same period. Is the increase in the value of financial transactions due to an increase in the number of users or an increase in the volume of transactions? Another question would be whether the inflation factor is noticeable in the increase in the financial value of transactions.
Certain limitations may appear in future research, related to a real reduction in wages, or even job loss, and that is to what extent are bank clients ready to continue using existing financial innovations, i.e. buy new innovations, at the expense of this reduction.

Keywords
financial innovation, bank, emerging markets, Serbia

Introduction

The financial sector plays a key role in economic growth, dealing with the distribution of scarce economic resources where needed. Financial development can be described in terms of financial policy, all those factors and institutions, which, through financial intermediation, influence the increase of effectiveness and efficiency in business operations on the financial market. Financial innovations can serve to improve the financial

system, as well as all necessary institutional and organizational improvements. Thus, financial innovations together with quality improvement have a driving role in financial development.

Interest in financial innovation has been growing in recent years, for the simple reason that more innovative companies have a higher growth rate. The main role of innovation is to help financial institutions to improve their business efficiency, increase their market share, and maintain a leadership position in accordance with market requirements (Alawi et al., 2022). The fact is that many successful and modern companies, such as Apple and Uber, have completely restructured their businesses by applying advanced innovation, and it can be said that their innovations are portrayed as disruptive because they affect the system where the development system exists (Palmié et al., 2020). Various methods based on IT technologies and financial innovations are used to manage systemic financial risk, all in the function of controlling all other risks that banks face in their work (Rehman et al., 2019).

The continuous improvement of financial innovations also leads to an increase in the wealth of the bank's shareholders. It is the world economic crisis of 2007/2008 that made global financial stability fragile, precisely because of the risky innovations that had a comprehensive application in banks. Like innovations in the industrial sector, financial innovations are characterized by high risk, accompanied by expensive investments, specific assets for companies, and long-term returns. All of the above is one of the reasons for the disagreement between shareholders and stakeholders on the one hand and managerial ambitions on the other, which are focused on maximizing the bank's profits (Zouari & Abdelmalek, 2020). A question that is constantly on the agenda of academics and managers is how to value innovation, especially when it comes to the very beginning of development, either of a product or a service. The basic motive lies in the fact that any improvement in decision-making regarding innovation affects the company's performance (Dziallas & Blind, 2019).

Investing in financial innovation puts financial risk management in the focus of banking activities. An essential part of the innovation life cycle is risk management, which helps banks to face uncertainty.

Regarding the relationship of ownership and innovation, banking entities maintain trade relations with the companies in which they invest, approving activities and loans. This puts banks in an uncertain situation when it comes to the potential gain from investing in research and development. In addition, the presence of banks encourages companies to increase their capital through debt, so the greater the debt, the greater the risk and the greater the importance of current debt in investment decisions. One of the risks when it comes to innovation is short-term investments, which can slow down investments in research and development that are mostly long-term (Asensio-López et al., 2019).

In the global market, financial innovation represents a strategic challenge for banks that want to maintain their competitive position. This very fact confirms the key role that financial innovations play in achieving economic growth and creating new value, by influencing the change in the structure of existing financial products or creating new products and services (Zouari-Hadiji, 2021).

1. Literature review

Innovation is the engine that drives companies and gives them a comparative advantage in the competitive market environment (Dani & Gandhi, 2022).

Banks are trying to reduce costs and increase revenues and operational efficiency to maintain their competitive position. They are also very interested in maintaining relationships with their customers through CRM (Rahman et al., 2021). A significant role in all of this is played by financial innovations, which are precisely the function of realizing and improving the aforementioned.

By developing financial innovations, banks influence the improvement of the quality of their work, which improves their position. For example, banks innovate new financial instruments, such as new types of securities, new forms of mortgage lending, new tools when it comes to processing financial transactions, or new organizational forms in banking, such as Internet banks. The diffusion of financial innovation is of great importance for ensuring corporate returns when investing in innovation (Khraisha & Arthur, 2018).

According to Wang and Tan (2021), the positive effects of financial innovation and institutional progress make the financial system reduce the number of asymmetric information, which affects the strengthening of market compliance, helps intermediaries who deal with monetary operations through agreements, simplify

business and work on improving market competitiveness.

Regardless of how widespread financial innovation is at banks, most of them still have very limited knowledge of the risks involved in launching new products and services. Some banks, mostly smaller ones, do not express their willingness to adopt new mechanisms for risk management, which would enable them to adequately monitor, evaluate and manage them when it comes to financial innovations (Zouari-Hadiji, 2021). Lotto (2019) pointed out that the capital adequacy ratio has a positive correlation with the operational efficiency of banks and reduces the risk of moral hazard between shareholders and debt holders.

When it comes to developing economies, they are characterized by insufficient institutional development, developed environmental awareness that is still in its infancy, but also great market uncertainty, constant legislative changes, as well as a rapidly developing business environment, which gives the governments of those countries greater discretionary power (Wu et al., 2022). All these mentioned characteristics can be fertile ground for the development and application of innovations.

As Khan et al. (2020) stated in their research on China, the government has focused on financial innovation in its activities, which would overcome the challenges it faces, all in the function of developing a strong financial market, with the aim of encouraging economic growth. The authors further state that technological innovation is a leading factor driving development in the financial sector, as well as technological inventions, which should be far more efficient because they could subsidize the future development of the financial sector. It can rightly be stated that financial innovations are closely related to financial development and that this relationship is positive and its influence increases over time.

In the work of another group of authors (Wang et al., 2020), it is believed that advanced technologies and their development significantly worsen the level of risk that banks assume. The deterioration effect is primarily related to the decrease in asset quality. This effect is especially noticeable in banks with larger assets, banks with low operational efficiency, as well as those banks where income is primarily based on interest.

According to the research (Yao & Song, 2021), it was determined that during the observed period, there was a reduction in costs related to information, for all participants in the transfer, all thanks to the application of advanced technology. There has also been an increase in transparency when it comes to market information and a reduction in EC (economic capital).

Looking strictly theoretically, the characteristics of the financial market, such as information asymmetry, transaction costs, but also market segmentation, mean that access to financial markets is limited for poor people. This is precisely the key imperfection of the financial market. However, with the emergence of fintech in finance, it has become possible to overcome this imperfection and enable financial inclusion for the poor and give them a chance to get out of poverty (Demir et al., 2022).

In the research of the European Central Bank (2021), it was shown that especially those over 65 years of age use a limited number of payment methods, with preferences for more traditional means such as cash and debit cards. Younger participants use mobile payment methods more often than older ones. There are also geographical differences, with the more widespread use of mobile payment options in technologically mature markets, particularly in Estonia, Finland, and Ireland. Participants had different reasons for not having enough bank funds. The main reason is usually related to unfavourable life circumstances, lack of permanent income, reluctance to take on debt when it comes to finances, personal bankruptcy, emotional barriers when it comes to trusting banks, reluctance to use the internet and digital banking tools, as well as negative past banking experience and lack of technical skills.

Research conducted in Turkey (Gündoğdu & Taşkin, 2017) aimed to examine the relationship between the profitability of the Turkish banking system and financial innovations: online banking, telephone banking, and credit cards. The total net profit in the Turkish banking system is considered as an independent variable by quarter, and online banking, telephone banking, and credit cards are considered as dependent variables, while the regression method was used.

Also, another study (Kamau & Oluoch, 2016) dealt with the effect of innovations - mobile payments, the Internet, ATMs, credit cards, and agency banking on the performance of commercial banks in the period from 2012 to 2015, using research correlations.

From the aspect of using the Internet and mobile phones, prerequisites for financial innovations, the most represented are students, who are mostly without income RZS (2022), and

as such, they are not the primary focus of banks. On the other hand, according to Laukkanen (2010), the financially desirable target group faces various types of resistance to financial innovation, such as usage, value, risk, tradition, and prior experience.

One study, (Frame et al., 2018) gave a chronological account of the application of financial innovations, where it was stated that debit cards were implemented in the nineties, and online banking in the two thousandths, which is characteristic of developed markets. In another study, Iman (2018) dealt with the application of mobile banking, based on the use of modern mobile devices, with the help of wireless internet. Innovation in emerging markets often blurs the line between process innovation and product innovation (Anand et al., 2021). Mtar & Belzreg (2021) showed in their research that there is a linear relationship between economic growth and financial development, as well as between innovation and financial development. Research conducted in Turkey (Gündoğdu & Taşkin, 2017) aimed to examine the relationship between the profitability of the Turkish banking system and financial innovations: online banking, telephone banking and credit cards. Another study (Kamau& Oluoch, 2016) dealt with the effect of innovations - mobile payments, the Internet, ATMs, credit cards, and agency banking on the performance of commercial banks.

2. Financial innovation in banking

Financial intermediation has undergone dramatic changes in the last 30 years, which have been mainly influenced by technological changes, as a direct consequence of advances in telecommunications, information technology, and financial practices. Such progress influenced the development of financial innovations, which in turn influenced changes in financial products and services, as well as production processes and organizational structures. Financial innovations as such have greatly influenced the reduction of costs and risks, and led to the improvement of social welfare. This, of course, does not mean that every financial innovation proves to be successful in the market, as many fail due to fundamental flaws, be it in design or simply being replaced by better alternatives. Innovations in the domain of banking services in the household sector are primarily related to easier access to a current account and new payment methods, which are practical and simple for the consumer. Debit cards, which work on the principle of connecting an ATM to a bank account, from which payment can be made, were widely distributed during the 1990s. The 2000s brought online banking, which offered clients a wide range of possibilities, such as checking account balances and the ability to pay using an electronic bill, which contributed to its widespread use. Debit cards are attractive financial instruments that operate on the principle of "pay now" and are linked to a current account, whereby transactions are carried out using online (PIN-based) methods (Frame et al., 2018).

As companies and individuals quickly embraced the Internet in the late 1990s, banks followed suit by quickly providing them with online access to their accounts. DeYoung (2005) believes that the first banking websites started operating in 1995 and that by 2002, almost half of the total number of American banks were transacting through websites. Today, practically all commercial banks in the USA operate in this way.

The advent of smartphones has allowed mobile banking and shopping to increase, and financial innovations based on information and communication technologies (ICT) have become an integral part of our lives (Dahlberg et al., 2015).

A mobile payment method is any payment that uses any mobile device (phone, tablet, laptop etc.) to pay or transfer money. Its key advantage is that it has the ability to use wireless infrastructure, and the way of use makes the factor of space and the factor of time become irrelevant (Iman, 2018). An increase in the number of users of mobile payment services leads to an increase in the reliability of service use (direct network externality). Increasing the number of sellers available through the mobile payment service will have a direct, positive consequence, that consumers value the mobile platform more (Leeet al., 2019). The combination of data with digital innovations opens up opportunities for new business opportunities, especially when it comes to financial services, where clients are the focus of all business decisions, and all available information serves to improve clients' knowledge (Grassiet al., 2022). Databases and modern IT technology have become the most important comparative advantage of banks in the financial environment (Li & Xu, 2021). Traditional banks were forced to respond to growing competition by accelerating the adoption of digital technologies. This resulted in the opening of its own digital banks, in order to keep pace with the growing expectations of clients (Stulz, 2019). Every successful company will be a digital company one day.

Since the end of the 90s, financial institutions have offered internet banking, which provides access to their product portfolio. In addition to the continuous modernization of internet platforms, banks are also focusing their efforts on opening new channels of access and distribution of their products and services through mobile devices. New applications for smartphones or tablets with an attractive interface and simple designs, based on user experiences from social networks, make banking transactions very simplified and accessible to every client (Cuesta et al., 2015). Digital transformation is conditio sine qua non for banks. Constant changes in client demands, and constant pressure to reduce costs and increase efficiency, leave banks with no choice but to apply modern technology.

The COVID-19 pandemic has had a decisive impact on the digital transformation in banks, creating the necessity for banks to communicate with their customers through digital channels, via platforms and applications, which has enabled social distancing to be respected. Thanks to this, the number of digital users in the EU has increased by 23% since the beginning of the pandemic (Fernandez et al., 2020).

3. Research methodology

The subject of research in this paper is modern financial innovations and their application in the banking sector of Serbia. The application of financial innovations lags in developing markets compared to developed financial markets. The reason should be sought not only in the level of development of the financial markets, but also in very low wages, specifically in Serbia, and therefore the willingness of bank clients to withdraw money for specific bank service. It is not only about the service, but also access to the Internet and the possession of mobile phones, and later smartphones, which are necessary tools in order to use some of the financial innovations offered by banks. Also, in our country, the internet and mobile phones were first accepted by younger generations, and only later by the age group who de facto have financial resources at their disposal.

The purpose of the research is to point out the importance of financial innovations and their application in the banking market of Serbia. This is all the more so, as the level and growth of real wages in Serbia, as well as the increased inflationary pressure since the time of corona, make these services for bank clients in Serbia much more expensive and inaccessible, due to differences from clients in developed markets.

The problem that this research wants to point out is that the very small average nominal wages, expressed in euros in this research, are a major limiting factor for the adoption of new financial innovations. Also, the reduction of real wages under the pressure of inflation and increasingly difficult living conditions can lead to a slowdown in the acceptance of existing financial innovations in the portfolio of banks.

The following hypotheses were tested in the paper:

H1: There is a relationship between wages and e-money account number of users

H2: There is a relationship between wages and online payments – number of users

H3: There is a relationship between wages and telephone payments – number of users

H4: There is a relationship between wages and mobile payments – number of users

The presented research was done on the basis of official data available on the National Bank of Serbia (hereinafter NBS) website, which covers a time series of five years and two quarters from the current year, 2022. An appropriate statistical regression method was applied in this research, which was applied to investigate the relationships between the mentioned financial innovations and the average salary in Serbia. Generally speaking, the rise of knowledge-based economies presents challenges to the development of local markets. The pace of the emergence of new technologies requires lifelong learning. Those regions that fail to create an environment that helps their citizens connect and adapt will end up in a situation where their population is economically and socially disconnected. Innovation in emerging markets often blurs the line between process innovation and product innovation (Anand et al., 2021). Mtar and Belzreg (2021) have shown in their research that there is a linear relationship between economic growth and financial development, as well as between innovation and financial development.

The situation is similar in the banking market of Serbia. Relatively slow economic growth, as a result of ten-year sanctions in the nineties, at the beginning of the twenty-first century brought about a complete restructuring of the country. Independent development of the financial market, and especially banking market, was not possible, so the state opened the door wide to foreign capital. This was supposed to mean an accelerated modernization of the country, but it was impossible

to catch up with the developed markets in terms of time, technology, and finance. Hence, the application of modern financial innovations in banking has a decades-long delay.

From the perspective of legislation in the Republic of Serbia, progress has been made when it comes to financial innovations in banking, with the adoption of a specific law in the field of digital identities. It is the Law on Electronic Documents, Electronic Identification and Trust Services in Electronic Business, which entered into force on October 27, 2017. The new law is a direct consequence of the digitization process in Serbia, with the aim of enabling and encouraging faster and more efficient business and reducing business costs, developing a market of trusted services, modernizing, and thereby facilitating the work of public authorities and business entities, including banks. This law regulates matters in accordance with the provisions of the European Union Regulation on Electronic Identification and Trust Services in Electronic Transactions (eIDAS).

The basic condition for the adoption of financial innovations in Serbia is access to the Internet by the banks' clients.

When it comes to the number of computers in households, according to the Republic Bureau of Statistics of Serbia (hereinafter RZS) (2022) there is a large gap in terms of having internet connection according to the level of household income. Internet access is mostly owned by households with a monthly income exceeding 90,000 RSD (99.6%), while the share of households with an income of up to 30,000 RSD is only 33.1%. Regarding the method of accessing the Internet (types of connection), of the total number of households that have an Internet connection, 90.9% of households, have a fixed broadband connection, while 74.4% of households have a mobile broadband Internet connection.

In accordance with the NBS (2019) research for other access channels, in Serbia, there has been a continuous growth in the volume and value of payment transactions via the Internet, especially in local currency. The largest number of such payments are made via cards, an indication that consumers are increasingly feeling confident in using this type of payment instrument and access channel.

Table 1 shows the most represented financial innovations when it comes to banking products and services in the Serbian financial market. We see that the expansion of the application of banking innovations intensified in 2017, when certain legal regulations were adopted, with the aim of faster digitalization of the country. Each of the presented innovations shows a growth trend, from the aspect of the number of users, except when it comes to electronic money, which has had a downward trend since 2019.

Table 1 E-money account, telephone payment, online payment, mobile payment and wages from 2017 to 2022.

Year	E-money account - number of users	Telephone payment - number of users	Online payment - number of users	Mobile payment - number of users	Wages (average for the period, in EUR)
2017	35.533	201.143	1.935.687	1.126.930	394,5
2018	45.833	224.970	2.465.904	1.426.825	419,8
2019	48.604	264.226	2.748.395	1.702.767	466,0
2020	46.155	304.124	3.156.041	2.162.362	510,9
2021	45.448	356.151	3.493.020	2.840.518	562,2
2022-I	44.589	365.085	3.568.783	3.129.600	612,7
2022-II	43.803	381.181	3.624.525	3.224.993	627,9

Source: the authors based on the NBS statistics

4. Results and discussion

It is visible from Figure 1 that until 2019, the electronic money account had a growing trend, but after that period it would have a continuous decline. The reason should be sought in new financial innovations, which have proven to be more operative in practice, and which clients have accepted at the expense of electronic money accounts.

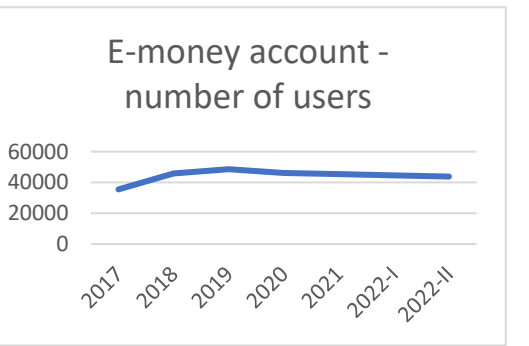

Figure 1 Number of electronic money users
Source: the authors

As for telephone payments, Figure 2 shows a growing trend from year to year. A particularly large jump in the number of users was recorded in the year of corona, 2020 and a year later, 2021. The growth trend continued in the first two quarters of 2022, but not with such a pronounced increase in the number of users.

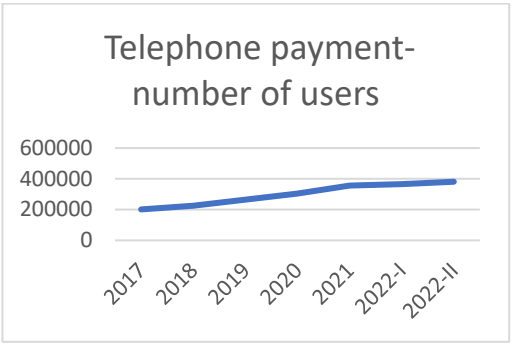

Figure 2 The trend in the number of telephone payment users
Source: the authors

Online payment, shown in Figure 3, which uses the Internet as a channel, has provided users with wide opportunities for contactless payment, so its growth trend is quite understandable. This type of payment has its full affirmation, which results in a large increase in the number of users, in the year of corona 2020 and the year after. The growth trend continued during the first two quarters of 2022.

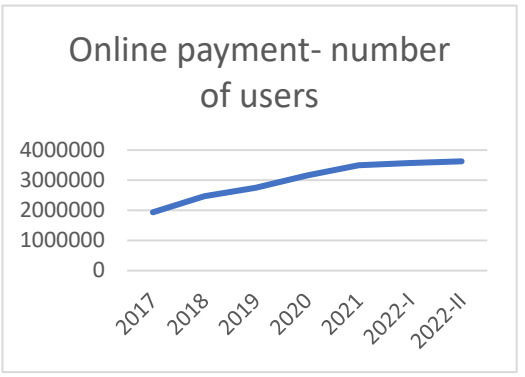

Figure 3 Number of online payment users
Source: the authors

When it comes to financial innovations, mobile payment, as shown in Figure 4, as the most advanced form of payment, offering the possibility of using all mobile devices (phones, tablets, laptops) as well as wireless internet, has a certain growth trend of its users. After the rapid growth during the time of corona, as this form of payment makes the time factor and the space factor irrelevant, the number of users continues to grow during the first two quarters of 2022.

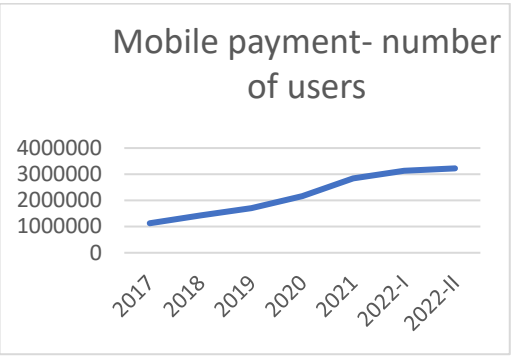

Figure 4 Number of mobile payment users
Source: the authors

Figure 5 represents the relationship between electronic payment and estimated earnings. The ratio is important because it shows how many bank clients in Serbia are ready to allocate money for this banking service, in an already small consumer basket. We see that this ratio shows a decline from 2020, although the average nominal salary expressed in euros has an upward trend. It just means that bank clients preferred to turn to other banking innovations, which they considered to be more operational and efficient.

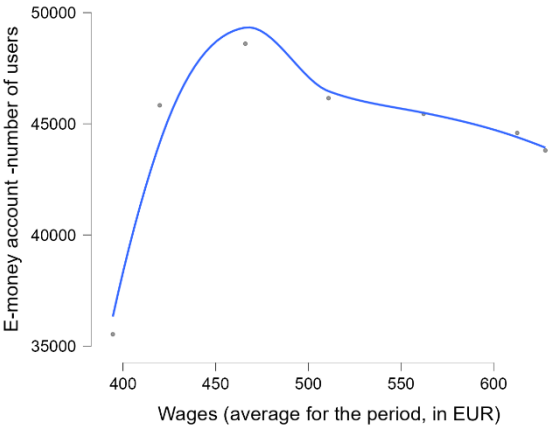

Figure 5 Relationship between e-money and wages
Source: the authors

Figure 6 shows the relationship between mobile phone payments and the average nominal salary. We can see that the curve shows continuous growth, which continues even after the time of the corona, which means that the banks' clients are ready for this service to allocate additional funds from their inflation-affected average salary and to set aside money not only to pay for the service to the bank but also to buy a mobile phone.

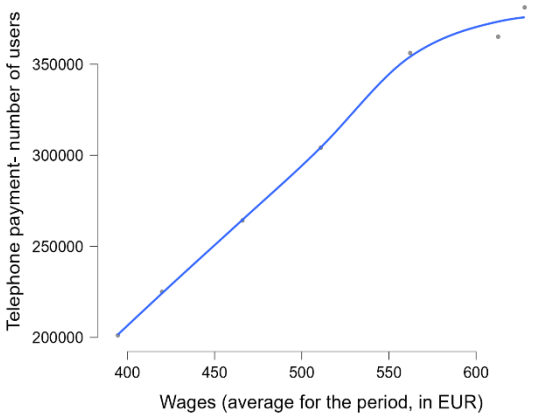

Figure 6 The relationship between mobile phone payments and wages
Source: the authors

Figure 7 shows the relationship between online payments and earnings. The trend is continuous growth, the banks' clients are ready to pay for this service to the bank, which enables them to deal with payment transactions themselves, without going to the bank, regardless of the real decrease in wages due to inflationary pressure.

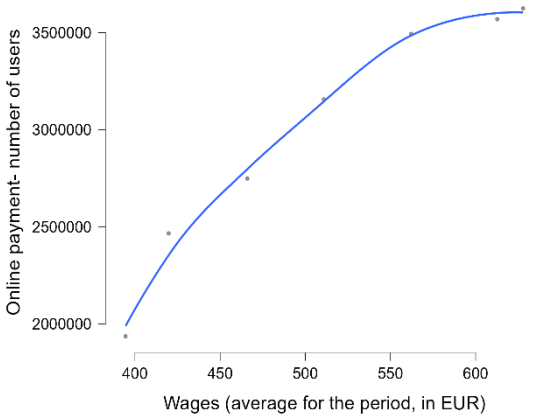

Figure 7 Relationship between online payment and wages
Source: the authors

Figure 8 shows the relationship between mobile payments and earnings, with a steadily increasing trend over the observed period. Clients obviously believe that this payment service, which assumes the possession of a mobile device (smartphone, tablet, laptop) and wireless internet, perfectly suits their needs, and regardless of the continuous decrease in real earnings, (regardless of the fact that nominal earnings are increasing), they are ready to allocate money for this type of service.

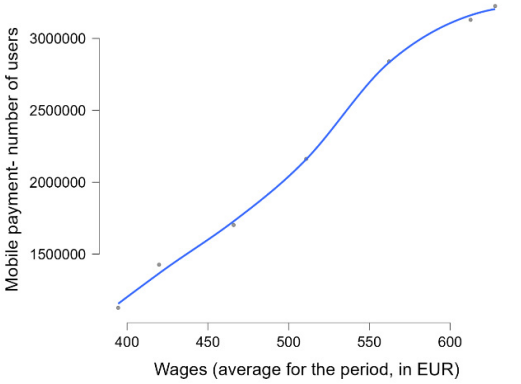

Figure 8 Relationship between mobile payment and wages
Source: the authors

In the tables that follow, a statistical presentation is given, through regression, which investigated and showed the relationship between wages and the presented indicators: e-money account number of users, online payments- number of users, telephone payments- number of users, and mobile payments- number of users.

Table 2 Relationship between wages and e-money account number of users

	E-money account number of users				
	Beta Coefficient	R^2	F	*t*	*p*
Wages	14.218	0.099	0.551	0.742	0.491

Source: the authors

The regression was used to test if wages carry an impact on the e-money account number of users. The variable wages were regressed on the variable e-money account number of users. Wages predicted e-money account number of users F (5, 1) = 0.551, p= 0.491, which indicates that wages do not play a significant role in shaping the e-money account number of users. Moreover, the R^2 = 0.099 depicts that the model explains only 9.9% of the e-account users.

This proves hypothesis H1.

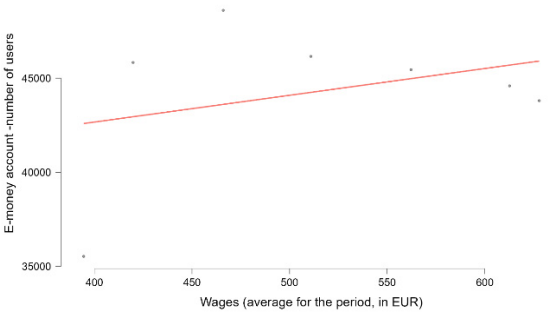

Figure 9 Relationship between wages and e-money account number of users
Source: the authors

Graphical representation of the same parameters from the previous table is presented in Figure 9.

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Table 3 Relationship between wages and online payments-number of users

	Online payments- number of users				
	Beta Coefficient	R^2	F	*t*	*p*
Wages	6734.642	0.930	66.711	8.168	<0.001

Source: the authors

The regression was used to test if wages carry an impact on online payments-number of users. The variable wages were regressed on variable online payment users. Wages predicted online users F (5, 1) = 66.711, p< 0.001, which indicates that wages play a significant role in shaping the number of users for online payments. The R^2 = 0.930 depicts that the model explains as much as 93% of the variance in the number of online users.

This proves hypothesis H2.

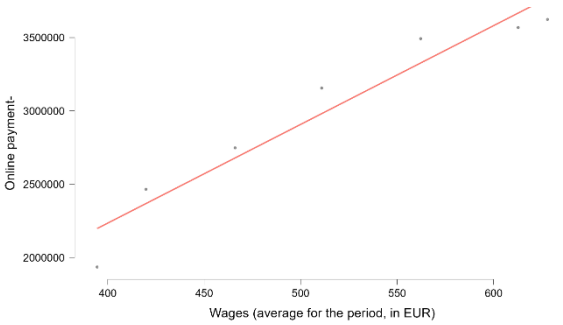

Figure 10 Relationship between wages and online payments- number of users
Source: the authors

Graphical representation of the same parameters from Table 3 is presented in Figure 10.

Table 4 Relationship between wages and telephone payments- number of users

	Telephone payments- number of users				
	Beta Coefficient	R^2	F	*t*	*p*
Wages	771.448	0.980	242.078	15.559	<0.001

Source: the authors

The regression was used to test if wages carry an impact on telephone payments-number of users. The variable wages were regressed on variable telephone payment users. Wages predicted telephone users F (5, 1) = 242.078, p< 0.001, which indicates that wages play a significant role in shaping the number of users for telephone payments. The R^2 = 0.980 depicts that the model explains as much as 98% of the variance in the number of telephone users.

This proves hypothesis H3.

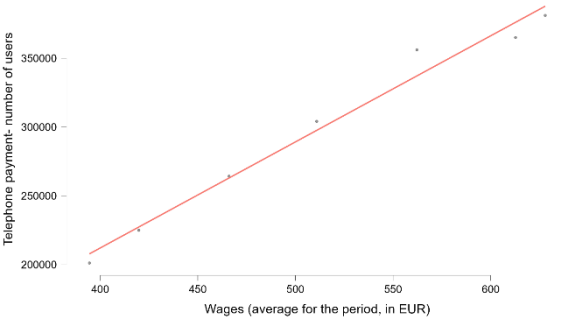

Figure 11 Relationship between wages and telephone payments- number of users
Source: the authors

Graphical representation of the same parameters from Table 4 is presented in Figure 11.

Table 5 Relationship between wages and mobile payments-number of users

	Mobile payments- number of users				
	Beta Coefficient	R^2	F	*t*	*p*
Wages	9198.246	0.990	491.712	22.175	<0.001

Source: the authors

The regression was used to test if wages carry an impact on mobile payments-number of users. The variable wages were regressed on variable mobile payment users. Wages predicted telephone users F (5, 1) = 491.712, p< 0.001, which indicates that wages play a significant role in shaping the number of users for mobile payments. The R^2 = 0.990 depicts that the model explains as much as 99% of the variance in the number of mobile users.

This proves hypothesis H4.

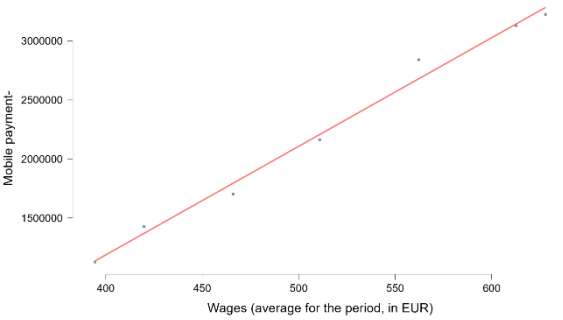

Figure 12 Relationship between wages and mobile payments- number of users
Source: the authors

Graphical representation of the same parameters from Table 5 is presented in Figure 12.

Conclusion

Together with advanced financial institutions, financial innovations play a decisive role in the financial development of emerging markets. The

conducted research showed that financial innovations have adequate application in Serbia, a developing market. The reasons for the decade-long delay when it comes to the application of certain innovations should be sought in the insufficient development of the financial market on the one hand, but also the very low standard of people, given that financial innovations have as prerequisites for wide and profitable applications, from the point of view of banks, the existence of the Internet, and then mobile telephony, later smartphones and other mobile devices, all of which represent limiting factors when it comes to innovation.

The Covid-19 pandemic forced the process of digitization and the adoption of financial innovations to accelerate, and judging by the results of the research, this process is irreversible.

The present research, which also uses the same indicators and regression model, differs from the mentioned sources of literature in the fact that they all looked at the relationship between financial innovations and bank performance, considering where the bank's benefits are. The research conducted had a perspective from the viewpoint of the bank's clients, how much the average wage affects the purchase and use of the bank's financial innovations. This fact can be very encouraging for bank managers, to decisively start digitizing all banking services, which the financial market of Serbia can adopt, given that the pandemic and the time after it showed that bank clients are ready to permanently accept banking innovations, regardless of the trend of decreasing real wages**.** This conclusion is supported by the fact that even after the end of the pandemic, the process of accepting financial innovations did not slow down, on the contrary, the number of users continued to grow. This is despite the fact that after the pandemic, inflationary pressure began to increase in Serbia, which had a particular impact on the reduction of real wages, regardless of the average nominal growth of the same in the observed period. The clients of the banks have shown their readiness to allocate the necessary financial resources from the already reduced consumer basket for the use of innovations, estimating that they have certain benefits from it. This is supported by the proven hypotheses in this paper.

Future research could deal with the value of the transactions made in this same period, and whether the growth in the number of users of financial innovation is accompanied by an increase in the value of those transactions. Is the inflation factor also noticeable in the increase in the financial value of transactions, could be another question for future research.

Certain limitations may appear in future research, related to a real reduction in wages, or even job loss, and that is to what extent bank clients are ready to continue using existing financial innovations, i.e. buy new innovations, at the expense of this reduction.

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✉ **Correspondence**

Vera Zelenović

University of Novi Sad, Faculty of Economics in Subotica
Segedinski put 9-11, 24000, Subotica, Serbia

E-mail: vera.zelenovic@ef.uns.ac.rs