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USE OF BANKING MACHINES IN THE PAYMENT SYSTEM OF THE REPUBLIC OF SERBIA AS A PERSONALIZATION MODEL FOR BANKING SERVICES

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Abstract: *Adapting to specific customer requirements is a challenge and trend in modern business. Modern solutions applied in the banking sector in the field of payment require balancing between their business objectives, legal framework, and their current and potential clients. Implementation of solutions such as banking machines in the payment system and adapting to the specific requests of customers clearly shows the difficulty of the procedure of their introduction on one hand, and strengthening their competitive position through innovation on the other. The advantages of using modern banking machines are multiple and therefore many participants in the payment system are deciding to implement them into their business model.*

Key Words: ***Payment system, Banking machines, Innovation, Personalization***

1. INTRODUCTION

In recent years, there is an increasing tendency of businesses to shift traditional business to e-business use of Internet technologies and the use of all the advantages that this type of business has to offer.

Business development through the automation and digitization is the primary goal of many businesses. This approach leads to a strengthening of the market position and creating sustainable growth and development. Recognizing the need for digitization in the payment system, the idea of banking machines as a concept that allows automation of the payment and which allows the creation of branch offices without employees. As technology provides consumers with new, smarter options, there's been a seismic shift in the banking industry [1]. Banks are in a state of transition – both physically and digitally [2].

This concept solves some of the problems that have so far faced entities in carrying out payment services; downtime, a commitment of additional resources, adapt digitization of payment and able to through the banking machines create their own brand, with significant cost savings ranging up to 50% compared to the existing business model.

The introduction of banking machines in payment system involves a comprehensive process that requires changing the current business model, but it is necessary to strengthen the market position.

The concept of banking machines in the payment system is interesting for its executives: commercial banks, post office, mobile operators and other participants in the system. Although the introduction of these machines in the business process requires a higher level of innovation, investment and willingness to change business concept, but the benefits of investment to go much beyond the material and the immaterial sense.

In addition to changes at acting payment services are necessary and certain legislative changes by the regulator of payment system - National Bank of Serbia.

Following the latest trends and banks, which operating in Serbia has started to use banking machines and Internet banking in their operations and personalization of their services.

Their implementation is not enough fades and is still expecting an expansion of these devices in the market because the business objectives of banks are increasingly moving away from the concept of counter service branches. Banks and credit unions are facing a crossroads: acknowledge and embrace the demands of customers wanting more personalized and simplified services or try to push customers into a dated mass production model.

Large manufacturers offer standard ATM devices, while banks are trying to personalize these devices, according to their business objectives, and adapt them to its customers. Very quickly the participants in the payment system understand how many advantages the use of bank machines brings in business. They strive to follow and implement all the innovations that can enable the development of operations and monitoring trends of the market complex in this area today imposes. Understanding the need for banks to innovate their business concept and the National Bank of Serbia seeks to amend the relevant regulations allow their proper implementation and functionality that are necessary to their users. Negotiations between the National Bank of Serbia and the participants in the payment system are permanent and are aimed at improving both the overall business environment and the rapid development of innovation in acting payments.

Big changes are taking place in the field of performance and personalization of the services in the

payment system. Banks and their customers understand the advantages that modern banking allows, although resistance to new technologies has always present. The most successful technology will be so aligned to customer's needs that they stop seeing it as technology. It's just something that helps them get on with their lives [1].

2. THE BANKING SYSTEM OF THE REPUBLIC OF SERBIA

The banking system is the structural network of institutions that offer financial services within a county. The members of the banking system and the functions they typically perform include [3]:

(1) Commercial banks that take deposits and make loans,
(2) Investment banks which specialize in capital market issues and trading, and
(3) National central banks that issue currency and set monetary policy.

The banking system of the Republic of Serbia comprises the Central bank (the National Bank of Serbia) and commercial banks. The National Bank of Serbia is independent and autonomous in fulfilling its functions stipulated by the NBS Law and other laws, and is accountable for its work to the National Assembly of the Republic of Serbia.

The primary objective of the NBS is to achieve and maintain price stability. Without prejudice to its primary objective, the NBS also contributes to the maintaining and strengthening of financial stability.

The banks in Serbia are independent in their pursuit of profit-oriented business activities based on the principles of solvency, profitability and liquidity. There are 29 registered commercial banks with more than 1600 branches and 6 representative offices of foreign banks on the territory of the Republic of Serbia at the moment. International operations can only be performed with a special authorization issued by the National Bank of Serbia.

The ultimate objective of the bank system modernization is to assist in the development of a modern banking sector able to service the needs of a growing economy, thereby increasing confidence in the Serbia banking system. An important role in the process of modernization has an efficient implementation in personalization of payment services, and their closer to end user.

Table 1. *Financial statement for all commercial banks in Serbia in 2015* [4].

No	Bank	Total Balance Sheet Assets (In thousands of dinars)
1.	Agroindustrijsko komercijalna banka AIK banka a.d. Beograd	179,078,758
2.	Alpha bank a.d. Beograd	81,175,267
3.	Banka Intesa a.d. Beograd	487,799,169
4.	Banka Poštanska štedionica a.d Beograd	129,865,797
5.	Credit Agricole banka Srbija a.d. Novi Sad	71,548,880
6.	Erste Bank a.d. Novi Sad	117,487,765
7.	Eurobank a.d Beograd	140,582,600
8.	Findomestic banka a.d. Beograd	13,895,005
9.	Halkbanka a.d. Beograd	31,934,812
10.	Hypo Alpe-Adria-Bank a.d. Beograd	101,513,200
11.	JUBMES bank a.d. Beograd	10,416,109
12.	Jugobanka Jugobanka a.d. Kosovska Mitrovica	1,341,378
13.	KBM Banka a.d. Kragujevac	8,893,341
14.	Komercijalna banka a.d. Beograd	391,856,849
15.	Marfin Bank a.d. Beograd	22,432,206
16.	MIRABANK a.d. Beograd	2,248,727
17.	mts bank a.d Beograd	7,132,723
18.	NLB bank a.d Beograd	28,705,134
19.	Opportunity banka a.d. Novi Sad	11,747,477
20.	OTP bank Srbija a.d. Novi Sad	45,144,291
21.	Piraeus Bank a.d. Beograd	52,546,969
22.	ProCredit Bank a.d. Beograd	82,080,131
23.	Raiffeisen banka a.d. Beograd	234,426,451,
24.	Sberbank Srbija a.d. Beograd	106,835,530
25.	Societe Generale banka Srbija a.d. Beograd	230,537,473
26.	Srpska banka a.d. Beograd	8,897,173
27.	Telenor banka a.d. Beograd	7,876,172
28.	Unicredit Bank Srbija a.d. Beograd	308,283,811
29.	Vojvođanska banka a.d. Novi Sad	120,328,157
30.	VTB banka a.d. Beograd	11,216,121
	TOTAL:	3,047,824,476

* As of: December 31, 2015; Updated: April 05, 2016

2.1. Personalization of the payment system

In the broadest sense of the term, the payment system is a set of systems enabling transfer and circulation of funds [4].

According to Marcel and Rosner: A payment system is a set of instruments, procedures, and rules that govern the transfer of funds from one bank to another to settle their obligations. A payment system, then, defines the interbank settlement behavior. It defines the processes through which money moves [5].

To perform its role successfully, the payment system must fulfill three prerequisites. One is that financial assets should be kept in payment transaction channels for as short a time as possible. That second involves reliability and implies secure performance of transactions and uninterrupted availability, while that last, but not the least, is the affordability of the prices of these services.

Considering that the payment system strongly influences the velocity of flows in the economy, overall costs and liquidity of participants, and that it serves as a monetary policy transmission channel (disruption in the payment system could compromise public confidence in the financial system as a whole), it comes naturally that the Central bank should be the one highly interested in ensuring its efficient functioning. The Central bank encourages its measures personalization in the financial sector and the banking business in general.

Traditional mass production techniques and commoditized products may result in getting new customers in the door, but research has shown that a key to retain customers, especially profitable ones, is through personalized solutions that drive loyalty to the brand. Furthermore, high levels of customer satisfaction result in a powerful competitive advantage and less likelihood to stray to rival banks.

The payments landscape has seen a rapid transformation in recent years, as innovations such as mobile payments and virtual currency have been developed to meet consumer demand for more-convenient payment options [6].

Today's banking clients have more options than ever before. Each client has become the focal point of their own retail lives in what is rapidly becoming a "Bank of One" experience. Thanks to online and mobile technology that allows the bank to travel with customers wherever they go, they rarely need to set foot inside a branch.

Personalization can be difficult for banks to deliver, however - not because they lack the desire, but because legacy systems, regulations, and their own bureaucracies confine them to the traditions of the past. These forces hold them back, even while they recognize that location and products alone are not enough to attract and keep empowered customers.

Delivering a more personalized experience means understanding the needs of each client in a far more granular way. It's not just about structured data that lists balances and other hard data. It's also about unstructured information from social media and customer activities that can lend insight into understanding people's individual needs and the context of what's driving them. Only then can banks start down the path towards a more proactive and engaging experience.

The primary attributes considered by senders and receivers when selecting a payment instrument are as follows [7]:

- Certainty - assurance to the sender and receiver that funds are transferred as ordered;
- Speed - timeliness of funds transfer from sender to receiver;
- Security - assurance that payment is protected against fraud and completed as ordered;
- Control - the sender and receiver have good information about and are able to control the timing of payment;
- Universal acceptance - the payment instrument is broadly accepted;
- Versatility - useful for a variety of personal and business transactions, including the ability to transmit remittance information and
- Low cost and transparent pricing - reasonable cost relative to value; fees are clear to sender and receiver.

Providers of payment services attempt to deliver these attributes in combinations that best meet the needs of the customers they serve and allowed a personalization of their services. Technology is a principal catalyst leading to improvements in such services as one or more attributes can be strengthened without degrading other attributes [7].

By allowing consumers to tailor products to better fit their needs, banks will have the opportunity to gain loyalty in several ways [8].

- Personalization will improve customer satisfaction, a primary driver of loyalty.
- Services that meet customers' specific needs should naturally be more satisfactory than a one-size-fits-all offering.
- Personalized services will help the customer believe a bank is appreciative towards him or her, increasing trust, another loyalty driver. Additionally, trust is also impacted when the customer can create their own product with a more transparent risk/reward understanding.
- Personalization also increases stickiness as a customer will view these services as difficult to replace with another provider. Once a personalized product has been created by their existing customers are less willing to try and replicate the solution at another institution.

Banks are using personalization of payment system to create a competitive advantage for themselves. By offering clients personalized options, they can differentiate themselves from competitors as well as [8].

- Retain existing clients through added value perception and brand strength.
- Attract new clients as word of mouth marketing is a highly effective tool and satisfied customers will recommend and preferred.
- Better understand clients demands and needs by collecting and aggregating information from a segment of clients (Big Data). As a result, new products for the mass market segment can be planned more efficiently.

3. TECHNOLOGY OF THE BANKING MACHINES

Information and communication technology has changed the way by which banks see their clients and how they provide services to its customers. Today, the customers are able to perform their routine banking transactions without even entering the bank premises [9], which significantly simplifies the whole payment process., ATM is one such development in recent years, which provides remote banking services all over the world and their a higher level in personalization [9].

The ATMs are an important part of a bank's alternative channel to reach the customers, to showcase products and services and to create brand awareness. This is reflected in the increase in the number of ATMs all over the world. ATM is one of the most widely used remote banking services all over the world [7].

Transaction personalization gives financial institutions the opportunity to provide a more engaging and less time-consuming ATM user experience by customizing the most frequent transaction conducted at the ATM— the withdrawal. To speed up the transaction time, this service allows cardholders to create a "profile"

at the ATM with the ability to choose their "fast cash" amount, as well as language and receipt preferences. ATM users simply enter their PIN and confirm the transaction, instead of inputting an average of 17 to 20 keystrokes for each transaction. These personalization enhancements not only improve the customer experience, they also shorten the transaction time, making each ATM more efficient.

Almost all banks in Serbia have ATM machines as part of their business network. These are mostly from leading world's manufacturers such as NCR and Wincor Nixdorf. ATM machines have been quickly changed and banks have adapted their functions according to the needs of its clients and personalization of its services. Recently, the utilization of emerging automated banking kiosks has allowed the wider use of banking services outside the branches.

ATMs allow their customers to withdraw the money from their accounts, pay bills, exchange currencies, obtain bank statements and many other services**.**

Modern ATM machines are equipped with touch or non-touch display, integrated full page thermal printer, barcode scanner, magnetic card reader, integrated speaker, video camera, keyboard with trackball, cash acceptor, and other features. Banks have an architecture for connecting to the payment system, so it's important to properly connect the ATMs to bank information system.

In order to be connected to the payment system, AMTs are using existing WiFi networks or other which are available at the premises. New systems allow that ATMs emits their own free connection.

Bank's department of development must be constantly monitoring changes occurring in the field of technology and find ways to successfully implement them in its own business system.

Bank's technology architecture must support the digital application infrastructure vis a vis cross connection of data across various channels for a consistent user experience. It must be scalable to ensure the expansion of data generation and device interactions [10].

One of the proposed solutions is based on broker - architectural pattern:

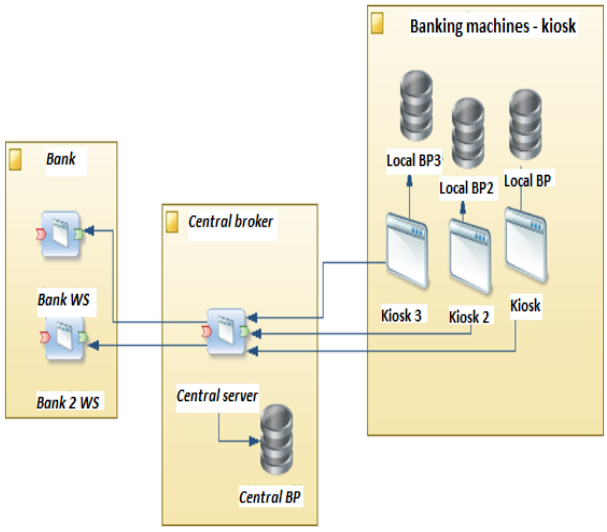

Figure 1. *Architectural of solution* [11]

This solution includes six functionality: checking accounts, the creation of payment order, denomination structure, statement for the end of the day, replacement money boxes, alarms and system security [11].

Until now, the automatization and personalization of payment transactions in the financial sector in Serbia went in the direction of the standard ATM (Automated Teller Machine). These devices are making payments to users and according to the sources of the National Bank of Serbia currently there are around 2,850 such devices in operational use on the territory of the Republic of Serbia. Their introduction into the banking system of the Republic of Serbia started since 1998. According to the data for the year of 2014, in Serbia for approximately 100 000 inhabitants there is an average of 44 ATM units.

4. ONLINE BANKING VS. TRADITIONAL BANKING

With the development of Internet Technology, there have been major changes in banking business due to the development of online banking. Online banking is a form of electronic banking offered via the Internet whereby consumers can perform and transact financial services in a virtual environment [12]. The term "online banking" is associated with Internet banking or electronic banking which has been appropriately defined as the automated delivery of new and traditional banking products directly to the customers through online and interactive communication channels [13].

The goal of most financial institutions is to deliver a personalized digital experience that helps consumers improve how they manage their day-to-day financial lives. By doing so, banks and credit unions can elevate the level of customer engagement, reduce costs, increase cross sales, and drive higher customer satisfaction and loyalty.

To accommodate changing customer behavior and leverage growing Internet capabilities, banks began embracing a model of tighter customer engagement. This translated into an expansion of their online offerings to "advisory services," "engagement-based services" and "advanced financial services." This shift from a customer service model to a customer engagement model brought about a radical change in consumer Internet banking [14].

Almost all banks provide features on similar lines with no differentiation. This has resulted in a shift in focus from a service to an engagement model to establish long-term customer relationships. These relationships, not only create new revenue opportunities, but they also turn customers into advocates who bring new customers to the bank through favorable word of mouth voiced through social media channels.

Research on consumer attitude and adoption of Internet banking has shown that there are several factors that predetermine the consumer's attitude towards online banking such as person's demography, motivation, and behavior towards different banking technologies and individual acceptance of new technology [15].

Modern life imposes the use of smart technology, which makes everyday life easier. Simplifying payment method is important since a large number of people daily

pay all kinds of the bills. Users pay great attention to the security of the systems through which payments are made. The adoption of Internet banking forces consumers to consider concerns about password integrity, privacy, data encryption, hacking, and the protection of personal information.

Securing of customers information is a priority for all organizations today, yet banks are finding it challenging to protecting customers from online crooks who pose as legitimate financial institutions - and ultimately steal customer's account information [16].

Banks must protect their customers from unauthorized access to accounts, cyber criminal and other potential threats. Security is therefore raised to the highest possible level in order to protect customers from any kind of abuse.

Internet banking requires maximum consumer involvement and cooperation, as it requires the consumer to maintain and regularly interact with additional technology (a computer and an Internet connection). Consumers who use Internet banking use it on an ongoing basis and need to acquire a certain comfort level with the technology to keep using [15]. Their demand is that the services are affordable, simple and adjusted.

Use of Internet banking can allow the customer to handle almost all their banking transactions online.

Online banking allows that all transactions can be realized and personalized via different devices, including computers, tablets, mobile phones, without physical contact. The potential is huge, considering the number of smart devices in the world and predicting their growth rates.

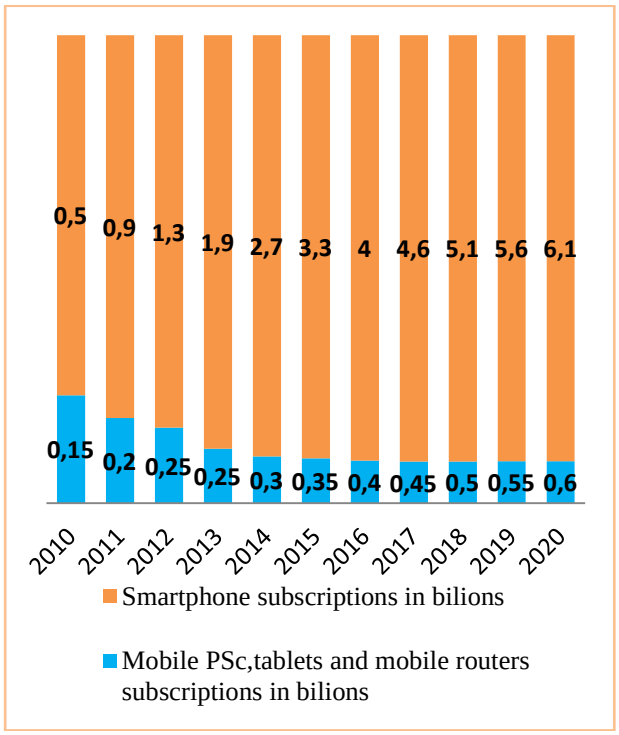

Figure 2. *Prediction for the number of smart devices with a cellular connection in world for 2010-2020* [17]

The forms of Internet banking in providing banking services and personalization [18]:

- Deposits, withdrawals, inter-account transfer and payment of linked accounts at an ATM;
- Buying and paying for goods and services using debit cards or smart cards without having to carry cash or a checkbook;
- Using a telephone to perform direct banking-make a balance inquiry, inter - account transfers and pay linked accounts;
- Using a computer to perform direct banking-make a balance inquiry, inter-account transfers and pay linked.

A personalized customer experience has been a de-facto feature of online services and particularly e-commerce for years. Internet banking is changing the traditional banking industry and offers new products and services based on new technologies, that are much more tailored to the client. All bank units must continue to develop innovative products in order to keep up with changing technologies and customer demands, as traditional banks have pioneered the development of many innovative delivery channels [19].

The expectations and requests from clients can be viewed as a:

- More personalization
- More options
- More interact with their bank
- Listen more carefully and quick responses, with the more competence
- Enabling a higher level of control for front-liners
- More flexibility and protection

Internet banking creates new value as a combination of traditional banking and new technologies. Unlike traditional banking, which relies on banking branches, Internet banking requires only smart devices and Internet access to accomplish clients' orders.

Internet banking has many advantages over a traditional banking such as:

- Online account is simple to open and easy to operate
- Allows 24/7 availability of services
- Banking services are allowed anytime, anywhere without waiting in line
- Online rates can offer better rates because they have less overhead so they can pass savings to their customers and allows lower fees because it doesn't include monthly maintenance fees and withdrawal fees
- Faster and efficient execution of transactions
- Reduced possibility of human errors
- Internet banking is a new way for banks to promote their products and services such as loans, investment options, and many others
- A higher level of personalization services and increase customer satisfaction.

Internet banking has some weaknesses for which traditional banking couldn't be completely suppressed. According to author O. Shannak some of this key disadvantages are [20]:

- Poorly delivered Internet banking services can be slow and time - consuming.
- Some identity authentication requirements can be annoying and overwhelming for clients.
- Might require lots of paperwork and procedures for registration and set - up, such as documentations and power of attorney to spouses beyond what is required for traditional paper - based dealings.
- Can be difficult for clients to get familiarized with the bank's website and Internet banking channel - each bank has its own unique website and methods.
- Frequent changes and adjustments to the bank's website and delivery channels that require re-familiarization and in some cases re-registration and documentation.
- Distrust by some clients in some countries with primitive legal system and unreliable technological infrastructure might face security and legal challenges.
- Some clients still prefer human interaction and personalized attention.

Some possibilities which Internet banking allows are: deposit checks, pay bills securely online, transfer funds securely, check balance, view account, etc. All these features have led to an increasing number of users of Internet banking.

A number of the bank's clients in Serbia who use Internet banking is rapidly growing [21].

Table 2. *A number of the bank's clients of payment services used in 2015* [4]

	I	**II**	**III**	**IV**
Total number of clients	8.774.395	8.865.687	8.912.967	9.032.298
Service				
Internet banking	1.029.521	1.261.420	1.332.019	1.412.885
Phone banking	106.069	110.473	115.243	121.648
Mobile banking	218.456	275.668	324.103	464.167
Standing order	284.286	293.360	302.526	311.736
Internet banking-payment card	2.074.435	2.112.232	2.123.542	2.216.610
Internet banking internet card	82.660	85.970	88.510	92.640

Bank clients are increasingly deciding to switch from bank branches to Internet banking. The advantages which this kind of service allows are significant for all bank clients. The system allows an enormous opportunity for clients to personalize their bank services, what is the important requirement in the modern business.

All banks in Serbia offer some form of the Internet banking system with the constant development. They utilize technology achievements of the modern world, such as RTGS payment and payment of large value, a net system for the small payment and others [21].

Customers can use Internet banking via smartphones, tablets, computers, ATMs and other smart devices with an Internet connection. Banks offer this service for citizens and for legal entities. The survey shows that as financial institutions replace aging ATMs or expand their current ATM fleets, many plans to explore new capabilities such as video conferencing, biometrics and remote teller assistance [22]. Financial institutions are also demanding more from their ATM vendors, including better quality service and support [22]. This system is becoming more and more interesting because it brings many benefits to its users.

Special attention in the electronic banking is dedicated to safety standards. For this segment is also the important participation of all subjects in payment system: banks, customers' and Regulatory Body (in Serbia that is The National Bank of Serbia). Today, in corporate banking is a standard PKI infrastructure, accurately the infrastructure of public keys that are usually based on asymmetric and symmetric implementation of code system that provides full protection of confidentiality, authenticity, integrity, and allows non-repudiation transactions ie., includes basic cryptographic functions of e-business that is defined by the Law on Electronic Signature.

In order to attain global networking and increased efficiency of the banking industry, especially in developing countries such as Serbia, one of the most important tasks of management is promoting the adoption and use of Internet banking systems for fast and efficient delivery of services that will lead to increased sales and market share at the same time meet customer satisfaction, attract new customers, and retain existing ones [23].

With the development of their competitive services, banks will need to promote smart and practical branded services, especially self-services at the same time promote a universal adoption of e-banking system services that add entertainment or extra convenience to customers such as ease of use, including digital wallet, real-time interaction (video banking), ATM's integrated with smartphones, website customization, biometric services, and digital currency.

These services can contribute to an increasing adoption of online services [23] and more efficient system of service personalization.

From transaction personalization to customized, the future of ATMs is in their value as customer relationship and marketing vehicles, allowing financial institutions to mitigate the trend of declining ATM profitability while maximizing the potential of their ATM programs.

5. THE ROLE OF BANKING MACHINES IN PERSONALIZATION OF THE PAYMENT SYSTEM IN THE REPUBLIC OF SERBIA

By investing in banking machines, banks are realizing there is a higher level of profitability, personalization of services and greater relief of their branches. The emphasis will be to offer 24/7 service to the customers out of bank branches, and that branch role will be mainly advisory. Banks provide incentives for their clients to use ATMs and e-banking services by offering discounts on payment operations fees in relation to the standard over-the-counter payment operations.

In its effort to achieve the highest possible profit in the business, the banks are primarily trying to influence the reduction of costs. During the opening of a branch, banks have certain costs that are covered from their current revenues, but over a longer period of time this generates much higher costs, so it raises the question of the effectiveness. With the introduction of banking machines, the reduction of operating costs was enabled, as the cost of their maintenance is much lower compared to conventional branches. Banks also are trying to attract as many users for their services. Ownership of ATM machine networks reduces the need for opening branches, which significantly affects the increase of profits, obtained through the reduction of operating costs.

The first ATM in Serbia was set back in 1974, in Beobanka but this concept has not been implemented until 1998 when a number of ATM devices were set up to effectively perform their function. Today all the banks operating in Serbia have ATMs and their number is around 2850. Beginning from the initial automatic machine to model itself and its functions, the implementation and design are quite changed in accordance with international standards. The ATM's network in Serbia is not sufficiently developed, the reason is that Serbia has 400 ATMs per one million of inhabitants, which is far less than the regional, European and world average. Due to the current economic crisis, the market for ATMs in Serbia was significantly reduced, especially in 2011 where it fell by 0.9%, while since 2012, the market has been slowly recovering [24].

Banks have started to allocate more funds to invest in the expansion and improvement of the ATM networks in Serbia. In addition to the devices that are bought from the world - renowned manufacturers, some of the banks have decided to get involved in the process of designing and creating a device that fits their own business model. This approach has proven to be quite successful, and the opportunities that these systems offer to their clients are very adaptable to the client requirements.

Transactions which are critical for economic activity and the daily lives of Serbian are made using many different payment instruments, such as cash, debit cards, credit cards or electronic transfers. Underlying these transactions are payment networks and infrastructures that facilitate the actual movement of funds - the exchange, clearing and settlement of payments. Cash is the most basic and widely used means of payment by individuals in industrialized countries for transactions, as is the case in Serbia.

Services available through these machines are: withdrawing money from the account, payments to the account, bill payments by cash or card, card activation and change of the pin code, checking account balances, and receiving account statements, exchange transactions, deposit safes for the submission of the profit, quick deposit of funds within savings deposits or withdrawals from savings account deposits.

The largest bank in Serbia at the forefront in the matter of the introduction of new services and business models appears to be Banka Intesa a.d. Belgrade. The bank has been on the Serbian market more than 10 years and has had a network of about 170 branches and over 180 ATMs nationwide. The diversity of innovation is reflected in the range of services offered by the Bank, as well as continuous improvement of its business concept. The Bank has introduced e-banking operating during the working hours of the branches and those that are open 24 hours non-stop. This is possible in order to quickly and safely perform any payment from one's current account, check the status or print copies of the accounts and credit cards. The only limitation is that this form of service is available to users of debit cards of Banca Intesa connected to their current account [25].

ProCredit Bank has introduced the first self - service zone 24/7, in 2015, in Serbia. For the development of this concept, the bank invested about 3 million euros, which has positioned it as the leading bank in the development of modern electronic channels. These zones enabled complete support for transaction banking, which left more room for branches to give advisory services. Within the zone, there are several mechanisms that make a unified whole. There are: ATMs, terminals for transfer orders, transaction terminals, info terminals, safe deposit [26]. The introduction of this operating concept contributed to a significant reduction of workload for counters in banks, as well as faster and more efficient service performances. Using 24/7 service at the ProCredit Bank is possible with the possession of payment card, with the plan for further expansion in all branches and at special locations where there is self-service 24/7.

Bearing in mind the benefits that Internet banking can offer through ATM machines, innovating it's business concept began at Credit Agricole Bank as well. This bank began creating their own machines in cooperation with local companies and affiliates as well as Asseco and the National Bank of Serbia. The solution is in the form of banking kiosk ATM+, which is currently in the testing phase [27]. In the development of this concept national scientific institutions have participated, which is an example of good practice, of cooperation between the banking sector and scientific institutions, that is not so common.

Banking kiosk allows one to pay all kinds of bills in cash (with the return of change) or with a credit card. Data entry is simplified by using QR code (Quick Response) and android application specially designed for this purpose. The innovation of this concept is reflected in the ability to process a single ticket payment made to the account of different issuers. Upon completion of the transaction, one receives the receipt with the seal of certified payment, as required by law, and thus an unnecessary additional trip to the counter. Security has been raised to a significantly higher level (improved

system control and security of safe), which is an additional advantage of this device. This model has great significance because it makes the payment service available to everyone, regardless of whether they have an account in the bank or not, which is very important taking into account a large number of people who do not have accounts in any bank. Terms of payment are the same for all users, regardless of which bank issued their card. With this in mind, we can conclude the great potential of banking kiosks, even in relation to Internet banking via smart devices. The plan is to place these machines outside the bank branches, thus making the service more accessible, because this concept is based on the principle of 24/7.

Due to the many advantages that this system brings and the positive experience of the banks that started with the innovation of their business concept this way, it is expected that soon other banks move in the same direction. For now, the highest level of development and personalization in the banking sphere is shown by the Internet. This is corroborated by the data obtained in the survey conducted by Cummins Allison Corp., which shows that the ATM devices are very important to the customers in accessing their banking services, making it third place by importance, second only to the Internet and banking branches [22].

Start of implementation of the new Law on Payment Services (from October, 2015), as a major step forward in modernizing the national payment system, personalization of bank services and enhancing client security and protection, improving the efficiency of payment transactions and creating a legal basis for developing innovative ways of payment. Further, the Law provides for detailed, comprehensive, balanced and improved protection of payment service users. This refers primarily to consumers' rights to be informed, as well as to charges, changes to contracts, execution of payment transactions, and use of payment instruments. The Law also regulates the payment system as an important financial infrastructure which enables linking of payment service providers for the sake of timely execution of payment transactions of their clients. Consistent with EU rules, the Law regulates settlement finality in payment system important for financial stability. Payment system and, by extension, the entire financial system, are protected from individual systemic risks in the event participant's inability to settle obligations. The Law also envisages broader and enhanced supervision. The National Bank of Serbia will supervise all payment service providers and electronic money issuers (including the Post Office) in a segment of their operations pertaining to the provision of payment services and issuance of electronic money. The National Bank of Serbia also supervises payment system operators [4].

6. CONCLUSION

Advantages of banking machines in payment operations are multiple, especially in terms of relocation of these services from the banking centers, personalization, and availability of the same, options for payment and implementation of advanced technologies.

The number of these devices in Serbia is not sufficient, and much lower compared to the other countries in the region, this is expected to increase due to better distribution, according to research of RBR, at the global level, there will be increase of number of ATMs placed in the period between 2014-2020 for the incredible 37**%** [28]. It is expected that other banks involved in this developmental process of the ATM market with the implementation of modern technologies and adaptation to the modern business model based on Internet banking through banking machines.

This concept provides an excellent opportunity for business concept innovation, the creation of the bank's brand and marketing strategy for a more efficient approach to the market. Through transaction personalization options, customers can preset their preferences for the types of transactions they want to perform and the information they want to receive, which leads to feelings of personalized relationships and loyalty.

All predictions suggest that in the future, it is expected complete suppression of the usage of cash and its replacement by digital money. Even today in the world, everyone is thinking about all the potential that this change will bring, and how it will change the everyday life of the people. Many financial institutions are working on preparing a strategy for the effective implementation of the concept of digital cash, as the logical next step in the evolution of payments. More and more, manufacturers of banking machines are acquisitions, thereby strengthening the market position and working stronger on innovating products which are offered to financial institutions. ATMs manufacturers, in cooperation with the banks, have done a lot in terms of security, but this process of improving the security of transactions is in constant evolution.

The future of the banking customer experience looks increasingly to be defined by a seamless high-tech and high-touch environment that provides valuable, personalized consumer services through optimized delivery capabilities that enable banks to maximize opportunity capture across customer segments.

For the further development of the ATM's benefits of modern technology will be used, using systems that drive modern smart devices, applications that support the execution of transactions, at the same time listening to the highly variable needs of the user. It is necessary to make changes in a timely manner of a legal framework to ensure the implementation of these systems is carried out quickly and efficiently. This will provide a step in the future that inevitably must happen, and the time for a major revolution in the field of carrying out payment transactions has just arrived.

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