

# IMPACT OF FOREIGN CAPITAL AND INFORMATION & COMMUNICATION TECHNOLOGY ON THE MACEDONIAN BANKING SECTOR EFFECTIVENESS

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## ABSTRACT

Modern technology related to products and services based on knowledge reduces the distance between clients and banks which results with focusing on offering of new electronic (online) banking products and services. Today, more and more the question is raised: At what stage each of the electronic or physical market model is more appropriate for banking operation as a function derived from the characteristics of the transaction? The Internet, the quick communication, the coordination and the collaboration help banks to cut transaction costs through virtual integration with their clients. Foreign banks entry significantly enables information and communication technology (ICT) and know-how transfer and introduces new financial products and processes to the local market. Contemporary ICT leads to reduction of transaction chains and separation of some of the operational activities of the banks, i.e. towards more efficient models of banking operation.

Primary goal of the paper is to demonstrate why in the contemporary banking operations as a result of the foreign direct investments (FDI) and new ICT, commercial banks will prefer electronic versus physical offers of products and services and shall try to outsource their basic business activities, i.e. utilize services from external operators. The paper deals with the challenges with which the Macedonia's banking sector is faced as a result of the FDI and new ICT, and is particularly oriented towards selection of the electronic versus physical transactional banking practices and increased need of use of outsourced banking services.

Analytic and field research was used for the preparation of the paper. Additionally, surveying as well as analysis and synthesis methods have been applied. Internet was used as a major tool to approach data and literature. Tables and graphical methods have been employed for visual presentations during the research.

**KEYWORDS:** electronic, online or physical banking system, foreign direct investment, information and communications technology, outsourcing of banking operational activities

## JEL CLASSIFICATION CODES

G210, O31, O33

## 1. INTRODUCTION

Basic goal of every bank is to generate higher profit i.e. enable permanent growth and development during its operation. The profitability of banking business is the key source in generation of capital and basic indicator for quality in the banking management and the strengthening of banks' competitive position on the market. However, today due to ever wider liberalisation and entering the foreign direct investments (FDI) both on global financial markets and also on the market in the Republic of Macedonia, the competition between banks has increased and the profit margins have declined.

By dividing the global world with the unified approach in the banking business and increasing level of control of the risk and capital (Basel standards), banks are facing the challenge on how to improve their profitability at increased competition, declined margins, taxes and provisions, and reduced interest rates. How to achieve higher profits and better performances by taking lower risks? In

the world of informational economy, the only solution that banks need to look for is the increase of productivity and reduction of transactional costs, i.e. funding and investing in more efficient ways and models of banking operations compared to their competitors on the market.

The success will be inevitable for every bank that manages to allocate its saved capital in flexible instruments that will be used in a multiple manner with which they will reduce the level of risk during their decision-making process. In this regard the FDI and new information and communications technology (ICT) becomes a very important element in the future development of the Macedonian banking sector.

## **2. FDI INFLOW SIGNIFICANT TOOL FOR ICT AND KNOW-HOW TRANSFER**

Today, foreign direct investment (FDI) is one of the most significant forms of international economic relations between nations. It can also be seen as a principal factor of production and capital internationalization. Foreign investors introduce “fresh” capital and competition, but also provide a high-quality contribution to economic transformation processes; this takes the form of transfers of state-of-the-art technologies, management skills and knowledge, and innovative products. FDI also facilitates international commercial integration by easing access to global markets, knowledge, managerial skills and techniques.

While 2012-2017 FDI levels in central and southeastern Europe countries recorded an overall decrease (25% in 2017 compared with the revised 2016 data), countries in Western Balkans managed, in spite of gloomy expectations, to attract higher FDI levels during the last decade. Additionally, FDI in Europe in the 2018 for the first time in last six years was 4% less than in 2017 caused by a considerable 13% decrease in FDI in Germany and the UK, the two largest economies which jointly account for around one-third of FDI in Europe. (cf. Bninska, 2019). Several factors help explain this gap, declining economic growth across Europe, Brexit uncertainty including non-commercial and economic risks; business as well as labour conditions of these countries. Assets sales to domestic investors in the wake of disinvestment has also diminished the amount of FDI inflow in the EU-CEE region. For example, in Poland UniCredit Bank sold its 32.8% stake in Pekao Bank to the state-owned insurance company PZU and the Polish Development Fund. In Hungary and Czech Republic, too, foreign equity declined due to state acquisitions or domestic investors. (cf. Hunya, 2018) .

Nonetheless, as a result of financial liberalization and market reforms taking place in numerous southeastern European countries (including the Republic of Macedonia), FDI rates have improved substantially in recent years, particularly in the banking sector. According to the data from the National Bank of the Republic of Macedonia (NBRM), the presence of foreign capital in the country has increased each year, including the fifteen of its banks. At the mid of 2019, out of fifteen banks in the country, eleven were majority-owned by foreign shareholders, whereas only five were majority-owned by foreign banks (cf. NBRM 2019 Report). FDI growth in the Macedonian banking system was especially notable during 2007, with the acquisition of several smaller banks with excellent potential, such as the acquisition of Ohridska Banka AD (Ohrid) by Société Générale s.a. (France), the acquisition of KIB (Kumanovo) by the Milestone holding company (Ireland), the acquisition by several Bulgarian banks of Internacionalnaprivatnabanka (now Kapital Banka AD Skopje) and Sileks Bank (now Central Cooperative Bank AD Skopje). In November 2019 Sparkasse Bank Macedonia (owned by Steiermarkische Sparkasse Group and Erste Bank, Austria) became owner of Ohridska Banka AD Skopje.

Today, since there is prevalence of Macedonian banks in predominant ownership of foreign shareholders, for all relevant balance sheet positions (72.7% in the capital and reserves, 72.1% in the assets, 80% in credit activity, 79.6% in financial results), two scenarios are possible: foreign banks will either introduce new “rules of the game” to bring about new, cheaper, higher-quality and specialized products and services to businesses and consumers in Macedonia – or they will embrace and adapt to local modes of operation. Both economic theory and the practical experiences of numerous countries confirm that FDI can be a driving force of economic development, financial stability, modernization, and job growth. However, given that profit generation is the main motive of any foreign investor, FDI may also introduce new financial risks and economic instability.

The benefits of FDI entry into a banking sector are not immediately apparent, nor are they equal in all countries. To cope with challenges resulting from foreign capital entry, maximize benefits and minimize related risks, policy makers need to create and implement transparent, comprehensive and efficient investment policies to:

- help overcome structural issues present in the banking system (especially high capital concentration levels);
- diversify foreign investor entry and the ownership structure of acquired banks;
- clearly divide competencies in line with banking regulations in the countries of investment destination and origin; and
- provide for continuous experience upgrading by taking advantage of lessons learned from developed countries' regulatory authorities (cf. Martinez-Diaz, 2007).

It is generally recognized that the entry of foreign banks creates competitive pressure on local banks, forcing them to be more efficient and offer lower interest rates. However, studies in countries with highly-concentrated and insufficiently-developed banking sectors have shown that foreign capital can fail to encourage competition and may even decrease private sector loan issuance. In these cases, foreign acquisition of local banks with huge market power merely transfers that power to a new owner, and thus profit margins, cost structures, current business strategies and practices remain virtually unchanged.

It is the high concentration of market power in Macedonia's banking sector that makes full realization of FDI-related benefits here quite unlikely. This high concentration is evidenced by the fact that the country's two largest banks – Komercijalnabanka in terms of assets and Stopanskabanka in terms of capital – control over 50% of the local banking market; together with NLB Tutunskabanka, they approve more than 70% of all loans in the country. Namely, as of 30.06.2019 the Group of Large Banks<sup>13</sup> covers 74.3% of total assets, 74.5% of total credit exposures towards nonfinancial entities and 78.5% of total deposits of nonfinancial entities. Ongoing process of undertaking ownership structure of Ohridska Banka AD Skopje by Sparkasse Bank AD Skopje once again confirm the high concentration and lack of competition in the sector (cf. NBRM, 2019). These structural problems can only be addressed by strict enforcement of competition policy, by ongoing reforms in the legislative system and/or by the entry of a major banking group able to "shake up" the current system. Until then, small banks (three banks in Macedonia) will have to recapitalize by selling out to foreign investors or by merging with major banks, further exacerbating the problem.

Another issue related to maximizing FDI-related benefits is whether their presence influences the way local banks handle loans, forcing them to simplify complex loan approval procedures, introduce new financial products, and maintain larger-scale and more efficient loan allocation in general. Experience has shown that foreign banks focus primarily on consumer lending (e.g., auto loans, mortgages) and on the credit card business. Some surveys have shown that, as opposed to local banks, foreign banks tend to approve fewer loans to small businesses; others seem to show that local and foreign-capital banks do not differ greatly in terms of loan issuance. Hence, it is not completely clear whether foreign-capital banks tend to do better or worse when it comes to corporate loan approval. One thing remains certain: foreign bank entry enables know-how transfer and introduces new financial products and processes to the local market. Both of these features are a necessary pre-condition for integrating a market-oriented way of thinking to the activities of local economic agents.

The final issue accompanying FDI entry to be addressed here, is whether it tends to strengthen the country's banking system, helping avoid and overcome financial crises with more diversified portfolios and low costs involved in finding alternative locations for deposits and preventing major capital drains. The relevant theory positively answers this question; however, practice has shown that the entry of notable foreign banks (depending on their size, business strategies and managerial interests) may instead expose the market to larger-scale external and internal shocks. These shocks may be the result of

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<sup>13</sup>The structure of the groups of banks is determined as of June 30, 2019, according to the amount of the assets of the individual banks. A group of Large banks consists of five banks (Komercijalna Banka Ad Skopje, Stopanska Banka AD Skopje, NLB Banka AD Skopje, Halk Banka AD Skopje, Ohridska Banka AD Skopje) that have assets greater than 32.1 billion denars as of June 30, 2019.

economic, financial and strategic development of an investor's country of origin or with an investor's decision to abandon the local market. It is quite logical that major banks – as opposed to smaller foreign banks, private equity funds and hedge funds – will maintain longer-term strategies and be more “loyal” to the local market in case of a crisis.

In terms of management structure, increasing foreign ownership can threaten local banks in terms of losing the key functions of decision-making and control, including strategic planning and risk management. Local supervisors and monetary authorities may have insufficient insight into foreign investors' strategic moves, negatively impacting the country's financial market. As each type of crisis warrants different reactions from local and foreign banks, monetary authorities should encourage the presence of a wide variety of both local and foreign banks in the marketplace.

In light of the above mentioned, it can be concluded that to maximize FDI-related benefits in the Macedonia's banking sector, central government policies must focus on providing continuous growth and development in the country, encouraging the operation of a diversified and competitive banking system, protecting ownership rights, treating all banks equally (regardless of ownership), strengthening relevant legislation, maintaining high-quality auditing standards and their alignment with relevant international standards. Maintaining such policies would also contribute considerably to lowering investment risk in the country, the primary factor considered by potential foreign investors.

## **2. ELECTRONIC VERSUS PHYSICAL BANKING SYSTEM**

As a new way of conducting business, the new ICT, particularly the online banking has major effect on the routine operational activities such as transactions, payments, crediting and procurements. The electronic online banking through the use of computers or through the mobile banking (by the use of mobile phones) significantly reduces the interaction costs and leads towards shortening of transaction chains and towards separation of some of the banks' business activities.

The research, coordination and monitoring costs that banks and other institutions have with the exchange of financial documents, services or ideas are increasingly reduced with the online transactions. Through cutting of transactions and processing cost, the number of branch offices required for serving the same number of clients is reduced. It is assessed that the implementation of one transaction is several times higher in a traditional branch office than the cost for the implementation of the same transaction by using the Internet. As a result, in the today's banking the number of banks which provide online banking services is increasing. For instance, at Macedonian banks the cost for one banking transaction implemented via Internet payment (classic payment via PP30 order implemented through KIBS) varies from 7 to maximum 20 MKD whereas at least 20 up to maximum 45 MKD are needed for the same transaction implemented via the counter<sup>14</sup>.

In the contemporary banking operation, the following issues are of considerable importance: Why commercial banks should prefer electronic offers of their services and products versus physical offers? Which are the reasons for division of bank's business activities when the transaction is moved from the physical to the electronic market?

The influence of ICT through higher standardization, FDI inflows, information flows and increased globalization makes the electronic market a reliable place for transactions. Improved information flows and information compactness mean reduction of research and transfer costs and increase of exchange.

By functioning mostly in legalized monopoly markets, banks have limited opportunities to increase their competitiveness only by changing of their prices. Thanks to the implementation of new ICT, know-how, the Internet etc., new banking services appeared on the market: ATM, electronic money transfer, internet banking, electronic crediting, smart cards, mobile banking and the like. With

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<sup>14</sup> Doctoral thesis of the author (2014) titled: The impact of the information economy on bank risk management - international practices, conditions and prospects in the Republic of Macedonia.

their application the opportunity for bigger diversification and increase of competitiveness on one hand and potential cost savings on the other force the banks more and more to abandon functions that they traditionally had with the classic maintenance of branch offices. The advantage of the cyber branch office over physical one is the fact that it is open for 24 hours, it covers the global market and its variable costs continuously fall (UNCTAD 2007-2008). Additionally, with the implementation of the achievements of electronic banking in their strategies banks can easily adjust to the everyday needs of their clients and the technology development.

Apart from the cost advantages of the e-novelties in the banking business, the new business information systems also require changes in the organizational structure and the functioning of the banks. Many empiric researches have confirmed that the computerization decreases the communicational cost and leads towards flat and compact organization, i.e. towards reduction of the number of hierarchy levels.

According to Coase (1937) an entrepreneur experiments permanently with alternative ways of organizing of economic activities, aiming to achieve the optimum goals. If the internet can really reduce the implementation cost of market transactions, then it is highly probable that only a few transactions will be performed internally and physically whereas the majority of them will be taken over by the market and will be executed electronically.

In order to enter the e-market banks should first ensure that they fulfill all the necessary requirements that enable e-banking transactions. Aiming to generate value from the same application, it is previously required that banks cover certain costs, such as the programming costs, costs of making technology useful in the system of business information, training cost for the employees as well as cost for finding business opportunities for the system and the organizational change for its effective application.

The ability of the banks to apply the new ICT features and know-how from FDI inflow depends on the flexibility of the employees and the existing efforts of the bank to innovate. The first step that every bank should think of in terms of application of e-banking is to contemplate and determine its position with regards to:

- The position that it has on the banking and financial market,
- Current and planned developments of the other players on the market,
- The nature of the services that it delivers compared with the services of its major competitors,
- The type and the size of risks which it will be faced with and can manage during each operation,
- The type of clients it attracts and supports (whether or not they have an opportunity to be connected with the Internet) etc.

Generally, as the e-banking develops and due to the increase of transactional costs for the organization of the physical market banks, fail to take the advantages offered by the e-market and in doing so to make best use of the production factors. Thus, it is more efficient to perform the transaction on the physical market up to the level where the losses and the costs are equal with the marketing costs generated if the transaction is performed via the electronic market. The lower adaptation costs (easier organizational implementation) as well as the high value changes are significant factors for early acceptance of the new architecture. (Bresnahan 2001).

**Table 1: Advantages and disadvantages of the development of electronic online banking systems**

	Advantages	Disadvantages
<b>Financial market</b>	<ul style="list-style-type: none"> <li>- Increased volume and easy approach to information</li> <li>- Increased transparency</li> <li>- Competition and innovation</li> <li>- Increase of the links and economic efficiency</li> <li>- Long-term gains from net employments</li> </ul>	<ul style="list-style-type: none"> <li>- Syndrome off bigger flow of information</li> <li>- Invasion on the privacy</li> <li>- Reduction of employment on mid-term</li> </ul>

<b>Bank</b>	<ul style="list-style-type: none"> <li>- Attendance everywhere</li> <li>- Increased competitiveness flexibility and responsibility towards the clients</li> <li>- Reduction of transaction and distribution costs</li> <li>- Reduction of chain of hierarchy levels and values</li> <li>- Faster approach the new products and services on the market</li> <li>- New business opportunities</li> </ul>	<ul style="list-style-type: none"> <li>- Physical launching and maintenance of websites</li> <li>- Inability to control the entering in the e-banking</li> <li>- Reduction of profit margins</li> <li>- Security of information systems</li> </ul>
<b>Client</b>	<ul style="list-style-type: none"> <li>- Wide choice</li> <li>- Increased quality of services</li> <li>- Personalized financial products and services</li> <li>- Decrease of the theft and fraud risk and Inappropriate account management</li> <li>- 24/7 approach towards financial transactions</li> <li>- Quick answers and e-reports</li> <li>- Lower taxes and provisions</li> <li>- New banking products and services</li> </ul>	<ul style="list-style-type: none"> <li>- Data misuse and privacy compromise</li> <li>- Reducing of face-to-face contacts</li> <li>- Inability for physical check up of information correctness</li> <li>- Waiting in line to access the machines whereas those who are not familiar with the contemporary technology should wait for additional assistance</li> </ul>

**Source: Summarized by the author**

If a bank is engaged in almost every form of traditional banking the internet and the other novelties can really be a threat for the bank. Greatest advantages from the introduction of e-novelties in the banking business have only those banks that have restructured their internal processes, hierarchies and communications with regards to the demands in the digital environment. In the real world many commercial banks, particularly those that have invested money, time and efforts in their traditional banking business due to their cultural inertia will most probably oppose to the changes.

Usually, it is expected that banks and particularly larger banks which control the market are rather cautious in giving up of the market share and the profit margins at least as long as the virtual market is not fully created with enough participants to force their entry in it. Additionally, the new ways of payments can be sensitive to changes due to the tendency towards lower offers and the need for completely different systems that can deliver single financial products to the home of every individual.

Due to high costs (particularly with smaller banks) or due to the risk of information leaking concerning the technology at bigger banks, some banks will prefer the traditional internal organization, especially in the areas in which they possess critical technology. The level of limitations between banks and markets as well as the size and degree of integration is highly contagious in terms of system's history and development. As long as the inefficiencies are not too large the old arrangements will be preserved. (Licht and Moch,1999)

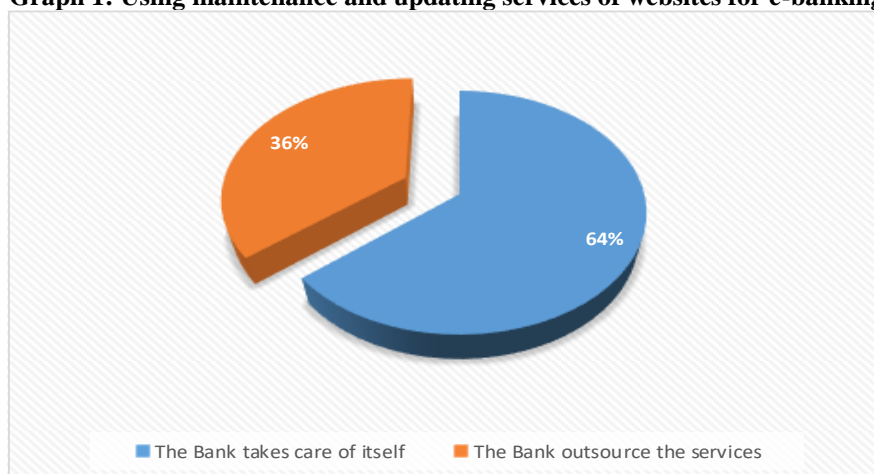
#### **4. E-BANKING AND OUTSOURCING BANKING SERVICES**

Today, given that the most significant impact of e-banking is to reduce the expenses of the mutual activities, in order to increase the efficiency of their activities many banks are forced to abandon part of their corporate functions. Namely, banks increasingly tend to allocate part of their services (which were previously provided by them), or they tend to purchase those services from specialized suppliers (such as: recovery of a claim, call center, IT systems maintenance, marketing, etc.). The advantages of using outsourcing services for their activities (using services from external individuals) include the possibility of commercial banks to cut costs, to focus on the essentials, to offer greater flexibility and higher quality services to enhance performance, provide easy access to specialized and superior expertise offered by external individuals.

The processes of separation of the business activities, which are result of the application of advanced ICTs, bring numerous benefits, but they also bring serious challenges and risks for the banks. The risks of outsourcing can be manifested in loss of control of the banks for certain key functions, and the possibility of opportunistic expropriation of functions by individuals who offer external services. In this regard, banks that outsource face the challenge of increased occurrence of the following types of risks: reputation, credit risk (country risk) operational, regulatory, strategic (business) risk. Therefore, in accordance with the risk theory, according to which every person has a positive attitude towards bringing a concrete decision as long as the estimated benefits outweigh the assessed risks, it can be concluded that banks will start outsourcing as long as the benefits of such decisions outweigh the possible risks.

Based on the conducted field research in the Republic of Macedonia, it was found that the size of the banks is positively linked with the process of separating the business activities in the banks. The bigger the bank, the more it tends to split the business activities. Analyzed by business activities, Macedonian large and medium-sized banks perform most of the business activities such as recovery of claims, marketing, information technology (creation, maintenance and updating of software programs) internally, but at the same time they also outsource those activities. 64% of Macedonian banks have declared that they maintain and update the web site for electronic banking themselves in the conducted survey, as shown in the diagram below. Only 36% of the banks, primarily large and medium sized, have declared that they use outsourcing for the same purpose.<sup>15</sup>

**Graph 1: Using maintenance and updating services of websites for e-banking**



**Source: Summarized results, based on author's research**

Banks as financial institutions and intermediaries generate revenues mainly through interest rates, transaction fees and commissions and through providing financial advices. History confirms that the transaction fees and commissions as well as the financial advices are far more stable banking revenues. Electronic online banking and other similar innovations that the informational economy brings may become a strong mechanism to reduce the prices of financial services having in mind that prices comparison is made by clicking, rather than by walking. (Chavan, 2013)

The bigger the number of clients the greater the supply and pricing between banks shall be whereas the expected minimum price per search shall be lower. If a large part of the banks publish their prices the price differences will be immediately reduced. Garicano and Kaplan (Garicano and Kaplan 2000) claim that when the risk of adverse selection is large (i.e. when the variation in the conditions and quality is bigger), online prices must be lower compared to those on the physical market. As Coppel (Coppel 2000) has emphasized, Brynjolfsson and Smith have shown in their papers that online prices are about 10% lower and even though they had a very large dispersion, online prices have a tendency

<sup>15</sup>Doctoral thesis of the author (2014) titled: The impact of the information economy on bank risk management - international practices, conditions and prospects in the Republic of Macedonia.

to change very often. Consequently, it can be concluded that as more and more financial products and services are subjected to different price rates and as the possibility of price changes rapidly rises, if not its level, the e-banking will alter the price structure i.e. the profit sources of banks.

According to Stigler (Stigler 1961), even the low search costs for the consumer can disable suppliers to keep prices well above their marginal costs on the markets with competitive prices. In the case of e-markets, which provide pricing information with almost zero expenses, the profits of banks can be significantly reduced which on the other hand will increase the welfare of customers. Even though lower profit margins of e-markets can be compensated by the increased volume of customers, their reduction can significantly alienate commercial banks from implementing new business models. On the other hand, as a result of the information and technological development and the increased supply of new banking services, improved management practices and controls, increased separation of activities, etc. banks will permanently seek to cut costs and increase profit margins.

The reduction of transaction fees will lead towards defensive reactions by competitors that engage in e-markets and towards pressure to all of their suppliers or customers to connect to their e-banking system as a prerequisite for cooperation with them. Internet banking exponentially increases the number of registration of new customers i.e. it creates a self-reinforcing cycle, as customers reduce their costs and increase their efficiency in doing business online, whereas simultaneously they increasingly convince their business partners to do the same. Therefore, it is very likely that asymmetry shall occur in the ability of banks to control entries into the electronic market. (UNCTAD, 2007-2008)

The advantage of commercial banks that are ready to introduce ICT innovations in their strategies is that, unlike their competitors, they buy valuable leadership time in conquering their market share. By establishing themselves as market leaders they will occupy a growing part of the profitable segments, they will take advantage of the growing learning curve making them the first beneficiaries of the online electronic banking systems. Having in mind that e-banking services have the potential to reallocate shares in the financial market and to increase the corporate welfare, this may represent an opportunity for its early adopters, but also a threat, for those who are late. In accordance with some studies, cost advantages of 15-20% shall occur by the first successful practitioners. However, the one-way nature of externalities i.e. the fact that the experiences of the early users reduce the costs of subsequent users, in practical terms, this usually creates an incentive to wait.

## CONCLUSIONS

In future, many foreign and domestic banks will have the need for financial means to further capitalize as a precondition for the application of new technical innovations and implementation of the banking (Basel) standards. In this regard, particularly the e-market shall determine the consolidation of the banking sector and release of the non-core activities (outsourcing).

With intensified integration processes in place and Macedonia's bid to join NATO and the European Union, the country may expect increased FDI inflows and enhanced processes of restructuring and market consolidation with the country's banking system. Whether foreign bank presence will result merely in short-term profits or a considerable contribution toward strengthening the country's banking system – including improvement of ICT and know-how i.e. the type and quality of e-services offered – will largely depend on relevant policies and regulations enabling and controlling FDI entry to the Macedonian market.

Challenging for the Macedonian Banks will be how to achieve better performance and higher profits by lower risks? The success and profitability of the Macedonian banks will be largely determined by their ability and skills to allocate every saved capital in sufficiently flexible multiple instruments which will be repeatedly applied and will reduce the risk level in the decision-making process. E-banking, m-banking and e-cards should be on the top of the bank's strategic agenda as innovative tools for achieving better banking performance. Active business policies, application of best practices, methods and management models of credit risk and capital in particular will be needed in order to develop the risk management processes and strengthen the payment systems security.

Economy of Scale will be prerequisite for the long-term profitability and sustainability of the banks. Aiming to mobilize the capital depending on the banking strategies and the intentions on their



shareholders some banks will be able to independently access the organic growth by exploring the available cost-effective solutions whereas others are likely to decide to be merged with or taken over by other banks. If some banks are not ready to introduce changes and channel their own sale as well as to externalize some of their banking activities, other banks certainly will. Banks that do not apply new technology on time (due to high initial costs or other technical problems) face the risk of losing their clients compared to those who first enter the market.

## REFERENCES:

- Bresnahan, Timothy F. (2001) "*Prospects for an Information Technology-Led Productivity Surge*", NBER, Working Paper, version 5/4/01, pp. 1-24
- Brown, Jeffrey (2000) "*Does the Internet Make Markets More Competitive? Evidence from Life Insurance Industry*", John F. Kennedy School of Government, Harvard University, Research Working Papers Series, pp. 1-27
- Bank for International Settlements (2004) "*Foreign direct investment in the financial sector of emerging market economies*", CGFS Publications no.22
- Bank for International Settlements (2005) "*Foreign direct investment in the financial sector - experiences in Asia, central and eastern Europe and Latin America*", Committee on the Global Financial System CGFS Papers no.25
- Chavan, Jayshree (2013) "*Internet Banking-Benefits and Challenges in an Emerging Economy*", International Journal of Research in Business Management (IJRBM), Vol.1, Issue 1, June 2013, 19-26
- Coase, R.H. (1937) "*The Nature of the Firm*", *Economica*, IV, November, pp. 386-405
- Committee on payment and settlement systems (2004) - Survey of developments in electronic money and internet and mobile payments.
- Coppel, Jonathan (2000) "*E-Commerce: Impacts and Policy Challenges*", OECD, Economics Department Working Papers No. 252, pp.2-26
- Detsche Bank Research (2011) "*Update on online and mobile banking*", www.dbresearch.com
- Dynamics of Innovation in E-Banking, S.Singh, S.S.Chhatwal, Y.C.Heng, T.M.Yahyabhoy, ECIS 2002, June 6-8, Gdansk, Poland
- Economic Survey 2004-2005, "*Foreign Direct Investment*", <http://indiabudget.nic.in>, pp. 159-162
- Elena Parnardzieva Stanoevska (2014) "*Influence of the Information Economy on the Management of Banking Risks - International Practices, Conditions and Perspectives in the Republic of Macedonia*" - Doctoral dissertation, pp.1-266
- Gabor Hunya, (2018) "*FDI in Central, East and Southeast Europe: declines due to disinvestment*", Article, www.wiiw.ac.at
- Garicano, Luis and Steven N. Kaplan, (2000) "*The Effects of Business-to-Business E-commerce on Transaction Costs*", NBER Working Paper, No.8017, pp.1-40
- Jacobodies, Michael G. "*Rethinking the impact of information technologies on transaction costs and outsourcing practices*", <http://blue.temple.edu>
- Kapital-Banks and Insurance (2007), "*Banks grow faster than the economy*", pp.4-9  
"*Effects of Foreign Capital Entry into the Banking Industry on the Domestic Economy*", [www.rieti.go.jp/users/peng-xu/project/asia/pdf/kang.pdf](http://www.rieti.go.jp/users/peng-xu/project/asia/pdf/kang.pdf)
- Leonardo Martinez-Diaz (2007) "*Banking Sector Opening: Policy Questions and Lessons for Developing Countries*", The Brookings Institution, Washington, DC 20036, Policy Brief 2007-01 Global Views
- Licht, Gerorg and Dietmar Moch (1999), "*Innovation and information technology in services*", Canadian Journal of Economics, Vol.32, no.2 pp. 303-383
- Libor Krkoska (2001) "*Foreign direct investment financing of capital formation in central and eastern Europe*", Working paper no.67
- Marous, Jim (2013) "*Will the Power of Mobile Make Bank Branches Disappear?*", Paper, [www.limmarous.blogspot.com](http://www.limmarous.blogspot.com), pp.1-10

- Maria Bninska (2019) "*Poland is the FDI leader in Central and Southeast Europe*", Central European Financial Observer ([www.financialobserver.edu](http://www.financialobserver.edu))
- National Bank of RM (2019) "*Report on risks in the Republic of North Macedonian banking system 2019*" pp. 1-71
- National Bank of RM (2019) "*Banking System Indicators and Reports of the Republic of North Macedonian*", [www.nbrm.mk](http://www.nbrm.mk)
- Sangani Priyanka (2011) "*Internet: The reason behind increase in productivity at companies*", ET Bureau, <http://articles.economicstimes.indiatimes.com>, pp.1-8
- Sam Vaknin (2003) "*Foreign direct Investment in Central and East Europe*", <http://www.buzzle.com/editorials/1-27-2003-34454.asp>
- Stigler, George J. (1961), "*The Economics of Information*", The Journal of Political Economy, Vol. LXIX, No.3, pp.213-225
- Transforming Consumer Banking Through Internet Technology (2013)  
[http://www.dynamicnet.net/news/white\\_papers/internetbanking.htm](http://www.dynamicnet.net/news/white_papers/internetbanking.htm)
- United Nations Conference on Trade and Development (2007-2008) "*E-Banking and E-Payments: Implications for Developing and Transition Economies*", Information Economy Report, Geneva, Chapter 5
- Wigand, Rolf T. and Robert I. Benjamin "*Electronic Commerce: Effects on Electronic Markets*", [www.ascusc.org/jcmc/vol1/issue3/wigand.html](http://www.ascusc.org/jcmc/vol1/issue3/wigand.html)