

DIGITALIZATION OF BANKING SERVICES IN KOSOVO: TRENDS AND COMPARISON WITH THE NEIGHBORHOOD COUNTRIES

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Abstract:

As in many sectors of the economy digital technologies are transforming retail financial services. The digital transformation will continue to shape this sector in coming years, and has already resulted in new products and processes that are developed and implemented by banks. By embracing digitalization, banks create opportunity to branch out, reduce costs, collaborate with other sectors, provide customers with more diverse solutions and provide enhanced customer services. This provides convenience to customers and helps in saving time.

Kosovo banking industry has undergone a long way in electronics banking in the past years, starting from no-tech (money exchangers on the street, salaries paid in cash and almost no ATM availability) to low-tech (salaries through banks, high use of ATMs and Debit Cards), to the start of the high-tech era (digital/online banking) with almost all banks currently undertaking something in the digital transformation. Kosovo has the youngest population in Europe and demographic trends are in favor of the acceleration of digitalization going forward.

So, the aim of this article is to understand the trends of digitalization and innovation of banking services in Kosovo, the role of the “digital native” younger generations so called Millennials and Generation Z in the economy and comparison with the neighborhood countries.

Keywords: banking, digitalization, innovation, customer relationship management, process, efficiency.

1. INTRODUCTION

The unprecedented change brought about by ubiquitous digitalization, high-speed connectivity and globalization has created a new concept of value creation and therefore a new economic paradigm. (Pralhad & Ramaswamy, 2004). The advancements of the recent years in information and communication technology have changed the way we live, the way we interact with one another, and very importantly the way we do business. As in many sectors of the economy digital technologies are transforming retail financial services. The digital transformation will continue to shape this sector in coming years, and has already resulted in new products and processes that are developed and implemented by banks. Thus, digital transformation has been in agenda for banks for many years now. It is clear that banks and banking will never be the same again. Knowledge Management is the latest techno-managerial buzzword earmarked for improving the work processes and creating value for a firm's operation (Kostas Samiotis, 2014). Digital strategy can be defined as a strategic plan that consists of specifying the organisation's digital vision, goals, and opportunities, as well as allocating the organisation IT resources that are required to execute the strategy (Zhu, 2015). Knowledge management is such a critical aspect of enterprise digital transformation. Only through effective knowledge management is possible to consistently extract maximum value from data in the digital enterprise. Good knowledge management solution will provide the way to capture knowledge from everyone across the organization, as well as to organize it so that it's widely accessible and usable.

For a retail bank to be able to compete with new entrants and to be able to develop personalized and unique customer experiences, it has to modernize its information technology (IT) structure and become more digital oriented (Broeders & Khanna, 2015). Since IT has become a central part in today's digitized business environment, the strategical planning of IT and digitalization is a top-priority for today's organizations, and this is conducted through the digital strategy (Galliers et al., 2014; Luftman, 2000). Knowledge management is becoming key element of management in financial institutions for a number of reasons. Firstly, bank officers must be clearly aware of new products and services to support the constantly changing needs of business, and secondly, the rapidly changing market requires the constant exchange and analysis of information from various sources. Yet, according to a survey of the International Data Corporation (ICD report, 2016), carried out among more than 600 banks in Western Europe, only 20% of the banks apply the principles of knowledge management at present. Nowadays, knowledge management has changed its nature from theoretical concept to an instrument that assists innovativeness. The constant improvement of knowledge management systems must become a standard operational issues, since in a rapidly changing business environment, knowledge cannot be taken a static matter, but an ever-changing and ever-expanding field of extremely complex relation (Nonaka, Toyama, & Hirata, 2008). To ensure competitiveness and increase the quality of customer support, banks are introducing a number of knowledge management solutions, content management systems, corporate portals and knowledge portals, instruments for organizing a joint work and CRM systems (Mizintseva & Gerbina, 2009). Traditional banking has a limited accessibility in which people only can do their transactions in the bank. It makes customers inconvenience in doing their business and provides less efficient services to customers because customers need to spend more time to complete the transaction by visiting the banks. Modern banking emerged to fulfil the deficiencies of the traditional banking. Modern (direct) banking does not require physical presence of the customer since all the services are provided online.

Kosovo banking industry has undergone a long way in electronics banking in the past years, starting from no-tech (money exchangers on the street, salaries paid in cash and almost no ATM availability) to low-tech (salaries through banks, high use of ATMs and Debit Cards), to the start of the high-tech era (digital/online banking) with almost all banks currently undertaking something in the digital transformation. The banking industry in Kosovo is being increasingly oriented and developed towards the advancement and greater use of electronic services. This rapid development towards the advancement of electronic payment instruments is a response to the development of information and communication technology (ICT) and the need of banks to meet the customer requirements. However, even though banks in Kosovo have necessary infrastructure they lack innovative vision and flexibility. Banks have started to gradually invest in digital, but it's still not the primary channel for customer engagement and service, and still majority of transactions are done in the bank, not through e-channels. Client onboarding, account opening and loan application are done in the bank premises, not online, due to the lack of digital signature law implementation. Majority of national and international transfers (78%) are done in the bank physical branch and only 22% through e-channels (e-banking and m-banking). Out of 477 ATMs in the industry only 44% of them provide cash-in option, meaning that majority of cash deposits are done in cash boxes of the bank premises and not through ATMs (Central Bank of Kosovo, 2018). Banks innovative solutions implemented by banks in Kosovo are behind neighborhood countries and Estonia. New technologies implemented such as biometric authentication, NFC digital wallets, cloud-computing adoption, robo-advise, big data-driven credit scoring, AI / Machine Learning, innovative uses of data/data profiling/ big data are not implemented by any bank in Kosovo yet. The reasons vary from legal infrastructure, lack of know-how to risk averse culture. The research will seeks a deeper understanding of the current situation and the trends in the banking industry that are expected to drive the dynamics of the banking ecosystem in the near future such as digitalization and innovation and the role of the "digital native" younger generations so called Millennials and Generation Z in the economy and comparison with the neighborhood countries.

2. BACKGROUND OF THE RESEARCH

Traditional business models in banking face more and more challenges, pressed by higher competition and shrinking margins. To address this, banks are creating specific proposition for niche business segments rather than for the entire market. Some examples might be serving youth, women-owned enterprises, start-ups, informal businesses, etc. Millennials will be controlling significant portion of the global assets in a few years, yet 82% of them feel that they are vulnerable to the future financial well-being (Sorokina, 2017). Customer expectations regarding financial services are increasing, and banks may find it difficult to meet constantly raising demands using their traditional business models. Fintech companies, complementing traditional banking, can bring alternative sources of finance, enhance and streamline processes, provide innovative products and additional benefits to the customers and improve efficiency of the bank operations. For the banks to survive they will have to follow the future trends, such as emphasis on improving the customer experience, a better integration of delivery and communication channels (refinements in multichannel delivery) and improved analysis and use of data and insights. Increased customer expectations greatly linked with the latest technological advancements have forced banks to step up from traditional banking and actively engage in rethinking their business models. The expectations for seamless and secure banking experiences across various channels are shaping banking and its future. Traditional banking, is no longer option (King, 2012). Ten commercial banks operate in Kosovo, representing 65% of total assets in the financial sector, 8 of which are foreign-owned and comprise about 88% of total banking system assets, meaning that 2 domestic banks account for the remaining 12%. Banking industry is the most sustainable sector in the economy, very stable, well capitalized and liquid. Non-performing loans (NPLs) of less than 3% makes the lowest in the region, and provisions already cover more than 100% of bad debts. The banking system has a Tier 1 capital adequacy ratio of 18%. The central bank limits loan-to-deposit ratios to 80%, and in fact many banks have ratios well below this. Profitability of the sector have increased by 235% compared to five years ago (CBK, 2018). As a result, the banking sector in Kosovo has been one of the most profitable destinations in Southeastern Europe in recent years and has recorded a return of equity reading of around 20% or even slightly above that in recent years (Dauber G., 2018).

Table 1: Number of banks in Kosovo

Bank	Equity	Assets	Profit	# of employees	Market share
Raiffeisen Bank	126,588	886,114	23,927	845	22%
Procredit Bank	93,654	755,106	16,962	268	19%
NLB	70,133	665,874	14,859	476	17%
TEB Bank	90,620	559,792	15,975	590	14%
BKT	35,528	411,096	5,035	358	10%
BPB	25,005	254,070	5,453	339	7%
BE	29,363	281,114	4,718	318	7%
Ziraat Bankasi	7,783	43,174	1,828	28	3%
IS Bank	10,895	116,569	(484)	23	1%
Komercijalna Banka	N/A	N/A	N/A	N/A	N/A

Source: Web page of individual banks, 2018

Kosovo's banking sector in recent years has considerably increased its role in financing the economic growth of 4% the country, accelerating the loan growth rate, and significantly reducing loan interest rates. Compared with the same period five years ago, loan portfolio has increased by 45%. As of December, 2018 (CBK, 2018) the average loan interest rate was 6.6%. There is enough liquidity in the market and banks are well capitalized. Portfolio quality remain at 3% and is improving year-by-year. There is significant growth in all indicators, deposits, lending and also rapid decline in interest rates on loans.

Table 2: Key performance indicators of banks in Kosovo

Description	2010	2011	2012	2013	2014	2015	2016	2017	2018
No of banks	7	8	8	8	9	9	10	10	10
Deposits	1,937	2,104	2,279	2,449	2,538	2,703	2,898	3,095	3,365
Deposit growth (%)	11%	9%	8%	8%	4%	7%	7%	7%	9%
Loans and leasing	1,459	1,698	1,763	1,806	1,882	2,020	2,230	2,486	2,756
Loan growth (%)	13%	16%	4%	2%	4%	7%	10%	12%	11%
Loan to Deposits Ratio	75%	81%	77%	74%	74%	75%	77%	80%	82%
Non-performing loans	6%	6%	8%	9%	8%	6%	5%	3%	3%
NPL growth/decrease	52%	14%	34%	19%	-1%	-20%	-13%	-29%	-5%
Loan growth	13%	16%	4%	2%	4%	7%	10%	12%	11%
The IR on loans	14%	13%	12%	11%	9%	8%	7%	7%	6%
The IR on deposits	3%	4%	4%	2%	1%	1%	1%	1%	1%
Net margin	11%	10%	9%	9%	8%	7%	6%	5%	5%

Net profit/loss	32.8	35.4	18.6	25.9	60	94.7	75.5	85.4	87
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Source: Kosovo Banking Association, 2018

Electronic services in retail banking technology are introduced in Kosovo on 2005, in the form of internet banking, then mobile banking and more recently, mobile payments. Actually, 9 banks out of 10 offer internet banking; 8 of them have some form of mobile banking and 6 banks provide mobile payments with 3rd party platform operator (KBA, 2017). Implementation of the digital banking platforms has offered digital banking across devices, desk top computers, laptops, tablets and mobile phones, and made possible offering of services through e-banking platform such as payroll businesses, payment for the budget, preferential exchange rate, etc.). However, as adoption and utilization of electronic channels continues to grow so are the client needs, which are becoming much more complex and demanding. In recent years banking system has adopted modern technologies, comparable to those of Western European countries with admirable intensity and speed. Electronic banking services are seen as the fastest, easiest and safest way to get information on products and perform simple banking transactions, as well as to have access to money and payments, 24 hours a day, 7 days a week. Channels of providing banking services in Kosovo are the following: bank branches, e-banking, banking by mobile phones, through call center, banking through debit cards, ATMs, point of sales (POS) and banking through 24/7 zones. Banks are applying international practices for their ongoing digitalization processes to improve retail services, resulting in easy cost-free, and 24 hours access to accounts, allowing customers to complete transactions anywhere with internet access. Since 2013 two leading banks changed the client profile they serve. For many years they have been serving micro clients and private salaries receivers. Due to the efficiency increase, banks withdrew from serving micro businesses and they increased their ticket size and changed the client profile by targeting upper SME enterprises and higher salaries receivers. Soon, this was followed by other banks in the market. With the change of the client profile, business model changed as well, resulting in the reduction of the number of employees, decrease of the number of branches and ATM's.

Table 3: Banking industry infrastructure

Description	2012	2013	2014	2015	2016	2017	2018
Number of branches	310	298	277	265	262	238	222
Number of ATM	483	496	498	540	522	512	491
Number of POS	8,592	9,071	9,349	9,705	10,589	11,501	13,183
Number of e-banking accounts	97,089	131,365	157,761	187,297	230,905	214,444	250,733
Number of bank cards	708,674	769,397	813,026	862,779	1,013,155	1,090,949	1,187,644
Number of employees	3,727	3,549	3,507	3,375	3,375	3,320	3,255

Source: Kosovo Banking Association, 2018

Table 4: Banking industry payment services

Payment System (million euro*)	2012	2013	2014	2015	2016	2017	2018
Interbank clearing system	5,681	6,435	6,832	7,476	10,654	11,638	12,953
Bank clients withdrawing through ATM	673	710	798	1,054	1,462	1,738	1,989
Abroad bank clients withdrawing through ATM	200	226	198	168	158	168	342
Bank clients payments through POS	150	159	203	239	192	203	213
Abroad bank clients payments through POS	27	33	35	65	58	58	91
Payments through e-banking	1,499	2,671	4,220	5,746	6,703	8,488	9,041

Source: Kosovo Banking Association, 2018

On the other hand, the focus on alternative distribution channels resulted with the high increase of usage on electronic services. Number of e-banking accounts in 2018 almost doubled compared to 2013, payments through e-banking increased by 248%, bank cards increased by 68% and ATM transactions increased by 178%. As a result, electronic services versus branch transactions increased rapidly. With all the investments in efficiency and the digitalization, Kosovo is still lacking behind the countries in the region in terms of electronic services usage. The number of ATMs, POSs, cards and e-banking is lower than the average of the neighborhood countries.

Table 5: Comparative table with the countries of the region:

Description	Kosovo	Albania	Serbia	Slovenia	Montenegro	Macedonia
Population	1.8	2.9	7.0	2.1	0.6	2.1
Surface (km ²)	10,887	28,748	77,474	20,273	13,812	25,713
Density (per km ²)	164	101	90	102	46	81
Banks	10	13	28	18	14	17
Population per bank (k)	180	223	310	116	44	123
ATM	512	747	2,685	1,646	402	1,031
per 1 million residents	286	257	383	795	638	496
per 100 km ²	5	3	3	8	3	4
POS	11,501	7,294	72,688	34,667	12,215	32,046
per 1 million residents	6,425	2,507	10,369	16,747	19,389	15,407

<i>per 100 km²</i>	106	25	94	171	88	125
<i>Credit Cards</i>	164,740	96,312	1,047,498	124,478	38,669	374,572
<i>per 1 million residents</i>	92,034	33,097	149,429	60,134	61,379	180,083
<i>Debit Cards</i>	926,209	914,119	6,069,216	2,599,775	452,861	1,447,425
<i>per 1 million residents</i>	517,435	314,130	865,794	1,255,930	718,827	695,877
<i>E-banking</i>	301,841	322,438	-	-	71,161	770,464

Source: Kosovo Banking Association, 2017

Besides the fact that usage of electronic services increased rapidly, banks are still maintaining their traditional business model. The latest trends of innovation and digitalization introduced by European banks were not followed by Kosovo banks. Majority of banks in Europe have introduced innovative solutions in the area of digital distribution/e-commerce sales, mobile payments, social media marketing, big data analytics, social media complaints handling and secure messaging. Some banks have also introduced telematics/biometrics/wearable technologies (HSBS and BNP Paribas), artificial intelligence, robotics and auto provisioning of cards for apple/android pay. This innovative vision is missing in the banking industry in Kosovo. Banks innovative solutions implemented by banks in Kosovo are minor, as we can see in the table 6:

Table 6: Digital and innovative solutions implemented by banks in Kosovo:

BANKS INNOVATIONS:	Implemented in Kosovo:
E-Signatures and Secure Document Uploading	No
Telematics / Biometrics / Wearable Technologies	No
Innovative Uses of Data / Data Profiling / Big Data	No
Use of DLT for digital identity	No
Digital wallet solutions for mobile payments	No
Online account opening (client onboarding)	No
Credit scoring	No
Use of biometric authentication for customer identification purposes	No
Use of cloud computing for material activities	No
Virtual & Augmented Reality	No
Social Media Marketing	Yes
AI / Machine Learning	No
Digital Distribution / E-Commerce Sales	Yes
Mobile Payments	Yes
Reg Tech	No
Innovative Uses of Data / Data Profiling / Big Data	Yes
Social Media Complaints Handling	Yes
Secure Messaging	No
OCR Technology to Pre-Populate Data	No
Automation of Financial Advice / Robo-Advice	No
Distributed Ledger Technology / Blockchain	No

Source: Central Bank of Republic of Kosovo

Number of European banks are actively involved in adopting new technologies to enhance services and improve efficiency. Biometric authentication and NFC digital wallets are the most widely deployed, followed closely by cloud-computing adoption, as banks seek the benefits of scalability and cost advantage. Robo-advice and big data-driven credit scoring are also experiencing material deployment, whilst distributed ledger technology (DLT) applications seem to be still in the research phase (European Banking Authority, 2017). In order to fully embrace the technological opportunities and offer high-level customer experience across multiple channels, a strategic step-up is required. The clients of today observe the developments in technology and very legitimately expect banking to develop at the same pace. Almost 50% of population in Kosovo is under 25 years old (European Commission Liaison Office to Kosovo, 20014), and trends are in favor of the acceleration of digitalization going forward. Moreover, internet penetration of households is the highest in the region, compared to Macedonia (76%), Albania (66%) and Montenegro (70%) (Internet World Stat, 2017). As of 2018, the internet penetration of households in Kosovo is 81% (Kosovo's Agency of Statistics, 2018). The data show that currently 61% of households are provided with a laptop or desktop computers (Kosovo Agency of Statistics, 2017). All these factors, makes a big pressure on the banking industry to innovate and digitalize. The customers have very high expectations on all of their interactions with banks, be it in a branch, online, by phone or on an app. They expect the same high-level and seamless experience and consistent messaging in all the channels they use. They expect fast, secure and reliable services at any time and any place (Kosovo Banking Association, 2018). Besides all the development in the electronic services, banks in Kosovo they lack innovative vision and flexibility. There are needed a new developments in financial service delivery channels, online access to finance, faster delivery of external transfers, and other cost-effective ways to do banking.

3. THE RESEARCH

3.1. Purpose and objectives

Main purpose of the research is to understand and find the ways and means to accelerate the level of digitalization of the banking services in Kosovo and compare with the neighborhood countries and Estonia, known as the digital leader in Europe.

The main objective of the research is to demonstrate, how the application of the ICT in the banking industry creates opportunities for banks and its customers, the people of Kosovo. Furthermore, to understand at what extend the primary and secondary¹ legislation create an opportunity for digital service development in Kosovo. The research will analyze the current level of organization, efficiency, and modernization of banking services, with the aim of reflecting the current situation and the reasons for it and also deriving recommendations for addressing potential deficiencies.

3.2. Research questions and objectives

Currently, there are no analyses or research on the level of digital banking services in Kosovo? There is a need to evaluate the quality of services and how accessible they are to the clients / citizens. Furthermore, to analyze the impact on cost rationalization for banks, businesses, but also citizens, reducing the time to complete a transaction, as well as for the general economic development.

RQ1: What is the development stage of digital banking services in Kosovo compared to the neighboring countries and Estonia?

In order to justify thoroughly the first question holistic approach and understanding is needed. Thus, different circumstance will be taken into consideration, such as legislation, institutional infrastructure, expansion or development of the e-network, opportunities offered by e-services, level of the transaction, security on transactions and staff training.

RQ2: Are the demographic trends in favor of the acceleration of digitalization going forward?

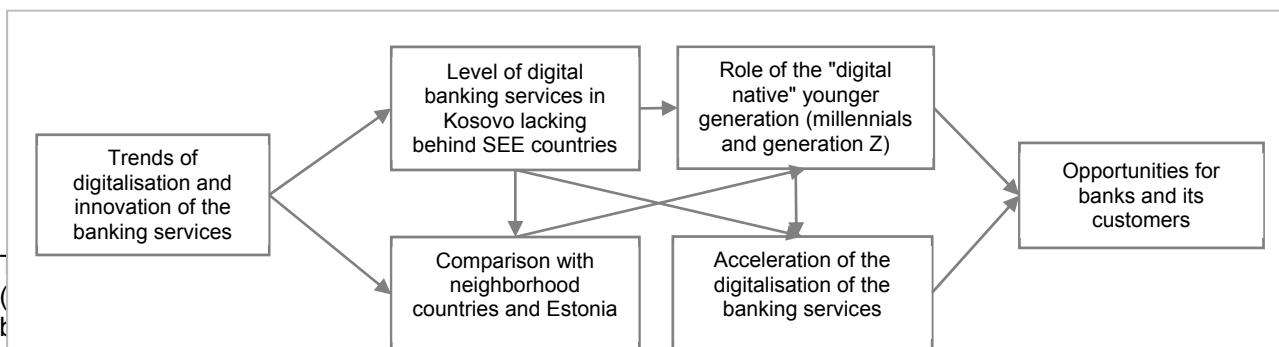
The age structure of a population in Kosovo affects the acceleration of digitalization. To demonstrate the impact of this factor, there is a needed to evaluate changes in demography and facilitating technologies and assess the impact of these changes on utilization of digital services.

RQ3: What is the role of the “digital native” younger generations so called Millennials and Generation Z in the digital economy?

Survey will be used for gathering data’s and information about usage of electronic services versus branch transactions by bank customers.

RQ4: Is Kosovo banking sector lacking behind compared to the SEE countries in providing the digital banking services and innovation to the “digital native” young population?

Picture 1: Research model



Question 1 will gather the data with interviews. I choose interviews because they are an appropriate method when there is a need to collect in-depth information on people’s opinions, thoughts, experiences, and approaches. Furthermore, interviews are useful when the topic of inquiry relates to issues that require complex questioning and considerable probing (Easwaramoorthy & Zarinpoush, 2006). Interviews will be conducted in all banks in Kosovo with three level of management (senior, middle, junior management and two employees on an operational level), therefore 5 per bank and since there are x banks, altogether y interviews. Interviews will be conducted also with the Central Bank of Kosovo and Kosovo Banking Association officials. According to the procedure for making the interview (Valenzuela, 2010) I will use semistructured questionnaires. Interview questions will be open – ended and multiple choice questions. I find the interviews very helpful for answering my research question. It will help to explain, better understand, and explore research subjects' opinions, behavior and experiences. Survey will be used for gathering data’s and information about usage of electronic services versus branch transactions by bank customers. Comparative analyses will be presented by comparing banks in the industry. Secondary source of data’s and information’s will be Kosovo Banking Association, Central Bank of Kosovo and Albanian

¹ Primary legislation are laws and secondary legislation are regulations and administrative instructions.

Banking Association. The results of the research will be used in compiling an assessment of the level of digital banking services development in Kosovo and compare it with the countries of the region and Estonia. Qualitative and quantitative analysis can support one another in a qualitative research. Tables and figures will be used to present data findings in a simple form in qualitative research. Most significant findings of the questionnaire will be presented with figures. The figures will illustrate the importance and frequency of the specific subject discussed. After analyzing data in the industry, the results will be compared with neighborhood countries. Literal transcription will be used as the basis for analyzing the results of the interviews. In order to assess the level of customer satisfaction and utilization of digital services, the research on the perception of the customers (in the groups) will be done through online questioners.

3.4 Presumptions and limitations

Sample size limitation and lack of prior research studies on the topic present the main limitations of the research. Since there will be needed to respond to the online questioners by different groups of customers, collecting the sufficient number of respondents may be a challenge. There will be the need to encourage more people to participate. This will not be the case with interviews due to the fact that interviewers (bank managers) are colleague of mine and there is a low number of banks (10). Another limitation might be the fact that research will focus mainly to millennials and no other age groups. Another limitation might be the fact that research will be focused mainly in Kosovo.

4. EXPECTED FINDINGS AND RESULT

Results of this study are expected to prove that banking industry in Kosovo is not meeting the increasing demand of costumers for fast and convenient digital service. Also, the results are expected to prove that Kosovo is lacking behind in digital development and innovation compared to its neighboring countries. The above mentioned results are expected mainly due to the following two factors:

- neighboring countries have done the significant shift from optimization – streamlining and automation – to new products and services - creating new revenue streams in banking processes and
- Banks in Kosovo didn't have enough elaborated, comprehensive vision of application of fintech solutions, greater use of digital payments, the opening up of banking thanks to API built architectures, the first significant progress with blockchain technology, and the harnessing of AI and RPA solutions.

Digital consumer (so called millennial) has less patience for being 'forced' into a physical branch to open a new account and is comfortable with managing more of their life on a digital device. Kosovo banks should follow the trends of banks in the EEC that provide customers the ability to open accounts starting and ending on online or mobile devices. That would lead to modernization of banking services and the increase of efficiency in the banking sector of Kosovo.

5. CONCLUSIONS

Throughout the world, banking services are undergoing a significant transformation through new technological opportunities transitioning from manual services to virtual or electronic services. This transformation or modernization of banking services occurred in Kosovo as well, having the commercial banks invested significantly in advancing these services during the past 15 years by providing opportunities and access to banking services in a faster, cheaper and safer way. However, even though banks in Kosovo have necessary infrastructure they lack innovative vision and flexibility. In an attempt to harvest the best of technology to the increased benefit of clients, banks should pursue holistic approach which places the client at the very center of the banking ecosystem and provides them an integrated experience across all the channels. To be ahead of the competitors in the regional markets, like the fintechs, new technology companies, banks in Kosovo need to make quick steps to keep the customers and improve financial services through digital channels and electronic platforms. In order to achieve this banks bank should begin with organizational development in the following aspects: the exploration of data and information, optimization of processes and costs, connecting data to the business, managing rising data volumes (data mining), analyzing costumer behavior (CRM), clustering of clients, automation of processes, designing tailor made solutions and packages for specific group of clientele and growing number of regulatory requirements. While this gap is an obvious macroeconomic and social challenge for Kosovo, there is certainly an attractive opportunity for financial institutions to grow their business by building efficient and technology-driven business models. Banks in Kosovo should increase the partnership with fintechs, open their API's, improve integration of delivery channels, expand digital payment capabilities, explore advanced technologies (IoT, Voice, blockchain, wearables, etc.), simplifying the customer journey, improving data analytics capabilities and use of insights and finally redesign/enhance digital experience for consumer.

To conclude, in all its aspects the future of banking is the digital future and banks in Kosovo are no exception. Customers aim to have their information readily available, and in the easiest and safest way possible. Innovation will continue to transform banking and enable the development of new ways of performing transactional banking. Millennials want to perform banking activities with minimal fuss and they rely on technology to help them do it. Forty-seven percent of millennials use mobile banking (Junio and Javelin Strategy & Research, 2018), twice the number of baby boomers (born 1946-1964). Millennials are also the fastest to change the bank due to a frustrating

user experience (Jumio and Javelin Strategy & Research, 2018), thus bank must to make quick steps to invest on financial services through digital channels and electronic platforms. Millennials lead the way in adoption of digital banking and they will drive the digitalization of finance.

REFERENCE LIST

1. Prahalad C. K, Ramaswamy V. (2004). The Future of Competition: Co-Creating Unique Value With Customers
2. Central Bank of Republic of Kosovo (2019, January 15). Monthly Statistics Bulletin. Retrieved from https://bqk-kos.org/repository/docs/2018/CBK_MSB_November%202018.pdf
3. Central Bank of Republic of Kosovo (2019, February 12). Monthly Statistics Bulletin. Retrieved from https://bqk-kos.org/repository/docs/2018/CBK_MSB_208_en.pdf
4. Ministry of Economy and Finance of Republic of Kosovo (December 2010). *Semi-annual Macroeconomic Bulletin*. Retrieved, July 2010, from: <http://mef-rks.org/en/download/macroeconomic-bulletin/3601-semi-annual-macroeconomic-bulletin>
5. Dimovski, V., Kerlavaj, M., Kimman, & M., Hernaus, T., Comparative analysis of the organisational learning process in Slovenia, Croatia, and Malaysia, Expert Systems with Applications (2007)
6. Mizintseva, M. & Gerbina, T. (2010). Knowledge Management Practice: Application in Commercial Banks
7. Nonaka, I., Toyama, R., & Hirata, T. (2008). Managing flow, a process theory of knowledge based firm. Basingstoke, UK: Palgrave Macmillan.
8. Zineldin M., Vasicheva V. (2015) Banking and Financial Sector in the Cloud: Knowledge, Quality and Innovation Management. In: Soliman F. (eds) Cloud Systems in Supply Chains. Palgrave Macmillan, London
9. Remenyi, D., & Williams, B. (1995). Some aspects of methodology for research in information systems. *Journal of Information Technology*, 10, 191-201. <https://doi.org/10.1057/jit.1995.23>
10. S. Brunbulli (2017). Albanian Association of Banks, Electronic Banking Innovation in Albania.
11. King, B., (2013) Banking 3.0, Singapore
12. Samiotis, K., (2004), The organizational implementation of Knowledge Management 'solutions': Towards a framework based on Sense Making and Organizing Visions, Athens.
13. Liu J., & Abhishek V., (2015), The influence of mobile channels in customer behavior in omni-channel banking services.
14. Broeders H. & Khanna S., (2015). Strategic choices for banks in the digital age.
15. Galliers R.D., (1994), Information systems management and strategy formulation: the 'stages of growth' model.
16. J.F.Luftmann, (2001). Assessing business-IT alignment maturity, communications of the ais - CAIS. 10.4018/9781878289872.ch006
17. Mizintseva, M. & Gerbina, T. (2009). Knowledge management practice, application in commercial banks
18. Sorokina, A. (2017). MSME finance gap: assessment of the shortfalls and opportunities in financing micro, small, and medium enterprises in emerging markets.
19. European Commission Liaison Office to Kosovo (2014), Report. Prishtina. Retrieved from https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/pdf/key_documents/2014/20141008-kosovo-progress-report_en.pdf
20. Kosovo Banking Association, (2015). The Kosovo Banker, Modernization of banking services, Pristina. Retrieved from: Retrieved from: <https://www.bankassoc-kos.com/Al/publikimet/> Kosovo Banking Association, (2018), The Kosovo Banker, Progress through innovation, Pristina. Retrieved from <https://www.bankassoc-kos.com/Al/publikimet/>
21. Brunbuli S., (2017). Albanian Association of Banks, digital innovation of banks in Albania,
22. Kosovo Banking Association, (2016). The Kosovo Banker, digital banking services in Kosovo, Prishtina. Retrieved from <https://www.bankassoc-kos.com/Al/publikimet/>
23. Alvesson M. (1995). Management of Knowledge-Intensive Companies, Berlin/New York: de Gruyter.
24. Pink D, (2006). A Whole New Mind: Moving from the Information Age to the Conceptual Age
25. Burton & Ramiller, 1997. The Organizing Vision in Information Systems Innovation, *Organization Science*/Vol. 8, No. 5.
26. Boutelier, Gassmann and Zedtwitz, 1999, Managing Global Innovation, Springer.
27. Nonaka, I. (1994), A Dynamic Theory of Organisational Knowledge Creation' *Organisation Science*.
28. Easwaramoorthy, M. & Zarinpoush, F., (2006). Imagine Canada, 425 avenue University, Toronto
29. Rumelt P. (1974), Strategy, Structure, and Economic Performance, Harvard University Press, Cambridge, MA.
30. Kosovo Agency of Statistics, (2017). Results of the survey on use of Information and communication technology report. <http://ask.rks-gov.net/media/3831/tik-2017-ang.pdf>
31. Deuber G. (2018), Kosovo: The Outperformer in Southeastern Europe, Head of Economics/Fixed Income/FX Research at RBI in Vienna. Retrieved from: <http://www.discover-cee.com/kosovo-the-outperformer-in-southeastern-europe/>
32. Central Bank of Republic of Kosovo (2018). Raportimet e bankave sipas "Rregullores për raportimin e statistikave të instrumenteve të pagesave", Janar 2018

APPENDIX A: QUESTIONNAIRE

Main purpose of this study is to understand and find the ways and means to accelerate the level of digitalization of the banking services in Kosovo and compare with the neighborhood countries.

The main objective of the research is to demonstrate, how the application of the ICT in the banking industry creates opportunities for banks and its customers.

General Questions

Q1. Gender

<input type="radio"/>	Male
<input type="radio"/>	Female

Q2. Age group ?

<input type="radio"/>	18-29
<input type="radio"/>	30-49
<input type="radio"/>	50-64
<input type="radio"/>	65 and older

Q3. Education

<input type="radio"/>	Illiterate
<input type="radio"/>	High school
<input type="radio"/>	Degree
<input type="radio"/>	Masters degree
<input type="radio"/>	Other (please specify): _____

Q4. Profession

<input type="radio"/>	Govt employee
<input type="radio"/>	Private employee
<input type="radio"/>	Business
<input type="radio"/>	Self employee
<input type="radio"/>	Student
<input type="radio"/>	Housewife
<input type="radio"/>	Others (please specify): _____

Q5. Monthly income

<input type="radio"/>	Up to 10,000
<input type="radio"/>	10,000-15,000
<input type="radio"/>	15,001-20,000
<input type="radio"/>	20,001-25,000
<input type="radio"/>	25,001-30,000
<input type="radio"/>	35,001-40,000
<input type="radio"/>	40,001 and above

Q6.How do you choose your bank ?

<input type="radio"/>	When picking the bank I value convenient in-person banking
<input type="radio"/>	Positive previous experience
<input type="radio"/>	Referrals from family or friends
<input type="radio"/>	Branches in close proximity
<input type="radio"/>	Digital capabilities (level of the digital services provided)

Q7.What is your preferred channel of doing banking transactions?

<input type="radio"/>	Online
<input type="radio"/>	ATM
<input type="radio"/>	Bank branch
<input type="radio"/>	Mobile banking
<input type="radio"/>	Telephone agent

Q8. What are the most important reasons for you to bank online ?

<input type="radio"/>	Convenience
<input type="radio"/>	Curiosity
<input type="radio"/>	Better rates
<input type="radio"/>	Safe and secure
<input type="radio"/>	Low service charge
<input type="radio"/>	Easy to maintain my banking transactions activity
<input type="radio"/>	Other

Q9.How frequently do you use the banking services per month?

	I never use this service	Less than 1 time	1 to 3 times	3 to 8 times	8 to 12 times	Over 12 times
Visiting the bank branch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telephone banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10.How do you prefer to interact with the bank digitally?

<input type="radio"/>	Through mobile phone ?
<input type="radio"/>	Through tablet ?
<input type="radio"/>	Through lap-top ?

Q11. What online banking operations do you use the most?

	Visiting branch	Telephone banking	Online banking	Other (mail, ATM, etc.)
Pay bills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consult balance/bank statements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Print bank slip or statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Open an account	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bank transfer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Investments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Savings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insurance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loans and Mortgages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contact your bank advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12. Do you trust banks that only operate online?

<input type="radio"/>	Completely
<input type="radio"/>	Somewhat
<input type="radio"/>	Dubious
<input type="radio"/>	Not at all

Q13. Do you trust the security of online banking services?

<input type="radio"/>	Completely
<input type="radio"/>	Somewhat
<input type="radio"/>	Dubious
<input type="radio"/>	Not at all

Q14. Do you think that human contact is important for banking relation?

<input type="radio"/>	Completely
<input type="radio"/>	Somewhat
<input type="radio"/>	Unsure
<input type="radio"/>	Not at all

Q15. What are for you the 2 main disadvantages of online banking?

<input type="radio"/>	Overall difficulty of using online banking system
<input type="radio"/>	Lack of assistance
<input type="radio"/>	Security concerns
<input type="radio"/>	Limited service (doesn't enable all banking operations)
<input type="radio"/>	Impersonality of the service
<input type="radio"/>	Dependence on internet service
<input type="radio"/>	Unreliable
<input type="radio"/>	No Disadvantages

Q16.What are for you the main 2 disadvantages of visiting a bank branch?

<input type="radio"/>	Waiting
<input type="radio"/>	Distance (proximity problem)
<input type="radio"/>	Opening times
<input type="radio"/>	Quality of services
<input type="radio"/>	No Disadvantages

Q17.What would encourage you to use more the online banking services? (Several answers possible)

<input type="radio"/>	Rewards (discounted fees for certain services)
<input type="radio"/>	Simpler/clearer service
<input type="radio"/>	Higher security
<input type="radio"/>	Phone aid when setting up
<input type="radio"/>	Free transactions
<input type="radio"/>	Nothing else, I already often use online banking services

Q18.Why have you never used online banking services? (Several answers possible)

<input type="radio"/>	Do not have Internet at home
<input type="radio"/>	Don't trust internet services when it comes to managing my money
<input type="radio"/>	Online services don't enable me to do what I want to do
<input type="radio"/>	I prefer to have personal human relation
<input type="radio"/>	Find the process to difficult
<input type="radio"/>	Other, please specify: _____

Q19. How do you think banks can improve their relationship with customers through the use of the INTERNET? (you may choose more than one option)

<input type="radio"/>	Differentation through lifestyle appeal
<input type="radio"/>	Monitoring internet usage to ascertain which features are popular and liked
<input type="radio"/>	Better communication through easily dispersed and answered e-mail
<input type="radio"/>	Other, please specify: _____

Q20. Do you think online (digital) banking will replace traditional banking methods? (please write your opinion in the box provided below)?:

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Q21. What benefits do you get from the online/digital services? (you may choose more than one option) ?

<input type="radio"/>	Convenience
<input type="radio"/>	Empowerment (to carry out banking transactions without asking any help of bank staff and visiting branch)
<input type="radio"/>	Better service
<input type="radio"/>	Lower cost and better rates
<input type="radio"/>	Other, please specify: _____