

UNIVERSITY OF TARTU

Faculty of Social Sciences

School of Economics and Business Administration

Inessa Victoria Mültš

LONG-TERM PROSPECTS OF ESTONIAN COMMERCIAL BANKING
SECTOR

Bachelor thesis

Supervisor: Junior lecturer Mark Kantšukov

Tartu 2022

This paper conforms to the requirements for the Analysis paper

.....
(Signature of the supervisor)

Admitted for defence ““.....(date)

I have written this Bachelor thesis independently. Any ideas or data taken from other authors or other sources have been fully referenced.

.....
(signature of the author and date)

Table of Contents

Introduction.....4

1. Banking in the modern world7

 1.1. The current system and functions of commercial banking7

 1.2. A brief review of the alternatives to traditional commercial banking12

 1.3. Financial challenges and changes in the commercial banking industry - overview of previous studies.....16

2. Perspectives and analysis of current situation of Estonian commercial banks - an empirical analysis.....19

 2.1. An analytical overview of Estonian commercial banking19

 2.2. Data and methodology22

 2.3 Results and discussion25

Conclusion34

References.....36

Appendix.....42

 Questionnaire on the long-term prospects of Estonian commercial banking42

Resümee45

Introduction

In order for an economy to grow, the banking system has to function properly. At the moment, financial sectors are striving to be more technologically advanced. To do this, online platforms are increasing communication, applications are being used, and Machine Learning (ML) is being implemented to analyse Big Data and consumer behaviour (McKinsey & Company 2014). The banks have to constantly improve and be innovative in order to stay competitive and remain relevant in the market. A few of the main driving forces in the market are the development of new technologies, changes in customer demands, and new regulations (Tornjanski et al., 2015).

Throughout time, banks have played an essential role in the development of a variety of economies countries infrastructure. (Einhorn, 2001) They have been the core of many countries for centuries and have an impact on the countries well-being. In the past, banks have been protected from competitive influence (Hakkarainen 2018) but now by the European regulation PSD2 (Second Payment Service Directive), customers' banking data will no longer be private but will be available to third parties via Application Programming Interfaces (API) (Holm, 2016). This makes it easier for competitors to gather needed data. This makes the whole banking system open, called Open-Banking (Omarini, 2018).

This all can be also seen in the Estonian financial sector. There are more and more competitors offering new and innovative solutions to make banking easier and more widely available. Estonia has a clear trend where people are increasingly seeking information online rather than offline, and they are spending more time on on-the-go devices such as smartphones and tablets (Milos, 2018). Consequently, traditional banking systems, which focus on personal customer service on-site, may soon become extinct, since people prefer to do everything over the phone instead of going to the bank.

At the moment, few studies were conducted on the long-term prospects of the commercial banking sector in Estonia, and none of them focused solely on the future and the changes that may occur. One of the first studies on this topic in Estonia was done by Sõrg (2003), who analysed the reformation of the Estonian banking system. Polyakova (2018) analysed the adoption of cryptocurrency in Estonia during the last decade. Up until now, the Estonian banks and financial institutions were doing their own forecasts and reports or covered only specific aspect of the banking system, but in this report the author tries to cover all main banks and finance institutions in Estonia.

This bachelor thesis aims to clarify the long-term prospects of Estonian commercial banking, focusing on innovation, competition, and challenges. The aim of the present research study is trying to get the views of CFOs, CEOs, and financial advisors from different financial institutions to determine what the future holds for commercial banks in Estonia. Furthermore, list and analyse commercial banks main competitors and the divisions within which they compete.

To achieve the aim, the following research tasks were established:

- To explain the current concept and functions of commercial banking
- To provide an overview of the alternatives to traditional commercial banks
- To summarize the results of previous studies on the long-term prospects of commercial banking
- To provide an overview of Estonian commercial banking in order to find the current market holders and situation in the banking field
- To elaborate questionnaire for the survey on the future of Estonian commercial banking
- To collect necessary answers from CEOs, CFOs and financial advisors via questionnaires to conduct analysis
- To present and conclude the overall results

As the financial industry faces constant change, it is crucial to understand how they see the future, as well as what changes need to be made in the way they measure things to maintain quality and simplify the current system. Therefore, all these aspects will be covered in the empirical part of this thesis.

This thesis consists of the following sections: In the first chapter, the author presents an overview of the banking in the modern world. This is divided into 3 subchapters: firstly, will be carried out an explanation about the current system and functions of the commercial bank. Secondly the author will review and list all the alternatives to traditional commercial banks and how they differ, and finally a chapter about key findings from previous long-term studies about commercial banking.

The second chapter will be the empirical analysis on Estonian commercial banking. In this first part, the author introduces the current Estonian commercial banking system. In the next section, the author will provide a detailed description of data on how the survey was conducted and what was gathered from questionnaires with CFOs, CEOs, and financial advisors. This will be followed by an analysis and discussion of the results.

The benefit of this research is that it allows a picture of what could be the future of commercial banks in Estonia, what do they need improve and change to stay competitive with arising competitors and alternatives. Further, it could be an interesting read for prospective and current financial professionals.

Keywords: Estonia, commercial banks, long-term prospects, empirical analysis, interviews.

1. Banking in the modern world

1.1. The current system and functions of commercial banking

Banking occupies one of the most important positions in the modern economic world. It is necessary for trade and industry. Hence it is one of the great agencies of commerce.

There has been a radical change in the banking industry over the last few decades. Deregulation and integration of the banking sector, as well as technological advances, among other factors, have led to heightened competition between banks. Banks have been forced to find ways to improve their operations in order to compete with the others (Bank for International Settlements, 2018).

In general, banks can be categorized as commercial banks and central banks. Commercial banks are those which offer banking services for profit. Most commercial banks are categorized as private banks, but some banks are also backed by governments. For example, Russian based bank called Sberbank. Commercial banks can be divided into two categories: retail banks and wholesale banks (Lessambo, 2020). Retail banks provide their customers with basic financial products, such as checking and savings accounts. In wholesale banking, services are sold to large clients, such as major banks, financial institutions, government agencies, and corporations. Control of commercial banks and multiple economic activities is the responsibility of the central bank. The commercial banking industry consists of many different types of banks, including public, private and foreign banks (Massimo, 2019; Muhaisin, 2021; Claessens & Horen, 2020):

- Public banks are banks which has been nationalized by the government of a country. In most cases, the major stockholder is the government. These banks are usually run by the central bank of the country.
- Private banks are banks whose main share capital is derived from individuals and private businesses; they operate as limited liability companies as a result.
- Foreign banks are banks with headquarters in a foreign country and branches all over the world, and they play a crucial role in supporting the economic standing of that country and providing financial services to its citizens.

Commercial banks are an important part of the economy. Not only do they provide consumers with an essential service, but they also help create capital and liquidity in the market. They ensure liquidity by taking the funds that their customers deposit in their accounts and lending them out to others. (Kagan, 2021) Commercial banks are essential to the smooth functioning of a modern economy because they act as an intermediary between

savers and lenders. It would not be an issue if banks no longer existed in their current form due to ongoing advances in information and communications technology. As an alternative, if there were no banks in their current form while continuing financial intermediation is essential in the economy, then we would see the economy degenerate back to a primitive state with corresponding declines in living standards. In order to commercial banks still exist is that they need to follow regulatory compliances. This means that banks need to follow specific laws and regulations made by federal, state or international level and if they do not follow them they can be fined or even blacklisted.

The term “commercial bank” has been defined differently by many economists and researchers. Britannia (2021), one of the economic definition’s pages, defined commercial bank as bank with the power to make loans that, at least in part, eventually become new demand deposits. One of the first definitions was by written Walter Leaf but later reviewed and rephrased by Harrod (1927) as banks are financial institutions that receive deposits from the public through cheques on demand. Oxford reference defined commercial bank as a bank that deals with the general public by accepting deposits from and lending money to many households and small businesses. Comparing modern definitions of commercial banks with those from early literature reveals that the idea of a bank remains the same, that it serves the general public and businesses by offering various services.

Commercial banks have multitude of function, in developed as well as in developing countries. These are called 'General Banking' functions of commercial banks (Barone, 2021). Modern banks perform a wide range of services. They can be categorized into two categories: primary functions, and secondary functions. A list of all the primary and secondary functions can be found in Figure 1 down below. From there, we can see that primary foundations are connected to accepting deposits and granting loans. Deposits are savings, current, and time deposits (Klein, 1971). A savings account, as the name implies, is a deposit that allows customers to save money for unexpected expenses. Since you can always add money to the account and withdraw whenever you want, it is very convenient to use. Current deposit also known as demand deposit is the second type of deposits banks handle. Continuous movement is known to characterize current deposits. A party deposits money with the bank and the depositary has the right to withdraw that money whenever he wishes (Schönhärl, 2017). A time deposit entails locking up the money for a period of time in order to receive the interest in full.

A bank grants loans to its customers with or without security over a specified period of time and at an agreed interest rate. Furthermore, the bank credits the loan amount to the customer's account, from which he can withdraw the money as needed. In addition, commercial

banks offer advances to their customers, as well as cash credit, overdrafts, and discounting (Sharpe, 1990). Commercial banks' primary goal is to maximize profits through providing a wide range of services to individual and business clients. Secondary functions are connected to the agency/management and utility. The aim of secondary functions is to provide a good welfare for people, be in the medium for exchange and capital formation and manage general utilities.

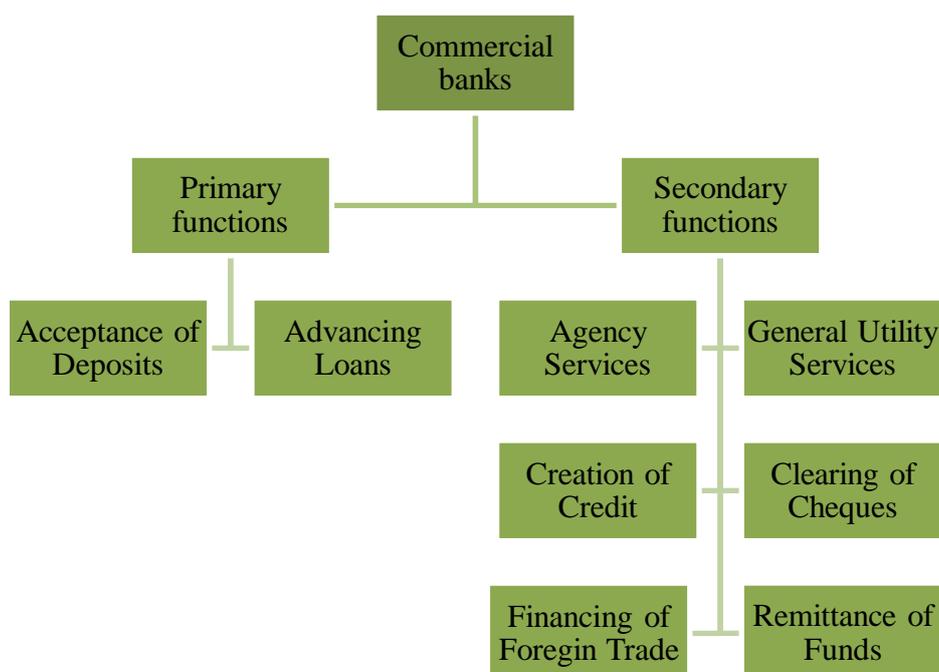


Figure 1. Functions of the commercial bank

Source: Compiled by the author based on Barone, 2021; Klein, 1971; Sharpe 1990

Traditional banking, associated with physical bank branches, is being increasingly replaced by e-banking (Nsouli & Schaechter, 2002). Since the 1990s, e-finance has evolved into a sector of financial services offered using electronic communication channels. It covered the automation of services and the development of self-service interfaces, including online banking, online brokerage services, even mobile banking (Gomber et al., 2018). In order to stay competitive, commercial banks need to be innovative. There are various types of means what commercial bank can cover i.e., Core banking Solution (CBS), Mobile Banking, Internet Banking, EFT, RTGS, MICR clearing etc (Kumbhar, 2011). All of them are listed and explained below (Krishnamoorthy & Shivkumar, 2020; Barnes & Corbitt, 2003; Furst, Lang & Nolle, 2002; Langdale, 1985; Reserve Bank of India, 2021; Chin & Wu, 1995):

- Core banking solution (CBS)- allows customers to conduct common transactions and other services virtually from any location in the world by interconnecting bank branches.
- Mobile banking- refers to the act of interacting with a bank via a mobile device such as a mobile phone or personal digital assistant (PDA).
- Internet banking- refers to the use of the Internet as a means of delivering banking services remotely. These services include traditional ones, such as opening a deposit account or transferring money among different accounts, as well as new ones, such as electronic bill presentation and payment services.
- Electronic funds transfer (EFT)- is a method of transferring money from one account to another.
- Real-time gross settlement (RTGS) can be defined as a system where funds are transferred continuously and in real-time, on a transaction-by-transaction basis (without netting).
- Magnetic ink character recognition (MICR) is widely applied to the processing of bank checks.

The majority of commercial banks today provide a wide range of innovative products and services, but there are some that have yet to catch up and some who are even better. For instance, “challenger banks” such as Monobank, Tinkoff and Revolut are more advanced than other banks. The term 'challenger banks' refers to a bank that is a nonbanking start-up company, which use digital technologies for their operations and challenge big, traditional banks (Polasik, Widawski & Lis, 2020). Challenger banks, also known as Neobanks represent a new stage of banking. like these are focused on providing excellent user experiences to their customers, and their target market is young people who are predominantly part of the millennial generation. All the challenger banks need to have a banking license in order to be considered banks and not Fin-Techs. Revolut is entirely digital and mobile, so it can serve consumers anywhere across Europe. The company provides all its services through a mobile application. Since the company is newly founded and completely online, it does not have to deal with old legacy systems nor deal with unattractive products. A large portion of Revolut’s revenue and size comes from cross-border services (Marszk & Lechman, 2021). In addition, Revolut offers in app crypto, currency and stock exchange, this is something that some banks don’t even offer on their websites yet, not to mention their application. Monobank is a Ukrainian online banking application that was launched in 2017 and works under banking

license from “Universal bank”, another bank from Ukraine. The only branch of Monobank is online; it does not have any physical locations (Bolotova & Shevchuk, 2017). Tinkoff bank was founded as a bank from the beginning and operates as a usual commercial bank. The only difference from traditional commercial bank and Tinkoff bank is that it doesn't have branches (Schugoreva, Minakov, Dyatlov, Putkina & Lobanov, 2019). All of these three banks have same concept. Even though they are more innovative than other commercial banks, they are not as popular as other banks. This can come from the loyalty to a bank people already know or because classical banks are always developing too. They may not have all the features of challenger banks but most of them still offer some kind of a mobile banking. Currency, stock, and crypto exchange are also not that popular and regulated by laws that much at the moment, so businesses and banks do not see the benefit of having them in their applications at the moment, but this can all change in the future.

Traditional commercial banks that want to stay competitive need to adapt to changes and think more about how they can digitalize themselves more. This all means that banks should start focusing more on how to satisfy customer needs the easiest and most convenient way. Change the need to come to office to solve a problem, that would be able to be solved online, in mobile or internet branch. Nowadays, customers no longer consider a payment service to be a banking service; rather, they pay for commodities, send money to friends and family, and pay fines and loans with their cell phone or mobile wallet. Offer more deals and discounts in selected shops, improve banking app (add more languages, easier bot help, add services like loans, investing, payments of bills, insurance, faster EU transactions etc.).

With the rise of innovations like cloud computing and APIs, the banking industry has made a lot of progress when it comes to providing customers with better digital experiences over the past decade (OECD, 2020). In addition, digital banking and technology will play a significant role in commercial banking in the future. Clients of commercial banks are increasingly expecting those institutions to provide them with the same level of convenience, service speed, and digital innovation that they can get from other financial or banking institutions. Providing enterprise clients with the best financial services requires the integration of digital innovations such as machine learning, data analytics, artificial intelligence, blockchain and open banking.

A commercial bank has social responsibilities as well. During the last decade, the commercial banks have been focusing on becoming green banks. A green bank is any financial institution that provides environmental benefits to the country or nation. To achieve substantial economic development and promote environmentally friendly practices, we need

to develop inclusive banking strategies. For example, online banking, reducing cost and energy, automation, establishes a congenial atmosphere both inside and outside the bank. (Lalon, 2015) Embracing green banking strategies can help protect the environment and future generations.

1.2. A brief review of the alternatives to traditional commercial banking

In histories of banking in Europe, the transformation of money-lenders into merchant banks during the 16th century often appears as the origin of modern banking (Cameron, 1972; Hicks, 1969). The alternative banks appeared even before that time. In the 14th and 15th centuries, Catholic orders and monarchs used pawnshops and savings institutions to reduce usury, weaken moneylenders, and promote official currencies (Giannola, 2009).

In the late 1840s, credit cooperatives were founded to avert hunger caused by crop failures and crises. The nineteenth century saw the founding of development banks across continental Europe to accelerate industrialization and finance infrastructure development. (Butzbach & Mettenheim, 2014)

It is imperative to have alternative banks. Alternative banks have large scales and conservative policies that can help firms be more patient with their capital needs and prevent asset bubbles and help households get through hard times. (Mettenehim & Butzbach, 2012)

As defined by Coco and Ferri (2010), alternative banks are banks with a long-term profit orientation. Difference with traditional banking is that despite generating profit in order to sustain operations, alternative banks do not seek to maximize profits. Due to their large size and capital reserves, alternative banks can strike a balance between long-term profitability and mandates that promote social or public welfare. Using and increasing alternatives has become very popular due to the fact that customers want multiple delivery channels, flexible schedules, and convenient locations, neither of which are limited by the clock nor geography.

Some of the alternatives could be universal banks, credit unions, fringe banking, investment banking, and the main competitors, FinTech's. In addition, challenger banks that were mentioned in chapter 1.1 can also be called alternative banks, but due to their banking license they are classified and considered to be under commercial banks. Revolut was once a Fintech, but now it's a bank and is no longer considered a Fintech, even though it's regulated, customer-facing, and operated similarly to a Fintech.

In a universal bank, commercial banks offer loans and payments, but also offer a variety of other financial products. Examples of universal banks would be Deutsche Bank, Hongkong and Shanghai Banking Cooperation (HSBC) and the International Netherlands Group (ING) bank.

Credit unions are self-help cooperative financial institutions whose primary aim is to achieve the economic and social interests of their members and the larger local community. As opposed to most other types of financial services firms, credit unions do not need to simultaneously satisfy shareholder profit expectations and the needs of their customers. Credit unions are similar to commercial banks since both accept deposits and give loans. However, with commercial banks, there is an inherent conflict between depositors and borrowers (the customers) as well as stockholders (the shareholders), because they want to satisfy both sides. Credit unions have lower fees and limited product offers making them not as popular as traditional commercial banks. In addition, credit unions focus only on their members. (McKillop & Wilson, 2010)

A fringe bank charges higher rates of interest than a typical commercial bank. Borrowing from fringe bank is costly and generally credit checks are not required. This banking system is aimed for one-time emergency situations. This makes them more tempting than classical commercial banks to people, who need instant money. However, there are people, who have fallen into fringe bank debt and cannot get out from there since they don't have any more money or items to sell. Rates of interest on short-term fringe loans can range from 400 percent to 600 percent (Martin & Adams, 2012), making them volatile. The fringe banking industry includes payday lenders, pawnshops, car-title lenders and check cashers.

A payday loan is a high-cost, short-term loan that is controversial. The interest rates on payday loans are some of the highest at the credit union (Skiba & Tobacman, 2019). Since these loans are pending on peoples next pay checks, the possibility to use this type of loan again is high.

Pawn shop offers people secured loans and uses people's personal property items as collateral. A Pawnshop is often described as a lender of last resort, patronized by people with limited credit options. Pawnbrokers typically lend around 50% of the value of the item they have pawned (Hawkins, 2011). As long as the consumer repays both the loan and interest within the predetermined loan period, the pawnbroker returns the item to the consumer. Alternatively, the item can be sold, or the consumer can request an extension, essentially taking out a second loan to purchase the item (Maslin, 2014).

Car-title lenders and check cashers are also one of the ways a person can make fast money. Car-title lenders are lenders, who take a person's car as a collateral (Pyles, 2021). Check cashers are people, who cash checks for a fee. This service doesn't require a bank account and is useful for people who are unbanked. Unbanked are people, who don't own any bankcard or account.

An investment banker provides information to individuals, businesses, or even governments about where to invest their money. Since they don't deal with loans and deposits, their target market is quite narrow. They operate only on sales, trading and corporate broking, advice for mergers and acquisitions and conduct research.

Fintech's are a new technology that improves and automates the delivery of financial services. FinTechs and other third parties can build banking services on top of the regulated infrastructure provided by Banking as a Service (BaaS) platforms by connecting their APIs with banks' systems. In addition, compared to traditional commercial banks, Fintech's are highly innovative and focused on digitalization, making themselves more accessible to customers. For example, Fintech talks to customers only in chatbots or has self-service, they don't have branches. In addition, FinTech firms can offer cheaper and better financial services than those provided by banks. However, the trust in Fintech is lower than in banks. Through decades of customer relationships, banks have built trust. FinTech start-ups must be patient and earn customer trust over time. (Stulz, 2019) As an example, Wise (formerly known as TransferWise) is one of the fastest ways to transfer money when you are in different countries and currencies. Also, it is cheap and convenient, but its use is not widely spread among customers. Possibly, this is due to the fact that people do not see FinTech as reliable as banks. Furthermore, Fintech's are not obliged to follow Anti-money laundering regulations, banks need to follow them, making Fintechs see riskier. FinTech's can compete with banks on interfaces with consumers and convenience, but legacy banks have the advantage of having a large customer base, experience dealing with regulators, and a broader offering of products. Moreover, Fintech companies do not have ATMs, which means that if the customer wants to withdraw cash from their account, they need to transfer the funds to their bank account. From Table 1, we can see the summary of all the alternatives mentioned above and what makes them different from the traditional commercial bank.

Table 1.

Summary of all the alternatives

Type of alternative	Difference from traditional commercial bank
Universal banks	They offer more different financial services, combination of all different banking systems
Credit unions	Need of a membership, limited offers, lower fees
Fringe banks (Payday loans, pawnshops, car-title loans and check cashers)	Fast money, higher interest rates, more volatile, higher possibility to be stuck in a loop
Investment banks	They don't lend loans or accept deposits, focused on sales, trading and corporate broking
Fintech's	Rely heavily on technology, have less regulations regarding AML, customer acquisitions is mobile- first, customer service is mostly self-service or chatbots. Fintech's don't have ATMs.

Source: compiled by the author

In terms of cost efficiency, Ayadi, Schmidt and Carbo-Valverde (2009) found that European saving banks appears to be on par with or higher than that of commercial banks. In term of safety, commercial banks are on a higher level than alternative banks. To ensure your online banking experience is as safe and secure as possible, commercial banks have layered security which includes user identification, passwords, secure access codes, and machine identification - making them much safer than alternative banks.

Another example would be risk, alternative banks tend to be less risky than commercial banks. Studies show that cooperative banks and savings banks provide more stable earnings over time than private commercial and investment banks. They are also less likely to default and have fewer non-performing loans. (Ayadi et al., 2010; Ayadi et al. 2009; Beck et al., 2009; Bongini and Ferri, 2008; Garcia-Marco and Robles-Fernandez, 2008; Hesse and Cihak, 2007; Iannotta et al., 2007; Salas and Saurinas, 2002; Esty, 1997) In addition, alternative banks business models are a niche phenomenon, and their impact on the financial system is limited.

To summarize this subchapter, we can say that it is clear that convenience does not always translate into quality when it comes to online transactions. Consumers still greatly appreciate the service experience and the reassurance they receive by dealing with traditional banks. However, the form and function of banks must change to remain profitable. Therefore, the key to success may lie in achieving a balance between the ease of use and versatility of online channels and the intuitiveness and personalization that can be found in offline

channels. In the long run, we will always focus on achieving high levels of customer satisfaction.

1.3. Financial challenges and changes in the commercial banking industry - overview of previous studies

For decades, it has been important to predict the future of banks. There are many research papers examining the future of banking and its prospects. Many of the papers covered the overall situation rather than focusing on any particular country. Although those studies will provide us with the overall perspective on banking in the world, we should conduct a further study of specific countries to determine how they can change their current banking system.

As far as the author knows, there haven't been conducted a lot of studies regarding Estonian banking and the future of it. There are a variety of studies conducted on overall situation in Europe, EEA area and worldwide, but most of these studies are specific topics focusing on banking and financial institutions and not on the overall view on future.

A study conducted by Lasak (2021), associate professor at Jagiellonian University, focused on the situation within the Eurozone commercial banks' sector during the pandemic and the mechanisms of the COVID-19 impact on the sector. His study reveals that the pandemic reversed many of the positive developments occurring since the 2008-2009 global financial crisis and intensified some of the negative mechanisms that were already threatening the banking sector. Furthermore, he believes in long-term prospects the banking industry will have a difficult time standardizing again after the pandemic since new economic circumstances have been implemented and traditional practices have changed. The validity of this finding is further supported by a study conducted by Korzeb & Niedziółka (2020), professors from Bialystok University of Technology and Warsaw School of Economics. Their solution was to reorient current banking strategies in order to prepare for similar situations in the future.

In 2019, Druhov, Druhova, and Pakhnenko, researchers from Lviv Polytechnic National University and Sumy State University, studied the overall banking system in Europe and its prospects for the future. They found out that changes for a better future in the banking industry were related to the improvement of the market for banking services, the format of services organization, and the monitoring systems. The same can be seen in the study by Cardillo, Gallo and Guarino (2021), researchers from the Bank of Italy, that showed that digital innovation drives the reshaping of the banking industry. In a highly competitive

market, digitalization has a profound effect on the whole chain. In addition, banks have to contribute more to green finance and cope with the consequences of pandemics. Banks have to improve and be innovative constantly in order to stay competitive in modern times.

In contrast to studies conducted about Eurozone Chong, Ooi, Lin and Tan (2010), researchers from Universiti Tunku and Louisiana State University, examined the factors that affect the adoption of online banking in the case of Vietnam. The main conclusion from this study is that in order to encourage more customers to adopt online banking, banks need to understand the types of features that current bank customers find useful or will find useful and promote them. Since all countries are becoming more digitalized, this can be applicable to all countries. An analysis of the banking system by Manarat International University researcher Hossain (2019) supports this claim. He also found out that in the next five years, the traditional banking landscape will undergo rapid change thanks to new technology. Safety features like advanced cryptography and biometrics improve security against bank scams and remote access. So, you can conduct your banking online without ever having to visit a bank branch. Increasing automation, digitization, and personalization will enhance banking and make it more accessible to everyone

A summary of previous research papers looking at the future prospects of commercial banks is given in Table 2. The overall view of the world is given, along with the main prospects for the future and what needs to be changed in the current banking system. Panel data is used in most papers due to its accuracy.

Table 2.
Summary of literature overview

Authors	Year	Findings
Łasak	2021	Banking has reversed since 2008–2009, new area banking will have difficulties adapting to post-pandemic time
Korzeb & Niedziółka	2020	Reorient current banking systems
Druhov, Druhova, and Pakhnenko	2019	Eastern Europe lower in digitalization usage and online banking services if compared to Western Europe
Chong, Ooi, Lin and Tan	2020	Consumers are willing to use online banking service if the increase in security and privacy is higher and more protected
Cardillo, Gallo and Guarino	2021	Innovation is the main driver for banking industry, more focus on green finance
Hossain	2019	Increase in biometrics, personalization, automation and digitalization would make the banking industry stronger

Source: Compiled by the author based on the studies above

To summarize the theoretical part, commercial banks are the key for banking system. Their target market is wide including customers such as regular individuals, small and medium enterprises, trusts, governments etc. The main functions of commercial banks are to accept different kinds of deposits and give loans. In terms of innovation, some commercial banks are on a higher level than others, but all of them offer digitalization and innovative products. For example, mobile banking, internet banking, adopted API or cloud software. The main challenge of commercial banks is to keep up with the customer demands and ensure that their bank offers the best service, functions, offers etc. The traditional commercial banks still have a variety of alternative banks and competitors, whom they need to compete daily. Previous studies on this topic suggest to the commercial banks that to ensure their position as the main financial institution they need to work together with their alternatives, find the new possibilities to improve cybersecurity, how to satisfy the customer needs, how to implement new innovative solutions etc.

Taking into account the previous findings of previous research papers on the future of World, European and Baltic area banking, this study will now be limited to studying Estonian commercial banking and analysing its long-term prospects.

2. Perspectives and analysis of current situation of Estonian commercial banks - an empirical analysis

2.1. An analytical overview of Estonian commercial banking

The new chapter for Estonia banking started in 1991, when Estonia was declared independent by Soviet Union. Shortly after that, Estonian central bank (Eesti Pank) was re-established, and The Estonian kroon became the only legal tender in the Republic of Estonia. Currently, the Estonian central bank manages Estonian credit system and oversees financial institutions and banks in Estonia (Zirnask, 2019). In 1992, the Estonian Banking Association (EBA) was established. It is a full member of the European Banking Federation. EBA's objectives include ensuring transparency in the banking sector, developing self-regulation, and improving the banking operations. In 2011, the Estonian kroon was changed to euro. The euro helped the Estonian economy recover from the crisis. The adoption of the euro increased Estonia's economy's trust in the eyes of the EU, which in turn resulted in more investments and new jobs. Additionally, the euro reduced currency exchange costs, made traveling easier, and brought down interest rates on loans. The Estonian banking sector is relatively small, highly concentrated and has a high share of foreign capital. (Nikolayev & Trokhimenko, 2017) As of today, there are over 14 banks and finance institutions in Estonia, offering a variety of banking services. Estonia's financial sector is dominated by the banks. The banks in Estonia hold the same functions as other commercial banks in the world: to accept deposits and give loans. In addition, secondary functions such as welfare to people, be in the medium of exchange and manage general utilities. Below is the list of all the banks that operate in Estonia. (Finantsinspektsioon n.d.):

- LHV bank- established in Estonia.
- InBank- established in Estonia.
- Holm Bank- established in Estonia.
- Coop Bank- established in Estonia
- Big Bank- established in Estonia
- TBB Bank- established in Estonia
- Luminor- established in Estonia
- SEB – established in Sweden, stands for “Skandinaviska Enskilda Banken”, has subsidiary in Estonia
- Swedbank- established in Sweden, has subsidiary in Estonia

In addition to commercial banks, Estonia has affiliated branches of foreign credit institutions. Below is the list of them (Finantsinspektsioon n.d.):

- Citadele banka
- Scania
- OP Corporate Bank plc
- Folkia
- TF Bank AB

As well as cross-border banking service providers. From Figure 2, we can see the market share of banks based by assets as of the end of 4th quarter in 2021. From here we can see that 4 of the most dominant market share holders are Swedbank, SEB, LHV and Luminor. Additionally, Coop Bank and BigBank hold a significant share of shares in the Estonian banking sector. Banks and credit institutions that have market shares under 2% are combined under the "others" option. However, this does not imply that they do not hold any market share at all; they do, but it is a very small portion, not enough to have a percentage.

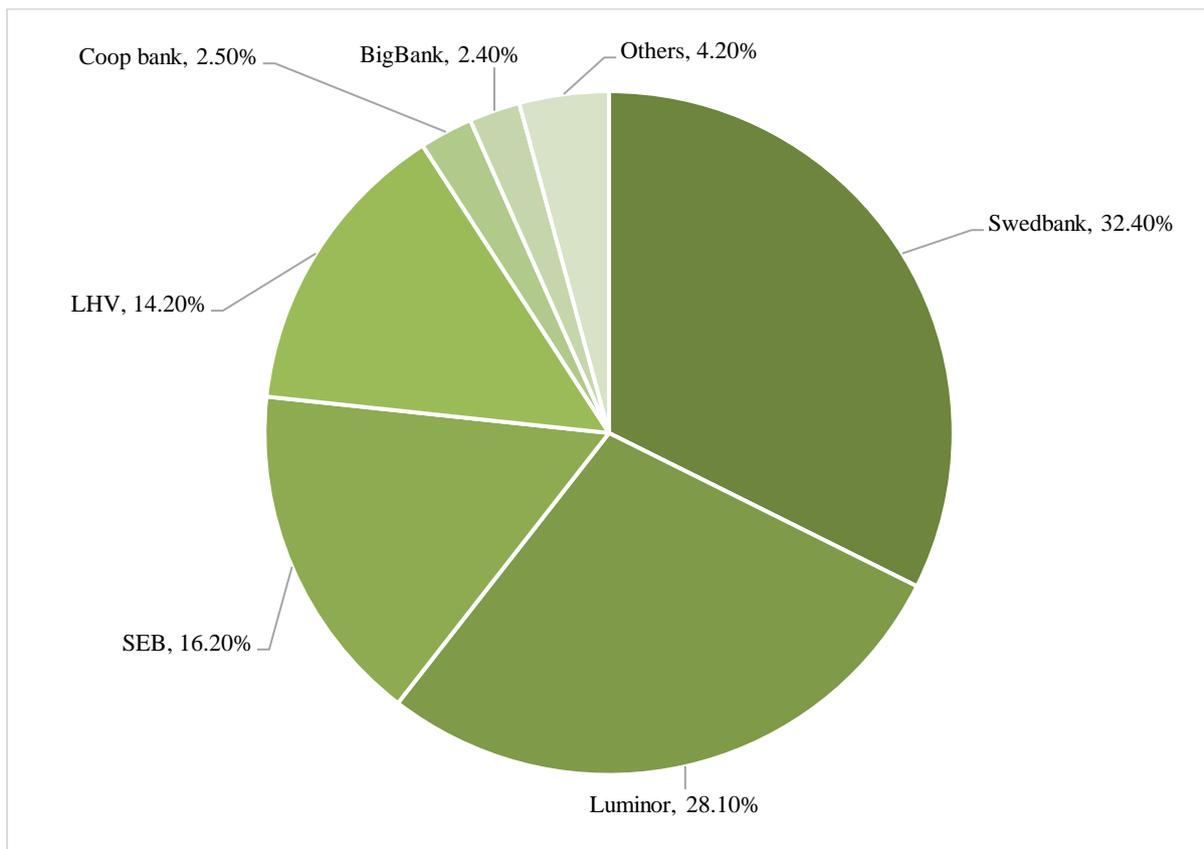


Figure 2. Market share of banks in Estonia based on assets as of the end 4th quarter in 2021. Source: Finantsinspektsioon website

Although Estonia's economy has experienced rapid growth in recent years and the country has generally favourable economic conditions, its local capital market is still small. There is a lack of interest in the local stock exchange and stock market activities remain subtle. The crowdfunding market, on the other hand, has increased and become increasingly popular as platforms promote their services actively through various channels and people are able to invest relatively small amounts. (Diagnostic report on the Estonian capital market, 2018)

Every day more and more alternatives are arising to compete with traditional commercial banking. For example: Funderbeam, Tuum, Wise, Nasdaq etc. Most of these offer online banking, no regulations, fast payment method and wide range of investing options (stocks, crypto, start-ups). Due to foreign banking systems like Apple pay and Revolut, Estonian banks are having a hard time gaining foreign customers, since opening a bank account here is not required if you have Revolut. In addition, because Revolut is fully online, it is easier to use and not required to visit the office. Same goes to Monobank and Tinkoff bank.

During the last years Estonian banks have adapted more and more digitalization options. Online paying option, adding your bank card to apple wallet (for example: LHV card), paying invoices in apps, invest in apps, manage all your bank functions in apps. This has made the life easier and no need to visit the office anymore. You can even order the card into your home and don't have to go to pick it up. This can indicate that more and more people are having access to internet and use it. Furthermore, this can mean that digitalization is becoming more and more important for banks, in order to stay competitive and innovative, because why would people feel the need to visit a bank if they can just do it all online. If the banks don't offer online option, then they will lose to their alternatives.

Currently, Estonian commercial banks have 5 different ways to secure customer identification ID card, Smart-ID, Mobile-ID, pin-calculator, code cards and biometrics. Biometrics identifications consist for example face and finger verification. The most popular, what the author has seen in different bank applications is Smart-ID. Smart-ID allows customers to verify themselves in couple of steps. Smart-ID and Mobile-ID have similar concept, the only difference is that Smart-ID does not require a SIM card and that it is free to use.

LHV and Coop Bank have gone one step further in terms of innovation by offering cryptocurrency exchange on their websites. Cryptocurrency is a hot and popular topic at the moment, so this could bring more customers to LHV or Coop Bank. At the same time, it can

lead to data security and risk problems regarding customers since it's not regulated completely.

One another interesting change would be that LHV Tartu office doesn't operate in cash anymore. Customers can still visit it regarding questions or cards and take money from the ATM's there, but the branch workers don't handle cash anymore. If all the banks would operate like this, then the cash could lose its value. It could lead to either a highly digitalized country or a complete mess. By mess, the author means that if all the places don't accept cash, then for people who do not have a phone, or a card cannot buy anything. Usually these are the people from poorer regions, elderly people or workers who work on envelope salary.

Estonia has also one "challenger bank" called InBank. InBank is a credit union and focuses mostly on different loans: car, travel, renovation etc. InBank doesn't have any branches and functions fully online, same as Revolut, MonoBank and Tinkoff bank.

When it comes to being called green banks, Estonian banks need to improve. Up until spring 2019, Estonian banks, civil society, academia, state institutions, and other stakeholders had not publicly acknowledged the role of finance in sustainable development (Lilleväli, 2019). Shortly after that, some of the banks started to work towards being green and improving their sustainability. Most of the commercial banks have already implemented the ESG (environmental, social and governance) strategy. It is beneficial to work towards green banking, since it's not related only to the environment but also to the future generations.

Research is very underdeveloped in Estonia's banking sector, so the future research will try to examine what and how could be done, what skills are needed to work in banking field in Estonia, what could be improved/ adapted etc.

2.2. Data and methodology

This chapter discusses the methods for the study and describes the data that will be used, the process of it and the framework for the implementation of the received data. The author has chosen both qualitative and quantitative research approach. Qualitative research side is aimed to gather information from higher banking field employees. Qualitative methods allow objective interpretation even when the sample size is small (Kalra, Pathak & Jena, 2013). The benefit of qualitative research is that it goes into depth and details and not into broader opinion. Even though it's beneficial in terms of providing insights to a specific industry and gives the perspective of respondent's view, this method still lacks both practice and theory, as well as a set of methods and practices that are unique to it (Denzin & Lincoln, 2011). Quantitative research method side is collecting numeric data and using multiple choice

and closed-end questions From Table 3, we can see the summary of the previous research papers literature methods used.

Table 3.

Summary of the previous research papers literature methods used

Authors	Year	Methods used
Łasak	2021	literature review, meta-synthesis
Korzeb & Niedziółka	2020	Hellwig method, TOPSIS method, literature review
Druhov, Druhova, and Pakhnenko	2019	k-means methods, graphs, literature review
Chong, Ooi, Lin and Tan	2020	Survey, literature review, multi regression analysis
Cardillo, Gallo and Guarino	2021	Literature review, previous studies conducted
Hossain	2019	Survey

Source: Compiled by the author based on the studies above

Based on all this, the author decided to use questionnaires to conduct the survey. Questionnaires are easy to conduct, are cost-effective, quick way to get information, practical and save time by allowing respondent to answer whenever they have the time to it. Moreover, since the first questionnaire was drafted during COVID-19, the author chose not to conduct interviews and just used the questionnaire option. The final questionnaire what was carried out and answered was at the beginning of April 2022.

To begin with questionnaires were be carried out with CEOs, CFOs or financial advisors, who work in the banking or financial industry. The author chose Chief of Executives (CEOs), Chief of Finances (CFOs) and other financial advisors or economists as focus group, because they have the most in-depth knowledge about banking field and its possible prospects. The needed people were contacted before and asked if they are willing to participate in this bachelor thesis. After this, if they agreed, questionnaire was sent to them and explained how it should be filled, what it will be used for, how long will it take, what is the deadline to answer, and which questions are compulsory, and which are not. More detailed description of focus group can be found in the Table 4 below. The author contacted 15 people, but 2 of them didn't want to collaborate.

Table 4.

Description of the sample

	Workplace	Experience (years)
1	Tartu Savings and Loan Cooperative	10+
2	Luminor	10+
3	Finora capital	10+
4	SEB Bank AS	10+
5	LHV Finance	10+
6	The Bank of Estonia	10+
7		7-10
8	BigBank	10+
9	Ministry of Finance	0-3
10	Ministry of Finance	10+
11	Luminor	0-3
12	Swedbank	10+
13	Swedbank	7-10

Source: Compiled by the author

The questionnaire consisted of 17 questions, both open option and multiple choice once. The timeline for “long-term” was chosen till year 2050, because this the usual time frame, when calculated or speculating about the future, also it seemed long enough to have changes in the field of banking. The questions were compiled by the author. The questionnaire was divided into 4 different blocks, each one consisted of 3-5 questions. In some of the questions, respondents needed to choose only one option, in other they could choose as many as they wanted. This can be seen, when question has more than 13 answers. It started with introductory questions about the persons workplace, years of experience and what does the person think, what are the most important skills to have as a banking professional. Then came the block about the current challenges and innovations done in Estonian commercial banks. Third block was focused on what technology will have an impact in the future if central bank currency can be the future of money and if cryptocurrency should be allowed to trade in banks. Final block was about Fintech’s and whether banks see them as competitors or not. A few of the questions required respondents to provide explanations for their choices.

At the end of the questionnaire, there was an option for participants to leave their name and email address, so when the bachelor thesis is completed, they will be able to read it, and overall, I will know who answered. All the questions and formation of questionnaire can be seen in the Appendix A. Rather than asking specifics about the companies where they

work, the author focused on their overall perspective on the banking industry and what could be the future changes in it.

2.3 Results and discussion

The next section aims at presenting and analysing the main conclusions drawn from the conducted questionnaire, linking them to the theoretical framework, and presenting a few suggestions for the Estonian commercial banks.

The first questionnaire block started out with the introductory questions that are seen in Table 4 above and a question about the qualities one should possess if they are in the banking field. According to Figure 3 below, all respondents consider analytical skills to be one of the most important skills one should possess if they work in the banking sector. An analytical skill set includes the ability to independently think, analyze data, make difficult decisions, and solve complex problems (Darics & Koller, 2019). In addition to analytical skills, most of the respondents also think that stress management and commercial awareness skills can be beneficial to a banking professional. Having these skills can indicate that a person who wishes to go into banking can process information, work under pressure, and mentally process information in a productive manner, at least in the Estonian banking field.

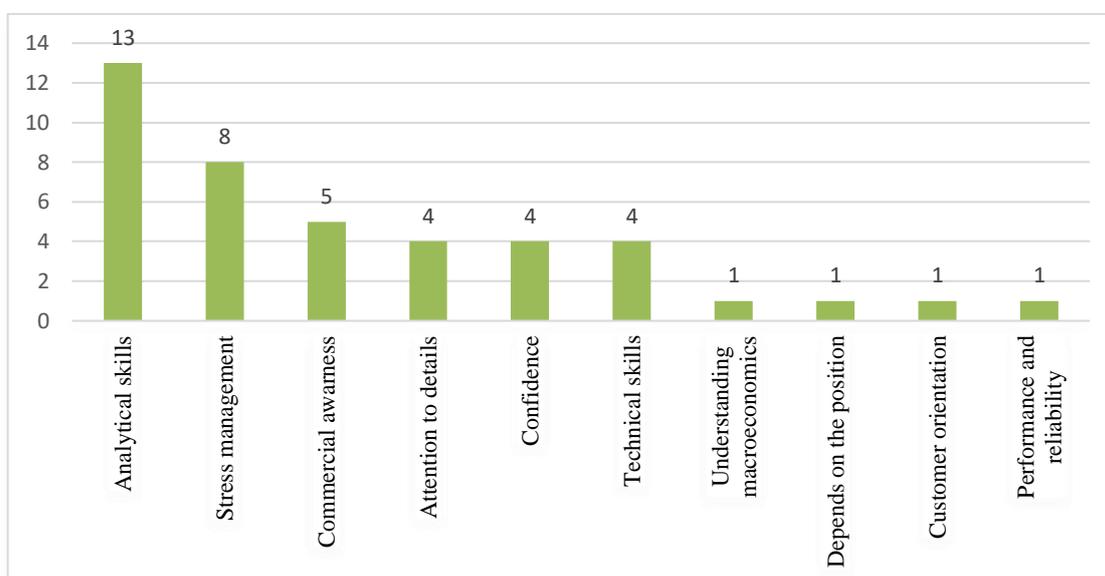


Figure 3. The most important skills needed to work in the banking field.

Source: Compiled by the author

After determining what skills are required, the author proceeded to the second block and to figure out what are the biggest challenges facing banks in Estonia. From Figure 4 below, we can see that the biggest challenges in Estonia are regulatory compliance and cybersecurity, both were chosen 9 times. In theoretical part authors Hossain, Chong, Ooi, Lin

and Tan, authors of two different research papers, found also that cybersecurity is one of the main challenges that banks face currently and will face in the future. Hoissain suggested investing into advanced cryptography and biometrics to improve security against bank scams and remote access. This suggestion could be implemented into Estonian commercial banks too to improve the problems regarding cybersecurity. As said in theoretical part, commercial banks need to follow regulatory compliance in order to function and avoid unwanted fines. Considering that 7 of the respondents identified Anti-Money Laundering (AML) also as a challenge the Estonian banking system faces, it's obvious that it also needs to be improved. Anti-money laundering also known by AML refers to laws and regulations that intend to prevent people who try to disguise illegally obtained money as their legitimate income. Using the recommendations of Kemal (2014), professor in Iqra University, preventing AML requires the allocation of special budget to employees to train in capacity building, collection, maintenance, and dissemination of customer information should be administered properly, anti-money laundering regulations must be transparent, consistent, and timely, transactions must be monitored and global collaboration with anti-money laundering laws must be taken into account.

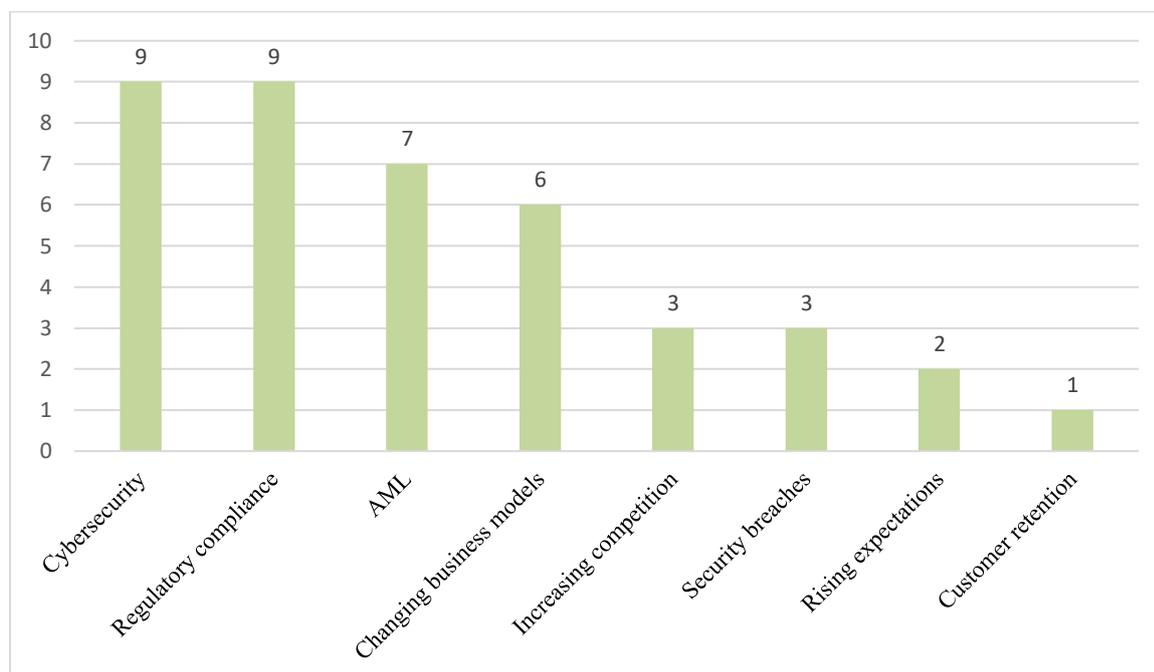


Figure 4. The biggest challenges facing banks in Estonia

Source. Compiled by the author

In the banking industry technological advancements, the widespread application of the Internet, and consumers growing dissatisfaction with traditional banking products and

services has led to significant innovations (Parameswar & Dhir, 2017). In order to remain compete, with either each other or with Fintech’s, banks must come up with something innovative and new, something that will attract new customers and keep old ones. From Figure 5, we can see the second question of this block, the most recent important innovations done by the Estonian banks. Most of the respondents thought that paying with the phone, instants payments and expanding interent banking sector are currently the most important innovations done. It may mean that banks have started focusing more on mobile and internet banking than they were previously. Instants payments, according to one of the respondents, provide most of the functionality needed to implement retail payments without involving card companies. One of the respondents said that in the Estonian banking field there havent been any innovation for the last 10 years. This may mean that if the bank doesn’t innovate itself then in the future the customers will choose some other company or bank that meets their expectations and comfortability. This was also seen in the studies done by Cardillo, Gallo and Guradino (2021) and Druhov, Druhova and Pakhenko (2019) that banking sector needs to improve their digitalization even more to compte with alternatives to traditional banks. In addition, this can indicate that Estonia lags behind other countries in the banking sector. It is possible that Fintech companies or commercial banks, such as Revolut, may steal Estonian bank cutomers in the future.

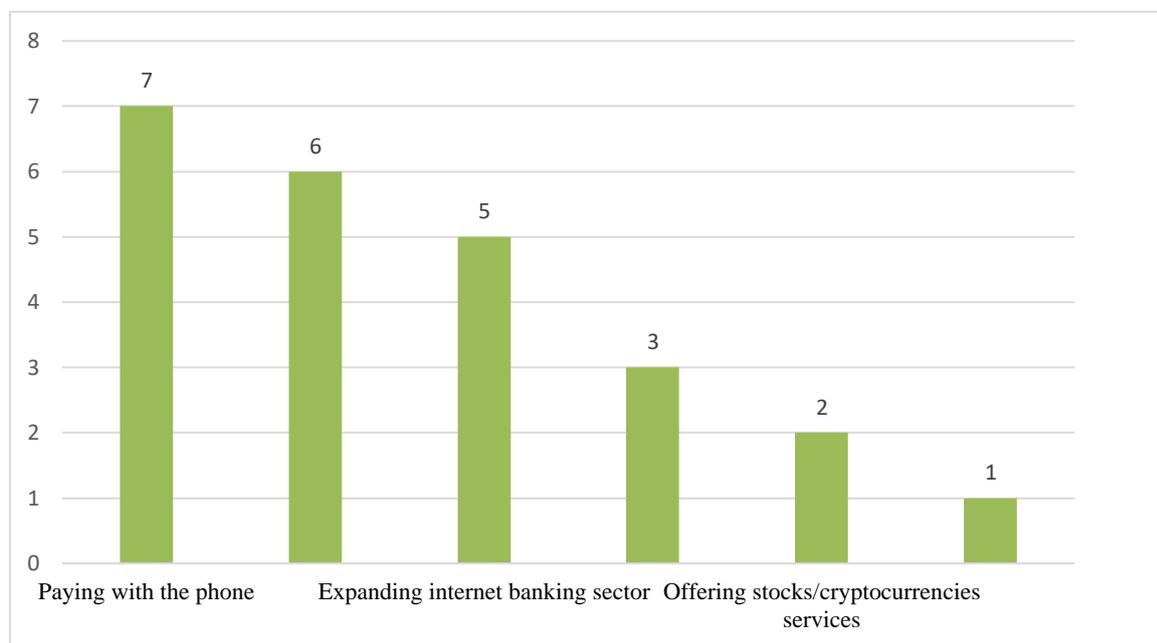


Figure 5. The most important innovation done by the Estonian commercial banks

Source: compiled by the author

The third block focused on the challenges that banks face, cryptocurrency and on the possibility that central bank digital currency would be the future of money. Developing banking technology is influencing the future of global financial services, and the pace of digitalization is changing how people interact and conduct business every day. The future of banking technology is driven by the consumers, most especially millennials and generation Z, who cannot live without technology because it enhances their lives. Therefore, banks need to use technologies to make data available, safer etc.

The author asked the respondents, what technology will have the biggest impact on the banking future regarding Estonia. There were 4 different technologies what to choose from Machine Learning (ML), Artificial Intelligence (AI), blockchain, Application Programming Interface (API) and Internet of Things (IoT). All these technologies allow financial organizations to identify their weak spots and organize work more efficiently.

Machine learning can be used to detect fraud, automate different trading activities and provide advice to investors. AI helps banks to transform customer experiences and to predict future outcomes and possible new trends. AI is already used as chatbots and in overall smoother customer identification. Blockchain technology has the potential to enable banks to settle transactions directly and monitor them more effectively than traditional methods, such as SWIFT (Society for Worldwide Interbank Financial Telecommunication). Application Programming Interface helps banks to act as a modular platform, which allows non-banking business to offer financial services. IoT helps banks to protect assets due to high quality identify verification.

From Figure 6, we can see that Machine Learning (ML), AI and blockchain technology got the biggest number of votes, all got 4 out of 13 respondents. Therefore, it's not clear which one of these technologies will be the most dominant one in the Estonian banking industry but it is understandable that all of them can play a role in it. One of the respondents answered Application Programming Interface (API) as the technology what will have the biggest influence on Estonian banking industry. None of the respondents chose Internet of Things (IoT) as the technology, what will have the biggest impact in the future.

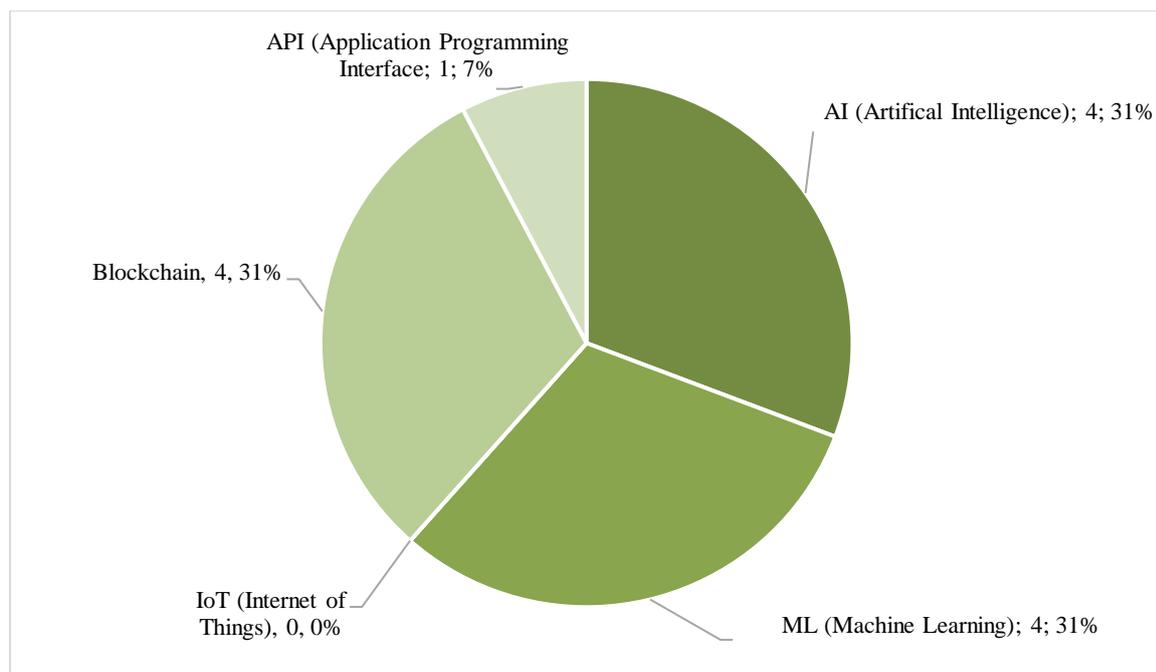


Figure 6. Technology, what will have the biggest impact on the Estonian banking future
Source: compiled by the author

Considering the thesis is aimed at looking at the future of Estonian commercial banks, the author sought to find out what people think about digital currencies, in particular, whether Central bank digital currencies could be the future of money. The use of digital currencies could boost trade and provide numerous opportunities to improve the financial health of countries. 8 out of 13 said that CBDC can be the future of money. One of the explanations was that transactions would be faster and cheaper than in commercial banks and other transaction providing institutions. There is also an explanation that governments and central banks do not want to lose control of issuing money and setting interest rates. That is one of the most influential powers in the world. 5 respondents answered no. They stated that there is a complete loss of privacy, lack of security, and lack of technology. Furthermore, there is no mechanism to maintain a stable value. The implementation of CBDC in Estonia should be done with thought and care, understanding the risks that come with it and how to lower them.

The other currency that the author was rather interested was cryptocurrency. Cryptocurrency is something that has been around for over a decade but have gained popularity. It is currently not too common for banks to regulate crypto platforms. However, banks could benefit from accepting cryptocurrency exchanges as well. For example, Revolut already offers in their application cryptocurrency exchange. It is easy and convenient to exchange there and no need to use any other application for that. From Figure 7, we can see

the opinions of the respondents regarding the question, whether Estonian banks should offer cryptocurrency trading or not.

Most of the respondents said “No”, 6 of the respondents. They justified their argument by saying that cryptocurrency is not yet regulated, Anti-Money laundering (AML) or Counter-Terrorist Financing (CTF) risks, fraud and can lead to loss of assets. Counter-Terrorist Financing has the same purpose as AML, to stop flow of illegal money, but their main target groups are terrorist organizations. Four of the respondents answered “Maybe”. One of them didn’t have a firm view and others said if regulated then banks should offer this possibility. Those who said “Yes”, 3 out of 13, justified it by saying that cryptocurrency is also a form of money and if it allows to bring in more profit then why not. In addition, they also said that then it would be regulated and would follow regulations. Indeed, cryptocurrency can bring in more profit and opportunities to customers, but it can also make them lose money, if they don’t know what they are doing, then they would blame the bank in offering such volatile asset.

The fourth and final block was aimed to FinTech’s. In theoretical part there came out a lot of different alternative banks and their benefits, so the author wanted to find out what is the situation regarding Estonian commercial banks and Fintech’s.

Since digitalization is becoming more and more popular among companies during the last decade. Banks that use or collaborate with fintech get long-term prospects for successful development and high competitiveness. Fintech’s can offer banks technologies and application, what banks have never had or don’t have the possibility to carry out themselves. That’s why the author wanted to know the opinion on Fintech’s from people who work in the banking industry. One of the questions, the author asked, was whether Fin-Tech’s can replace banks in the next decade. 12 respondents out of 13 said no and only one of them said yes. According to respondents, “Yes” means it is possible that commercial banking can be replaced in a large degree, but banks will continue to play a role in the financial system in some way. The other respondents argued that banks are regulated in order to protect their customers and if Fintech’s want to acquire the funds in the form of deposits, then they need to apply for a bank licence. In addition, even though they offer special services, they still don’t have the permission for loans, deposits and they cannot hold the financial system together without the banks. The best option for Fintech’s would be to collaborate and work together with banks, offer them their services. This was also confirmed by Stulz. He also added that if Fintech’s want to be independent then they need to gain customers trust by ensuring safety of the service.

In addition, to the question whether Fintech’s will replace banks or not, the author wanted to find out on a similar topic, what is the respondent’s own company’s attitude towards Fintech’s growing field, whether they are keeping an eye on them, investing, or thinking of investing in them or try to avoid them. From Figure 9, we can see their own company’s attitude toward emerging FinTech scene.

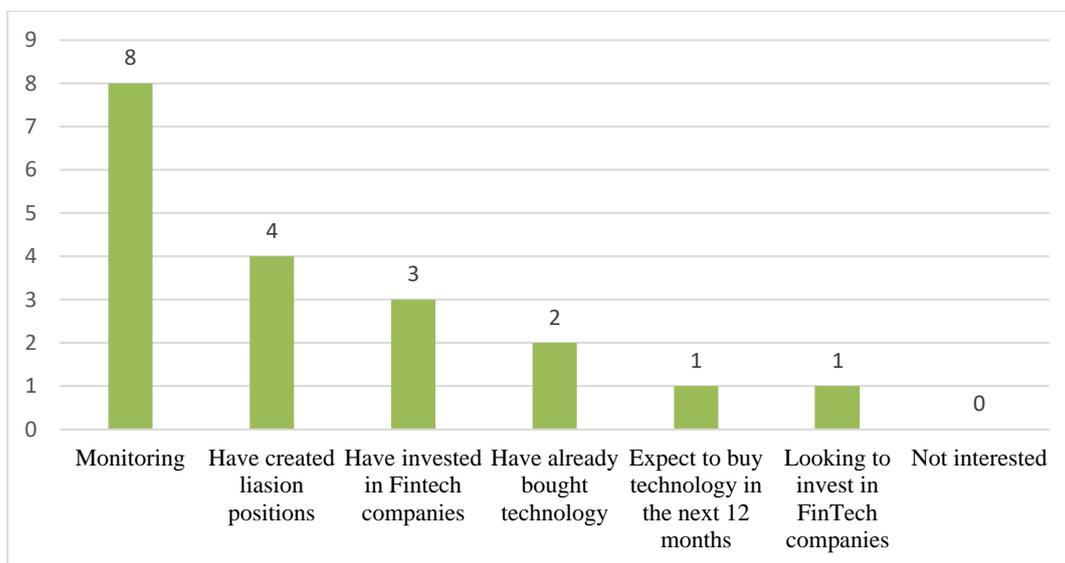


Figure 8. Respondents company’s attitude towards the emerging Fintech scene

Source: compiled by the author

Overall, we can see that most of the respondents are monitoring the Fintech scene and either have or will invest into them in the future. This can only be beneficial for Estonian commercial banks since they lack on the innovation side. Adopting Fintech solutions can help banks become fully digital ecosystem, provide better customer service, functionality, personalization, make their cybersecurity safer etc. It would be more beneficial for banks to use Fintech rather than see them as threats, since Fintech’s are becoming more and more popular. From this also came the question in questionnaire, what are the threats related to the rise of Fintech’s within your industry. From Figure 9 below, we can read that most of the respondents feel pressure of the margins. The potential of unfavourable effects on a company's profitability margins due to internal or external causes is known as margin pressure (Young, 2011). Losing market share can make traditional commercial banks less favourable in the eyes of a customers, since other financial institutions are offering the same thing as them but with better conditions. This does not apply only to Fintech’s but to all alternative banks that were mentioned in the theoretical part of this thesis. Meaning the banks may lose revenue and profitability if other financial institutions steal their clients. In addition,

the rise of Fintech's can bring privacy threat (leakage of customer information, loss of money/assets, bankcard usage in illegal way), increase of customer churn and loss of market share.

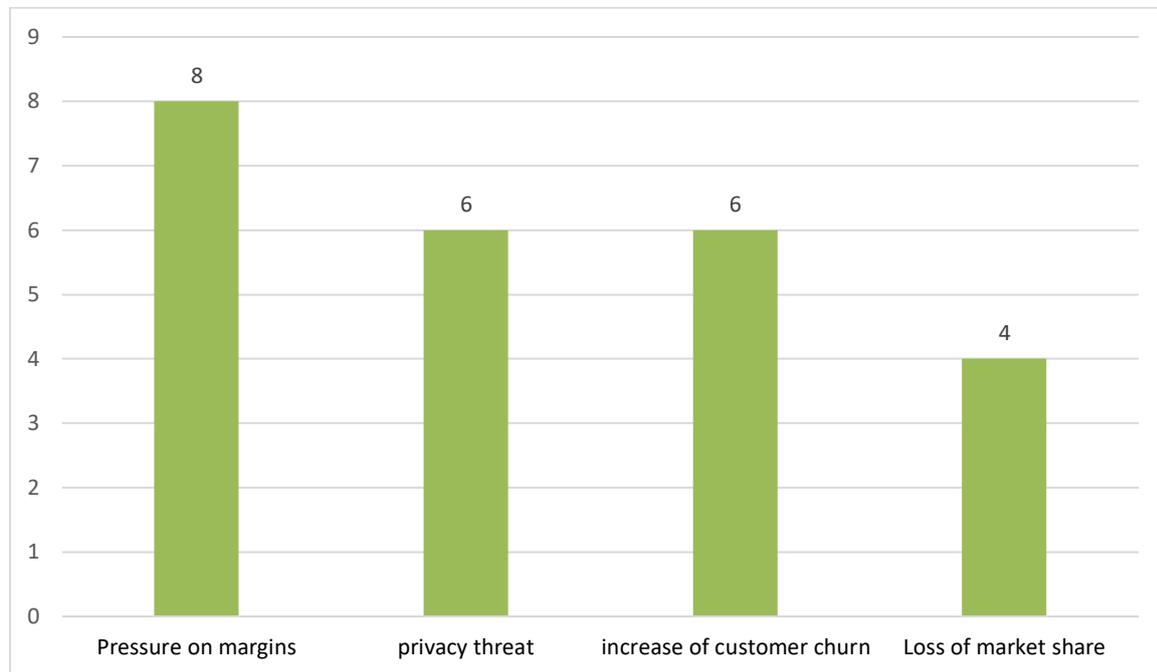


Figure 9. The threats related to the rise of FinTech's within respondents' industry

Source: compiled by the author

Taking into account questionnaire and the entire research conducted, the author will provide possible suggestions for improving the prospects for Estonian commercial banks.

Firstly, as said in both theoretical part and empirical part, the banks need to focus more on innovative. The current version of all the bank applications could be much better and offer even more. For example: Some of them offer stocks or crypto buying in internet banking but in mobile banking there is nothing like that. The author feels, it would be more convenient to add it to mobile banking since most people prefer to use it. In addition, make the verifying and security measurements easier. Currently, if I want to pay or transfer money between banks in one of the mobile applications, I need to go through Smart-ID two or three times. Even though it makes the application more secure, it is quite tiring and bothersome. ID-card, Mobile-ID and other identification methods need even more steps or applications.

Secondly, it would be beneficial and good for image, if banks started to accept more international students for their internships or offer more positions to them. This insight came from my course mates since most of them are from other countries. Every year Estonian commercial banks offer variety of internships, but most of them require Estonian or other

Baltic language. This leads to international students looking for other opportunities and not even thinking about applying to Estonian commercial banks. As banks want to meet unique customer needs, they need to understand the diversity of cultures and experiences in their domestic and international markets. International students could bring new ideas, insights of their cultures that could benefit the Estonian commercial banks.

Thirdly and finally, the author would suggest that Estonian commercial banks focus more on environment and social and government issues. During the next decades, people would like to use more environmentally friendly banking system. Green banking and sustainability will be the terms to look out too. In order for bank to classified as “Green”, they need to reduce energy costs and make a transition to low-carbon economy. This image can help banks to win back lost customers and also attract new ones, that want to contribute to banks’ sustainability and future prosperity (Lymperopoulos, Chaniotakis, & Soureli, 2012).

Conclusion

During the next couple of decades, the Estonian commercial banking needs to undergo rapid innovative changes, in order to stay competitive. This study sought to uncover and clarify the long-term prospects of Estonian commercial banking

Following the completion of the theoretical review, the author of this bachelor thesis discovered many things. First of all, the literature suggested different functions and concepts of commercial banking. Various types of banks and the importance and challenges of the banks were explained. Furthermore, all present activities were defined and classified as primary and secondary, examples of how banks may be more innovative, sustainable, and meet consumer expectations were offered.

Further, chapter 2 started with a brief history of the alternative banks, then followed the list with explanations of the alternative banks that compete with traditional commercial banking system. The key differences, the advantages and disadvantages were brought out, safety and risk in both commercial and alternative banks were compared, and the importance of alternative banks was explained and the challenges that come with them.

The theoretical part ended with analysing and summarising the previous studies. Previous studies indicated that commercial banks still need to focus on innovation, implement higher security in their applications, internet pages and change the way banks operate. In addition, the previous studies suggested that traditional commercial banks could work with alternatives in order to provide the best customer experiences, stay on top as the leading financial institutions.

In this research the author is conducted a questionnaire with important financial workers in order to find what may be the changes and what is the current situation in Estonian commercial banking. Despite the fact that banks hold the biggest sector in Estonian financial system, research that identifies its prospects for the next decades has not been conducted yet.

Empirical part starts with the brief overview of Estonian banking field, the history of Estonian banking system, the list of current banks and finance institutions that operate here is provided and some examples of the current situation (market share), innovations and shortfalls of Estonian commercial banks. For example, some banks have already implemented cryptocurrency and stock exchange, some banks don't have any branches anymore. Next part covers the methodology used to conduct the study. The combination of qualitative and quantitative approach was adopted, in particular questionnaire for smaller sample.

Following the conducted questionnaire, the author discovered that Estonian commercial banks are not performing to their potential at this time. This can affect the long-term prospects since they are already behind. Estonian commercial banks need to implement new innovational services or products, what would draw customers to them, use technologies, what would make their application safer and easier, fight cyber risks, focus on becoming greener and more sustainable than they are now. Furthermore, working together with Fintech's could be beneficial or just to monitor them, so Fintech's won't be able to replace commercial banks. In addition, since cryptocurrency is becoming more and more popular, commercial banks could investigate that field and see what they could offer to their customers.

When it comes to Estonian commercial banks, the possibilities to improve and compete with each other is high, since all of the banks are quite similar and offer almost the same services. Even the applications do not differ significantly, practically look and have the same services in it. Therefore, there is a chance to dominate the Estonian banking field, if one of them does or offers something slightly different. For example: improving their green image, offer cryptocurrency and stock exchange in phone application, implement new verification method, which would be faster and easier than is the current one.

The recommendations for further research on this topic would be to compare to other regions commercial banks, make a wider survey or dive into a specific aspect. For example, innovation implementation, technology usage (online banking, security, softwares), customer expectations, the sustainability growth etc. The present study focused on the long-term prospects of Estonian commercial banking, but it would be an interesting further investigation if it was about the global or specific regions future of commercial banking. A good example is the future differences between Estonia, Latvia and Lithuania in the commercial banking sector. As another example, considering the stability of a country's banking system in relation to other countries within the same region, or how their banking system can handle crises/situations in world that happen unexpectedly (COVID-19, Russian aggression towards Ukraine).

References

1. Ayadi, R., Schmidt, R.H., & Carbó-Valverde, S. (2009). Investigating diversity in the banking sector in Europe: the performance and role of savings banks. *Brussels: Center for European Policy Studies*
2. Ayadi, R., Schmidt, R.H., Llewellyn, D.T., Arbak, E., & De Groen, W.P. (2010). Investigating diversity in the banking sector in Europe: the performance and role of savings banks. *Brussels: Center for European Policy Studies*
3. Bank for International Settlements, (2018). Structural changes in banking after the crisis. *CGFS Papers, 60*.
4. Banking and Credit, Credit institutions (n.d.). Retrieved from: <https://www.fi.ee/en/banking-and-credit/credit-institutions>)
5. Barnes, S. J., & Corbitt, B. (2003). Mobile banking: concept and potential. *International journal of mobile communications, 1(3), 273-288*.
6. Barone, A. (2021). Bank. Retrieved from <https://www.investopedia.com/terms/b/bank.asp>
7. Beck, T., Hesse, H., Kick, T., & Westerhagen, N. (2009). Bank ownership and stability: evidence from Germany. *Unpublished Working Paper (Washington, DC: Federal Deposit Insurance Corporation)*
8. Bolotova, K., & Shevchuk, S. (2017). Fintech for Tigipko. How and with whom Monobank Works.
9. Bongini, P.A., & Ferri, G. (2008). Governance, diversification and performance: The case of Italy's 594. *Brazilian Journal of Political Economy 32(4)*
10. Britannica, T. (2020). Commercial bank. *Encyclopedia Britannica*. Retrieved from <https://www.britannica.com/topic/commercial-bank>
11. Butzbach, O., & Mettenheim, K. (2014). Alternative Banking History. *Alternative Banking and Theory*, pp. 8-17.
12. Cameron, R. (1972). Banking and economic development: Some lessons of history. *Oxford: Oxford University Press*
13. Cardillo, S., Gallo, R., & Guarino, F. (2021). Main challenges and prospects for the European banking sector: a critical review of the ongoing debate. *Questioni di Economia e Finanza (Occasional Papers)*
14. Chin, F., & Wu, F. (1995). A microprocessor-based optical character recognition check reader. *Proceedings of 3rd International Conference on Document Analysis and Recognition, 2*, pp. 982-985 Retrieved from doi:10.1109/ICDAR.1995.602066.
15. Claessens, S., & Horen, N. (2020). Foreign Banks and Trade. *Journal of Financial*

- Intermediation*. 45. Retrieved from 10.1016/j.jfi.2020.100856.
16. Coco, G., & Ferri, G. (2010). From shareholders to stakeholders finance: a more sustainable lending model. *International Journal of Sustainable Economy*, 2(3), pp. 352-364.
 17. Commercial bank. (n.d.) *Oxford Reference*. Retrieved from <https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095627593>.
 18. Darics, E., & Koller, V. (2019). Social Actors “to Go”: An Analytical Toolkit to Explore Agency in Business Discourse and Communication. *Business and Professional Communication Quarterly*, 82(2), pp. 214-238. Retrieved from: <https://doi.org/10.1177/2329490619828367>
 19. Diagnostic report on the Estonian capital market, (2018). Retrieved from: https://www.rahendusministeerium.ee/sites/default/files/diagnostic_report_on_the_estonian_capital_market.pdf
 20. Denzin, N.K., & Lincoln, Y.S. (2011). The SAGE handbook of qualitative research.
 21. Druhov, O., Druhova, V., & Pakhnenko, O. (2019). The Influence of Financial Innovations on EU Countries Banking Systems Development. *Marketing and Management of Innovations*, 3, pp. 167-177. Retrieved from <http://doi.org/10.21272/mmi.2019.3-13>
 22. Einhorn, J. (2001). The World Bank’s Mission Creep. *Foreign Affairs*, 80(5), pp. 22–35. Retrieved from <http://www.jstor.org/stable/20050248>.
 23. Esty, B.C. (1997). A case study of organizational form and risk shifting in the savings and loan industry. *Journal of Financial Economics*, 44(1), pp 57-76.
 24. Furst, K., Lang, W. W., & Nolle, D. E. (2002). Internet banking. *Journal of Financial Services Research*, 22(1), 95-117.
 25. Garcia-Marco, T., & Robles-Fernandez, M.D. (2008). Risk-taking behaviour and ownership in the banking industry: The Spanish evidence. *Journal of Economics and Business*, 60(3), pp 332–354.
 26. Gomber, P., Kauffman, R.J., Parker, C., & Weber, B.W. (2018). On the FinTech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems*, 35(1), pp. 220-265. Retrieved from: <https://doi.org/10.1080/07421222.2018.1440766>.
 27. Hakkarainen, P. (2018). Financial Integration, Competition, and Efficiency. *European Bank Executive Committee Forum*. Retrieved from <https://www.bankingsupervision.europa.eu/press/speeches/date/2018/html/ssm.sp180411.en.html>.

28. Harrod, R.F. (1927). Review of Banking by W. Leaf. *The Economic Journal*, 37(145), pp. 76–81. Retrieved from <https://doi.org/10.2307/2222724>
29. Hawkins, J. (2011). Regulating on the Fringe: Reexamining the Link between Fringe Banking and Financial Distress. *Indiana Law Journal*, 86, pp.1361-1408.
30. Hesse, H., & Ihák, M. (2007). Cooperative banks and financial stability. *IMF Working Paper*, 7(2).
31. Hicks, J. (1969). A Theory of Economic History. *Oxford: Oxford University Press*
32. Holm, J. (2016). Open Banking Transformation. Retrieved from <https://psd2.nl/eindevan-de-bankenwereld-as-we-know-it/>.
33. Hossain, M.I. (2019). Future Banking Technology. Retrieved from https://www.researchgate.net/publication/330351308_Future_Banking_Technology
34. Ianotta, G., Nocera, G. and Sironi, A. (2007) ‘Ownership structure, risk and performance in the European banking industry’, *Journal of Banking and Finance*, Vol 31, pp 2127-49.
35. Kagan, (2021). Commercial bank. Retrieved from <https://www.investopedia.com/terms/c/commercialbank.asp>
36. Kalra, S., Pathak, V., & Jena, B. (2013). Qualitative research, *Perspectives in Clinical Research*, 4(3), pp. 192. Retrieved from: <https://doi.org/10.4103/2229-3485.115389>
37. Kemal, U. (2014). Anti-money laundering regulations and its effectiveness. *Journal of Money Laundering Control*, 17, pp. 416-427. Retrieved from: 10.1108/JMLC-06 2013-0022.
38. Klein, M. A. (1971). A Theory of the Banking Firm. *Journal of Money, Credit and Banking*, 3(2), 205–218. Retrieved from <https://doi.org/10.2307/1991279>
39. Korzeb, Zbigniew & Niedziółka, Paweł. (2020). Resistance of commercial banks to the crisis caused by the COVID-19 pandemic: the case of Poland. *Equilibrium*. 15. 205-234.
40. Krishnamoorthy, B., & Shivkumar, A. (2020). Punjab National Bank: implementing core banking solution. *International Journal of Services Technology and Management*, 26(6), 502-519
41. Kumbhar, V.M. (2011). Alternative Banking Channels and Customers’ Satisfaction: An Empirical Study of Public and Private Sector Banks. *International Journal of Business and Management Tomorrow*, 1(1), pp. 1. Retrieved from <https://ssrn.com/abstract=1969881>

42. Lalon, R.M. (2015). Green Banking: Going Green. *International Journal of Economics*, 3(1), pp. 23-42.
43. Langdale, J. (1985). Electronic funds transfer and the internationalisation of the banking and finance industry. *Geoforum*, 16(1), 1-13. Retrieved from [https://doi.org/10.1016/0016-7185\(85\)90002-8](https://doi.org/10.1016/0016-7185(85)90002-8)
44. Lasak, P. (2021). The Commercial Banking Sector in Eurozone after the Pandemic: The Paths to Recovery. *European Research Studies Journal, European Research Studies Journal*, 0(1), pp. 1233-1246.
45. Lessambo, F.I. (2020). Commercial Banks and Savings Banks: In The U.S. Banking System. Retrieved from: https://doi.org/10.1007/978-3-030-34792-5_6
46. Lilleväli, U. (2019). Seeking Climate Justice in the Financial Sector. Innterpreting the fiduciary duty of Estonian pension funds based on their contribution to reinforcing/tackling climate change.
47. Lymperopoulos, C., Chaniotakis, I. & Soureli, M.A. (2012). A model of green bank marketing. *Journal of Financial Service Marketing*, 17, pp. 177-186. Retrieved from: <https://doi.org/10.1057/fsm.2012.10>
48. Market Shares of Estonian banks (n.d.). Retrieved from: <https://www.pangaliit.ee/welcome-to-estonian-banking-association/banking-information-market-shares-of-estonian-banks>
49. Marszk, A., & Lechman, E. (2021). The Digitalizaion of Financial Markets: The Socioeconomic Impacg of Financial Technologies
50. Martin, N., & Adams, O. (2012). Grand theft autoloans: repossession and demo-graphic realities in title lending. 77(1). pp.41–94.
51. Maslin, S.E. (2014). The Pawn King. *The Atlantic*. Retrieved from: <https://www.theatlantic.com/business/archive/2014/12/the-pawn-king/383289>.
52. Massimo, C. (2019). Necessary Public Investment: The Role of Public Banks. *International Journal of Political Economy*, 48(3), pp. 275-300. Retrieved from 10.1080/08911916.2019.1655955
53. McKillop, D.G., & Wilson, J.O.S (2010). Credit Unions: A Theoretical and Empirical Overview. Retrieved from: <https://ssrn.com/abstract=1702782>
54. McKinsey & Company. (2014). Strategic principles for competing in the digital age. Retrieved from <https://digitalstrategy.nl/wp-content/uploads/McK-Strategicprinciples-for-competing-in-the-digital-age-by-McKinsey-2014.pdf>

55. Mettenheim, K., & Butzbach, O. (2012). Alternative banking: Theory and evidence from Europe. *Revista de Economia Política* [Journal of Political Economy], 32. pp. 580-596.
56. Milos. (2018). Suur uuring – eestlaste interneti ja sotsiaalmeedia kasutus aastal 2018. [Large survey - usage of the Internet and social media by Estonians in 2018] Retrieved from <https://milos.ee/eestlaste-interneti-ja-sotsiaalmeedia-kasutus/Paths to Recovery, European Research Studies Journal Volume XXIV Special, 1, 1233-1246>.
57. Muhaisin, K.A. (2021). The impact of the social responsibility adoption by banks on their outcomes: an applied study on some public and private banks in Iraq.
58. Nikolayev, Y. O., & Trokhimenko, O. A. (2017). Financial stability of Estonian banking system in modern conditions and its role in the national economy. *Вісник Одеського національного університету. Серія: Економіка*, 22(7), pp. 19-22.
59. Nsouli, S.M., & Schaechter, A. (2002). Challenges of the „e-banking revolution“. *Finance & Development*, 39(3). Retrieved from: <https://www.imf.org/external/pubs/ft/fandd/2002/09/nsouli.htm>.
60. OECD. (2020). Digital Disruption in Banking and its Impact on Competition. Retrieved from: <https://www.oecd.org/daf/competition/digital-disruption-in-financial-markets.htm>
61. Omarini, A. E. (2018). Banks and Fintechs: How to Develop a Digital Open Banking Approach for the Bank's Future. *International Business Research*, 11(9), pp. 23-36.
62. Parameswar, N., & Dhir, S. (2017). Banking on Innovation, Innovation in Banking at ICICI Bank. *Global Business and Organizational Excellence*, 36, pp. 6-16.
63. Polyakova, Y. (2018). Estonian State's approach to cryptocurrency
64. Pyles, S., (2021). Car Title Loans. Retrieved from: <https://www.nerdwallet.com/article/loans/personal-loans/car-title-loans>
65. Reserve Bank of India. (n.d.) Retrieved from <https://m.rbi.org.in/scripts/FAQView.aspx?Id=65>
66. Salas, V., & Saurina, J. (2002). Credit risk in two institutional regimes: Spanish commercial and savings banks. *Journal of Financial Services Research*, 22(3), pp. 203-24.
67. Schugoreva, V., Minakov, V., Dyatlov, S., Putkina, L., & Lobanov, O. (2019). The impact of digitaal transformation on geo-territorial restructuring of bank branches. *International Multidisciplinary Scientific GeoConference*, 19(2.1).

68. Schönhärl, K. (2017). Decision Taking, Confidence and Risk Managementt in Banks from Early Modernity to the 20th Century.
69. Sharpe, S. A. (1990). Asymmetric Information, Bank Lending and Implicit Contracts: A Stylized Model of Customer Relationships. *The Journal of Finance*, 45(4), pp. 1069–1087. Retrieved from <https://doi.org/10.2307/2328715>
70. Skiba, P., & Tobacman, J. (2019). Do payday loans cause bankruptcy. *Journal of Law & Economics*, 62(3), pp. 485-520
71. Stulz, R.M. (2019). FinTech, BigTech, and the Future of Banks. *NBER Working Papers*
72. Sõrg, M. (2003). Reformation of the Estonian banking system
73. Zirnask, V. (2019). Eesti Panga Lugu, pp. 353-357.
74. Tornjanski, V. et al. (2015). The prioritization of open innovation determinants in banking. *Industrija* 43(3), pp. 81–105.
75. Yee-Loong Chong, A., Ooi, K., Lin, B. & Tan, B. (2010) Online banking adoption: an empirical analysis, *International Journal of Bank Marketing*, 28(4), pp. 267-287. Retrieved from <https://doi.org/10.1108/02652321011054963>
76. Young, J. (2011). Margin Pressure. Retrieved from: <https://www.investopedia.com/terms/m/marginpressure.asp>

Appendix

Questionnaire on the long-term prospects of Estonian commercial banking

Job title / Ametinimi

.....

How long have you been working in the banking field? / Kaua Te olete töötanud panganduse valdkonnas?

- 0-3 years
- 4-6 years
- 7-10 years
- 10+ years

What do you feel are the most important skills for a banking professional? / Mis on Teie arvates kõige olulisemad oskused, mida panganduses töötav inimene peaks omama? (Choose the most important ones)

- Analytical skills / analüütilised oskused
- Commercial awareness / kaubanduslik teadlikkus
- Attention to details/ tähelepanu detailidele
- Confidence/ enesekindlus
- Technical skills / tehnilised oskused
- Stress management/ pingetaluvus
- Muu:

What are the biggest challenges facing banks in Estonia? / Millised on Eesti panganduse suurimad väljakutsed? (Choose the most important ones, if "other" then please specify)

- Increasing Competition /Konkurentide arvu kasv
- Regulatory Compliance / Vastavus eeskirjadele
- Changing Business Models/ Ärimudelite muutumine
- Rising Expectations / Ootuste kasv
- Customer Retention/ Klientide hoidmine
- Security Breaches/ turvarikkumised
- AML (Anti money laundering)
- Cybersecurity
- Muu:

Can Central bank digital currencies be the future of money? / Kas keskpanga digiraha võib olla tuleviku raha? (Explanation: A central bank digital currency (CBDC) is a digital version of government-backed, fiat money)

- Yes
- No

Why do you think so (explanation to previous question) / Miks Te nii arvate (seletus eelnevale küsimusele)

.....

What are the recent most important innovations done by the banks? / Mis on viimase aja kõige olulisemad innovatsioonilised muutused panganduses? *

- Expanding internet banking services/ Internetipanga teenuste suurendamine
- Instant payment/ välkmakse
- Offering stocks/cryptocurrencies services / Krüptovarade ja investeringute teenuste pakkumine
- Cardless ATM service / Kaardita pangaautomaadi teenus
- paying with phone/ makse tehtud mobiiliga
- Muu:

Why do you think so (explanation to previous question) / Miks Te nii arvate (seletus eelnevale küsimusele)

.....

What technology will have the biggest impact on the banking future? / Millisel tehnoloogial on kõige suurem mõjuvõim panganduse tuleviku üle?

- AI (Artificial intelligence)
- ML (Machine learning)
- IoT (Internet of Things)
- blockchain- system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system.
- API (application programming interface)
- Muu:

Can Fin-techs replace banks in the next decade? / Kas Fin-techid saavad järgmise kümnendi jooksul pangad väljavahetada?

- Yes
- No

Why do you think so (explanation to previous question) / Miks Te nii arvate (seletus eelnevale küsimusele)

.....

Which of these describes your company's attitude towards the emerging fintech scene that offer new technology to financial institutions? / Milline neist kirjeldab teie ettevõtte suhtumist tärkavasse fintech-stseeni, mis pakub finantsasutustele uut tehnoloogiat?(Pick any that apply, if "other" then please specify

- Not interested/ ei ole huvitatud
- Monitoring
- Have created liaison positions
- Expect to buy technology in next 12 months
- Have already bought technology
- Looking to invest in fintech companies
- Have invested in fintech companies

What are the threats related to the rise of Fintech within your industry? / Millised ohud on seotud Fintechi tõusuga teie tööstuses?(Choose all applicable, if "other" please specify)

- Loss of market share
- pressure on margins
- privacy threat
- increase of customer churn

Should banks offer cryptocurrency trading? / Kas pangad peaks pakkuma krüptovaluutaga kauplemist?

- Yes
- No
- Maybe

Why do you think so (explanation to previous question) / Miks Te nii arvate (seletus eelnevale küsimusele)

.....

If you want later to read this thesis then please provide email down below

.....

Name and/or working place/ Nimi ja/või firma

.....

Source: compiled by the author

Resümees

Eesti kommerts panganduse pikaajalised väljavaated

Inessa Victoria Müls

Majanduse kasvamiseks peab pangandussüsteem korralikult toimima. Hetkel püüavad finantssektorid olla tehnoloogiliselt arenenumad. Seda kõike on ka näha Eesti finantssektoris. Üha rohkem on konkurente, kes pakuvad uusi ja innovaatilisi lahendusi panganduse lihtsamaks ja laiemalt kättesaadavaks muutmiseks.

Käesoleva bakalaureusetöö eesmärk on selgitada Eesti kommerts panganduse pikaajalisi väljavaateid, keskendudes innovatsioonile, konkurentsile ja väljakutsetele. Selleks, et eesmärk saavutada püstitas autor 7 uurimisküsimust.

Järgmise paari aastakümne jooksul, peab Eesti kommerts pangandus konkurentsile püsima, läbima kiireid uuenduslike muudatusi. Käesoleva uuringu eesmärgiks on välja selgitada ja selgust saada Eesti kommerts panganduse pikaajalisest väljavaadetest.

Pärast teoreetilise ülevaate valmimist avastas käesoleva bakalaureusetöö autor palju asju. Esiteks pakkus kirjandus välja kommerts panganduse erinevaid funktsioone ja kontseptsioone. Selgitati erinevaid pankade liike ning pankade tähtsust ja väljakutseid. Lisaks määratleti ja liigitati kõik praegused tegevused esmaseks ja teisejärguliseks ning pakuti näiteid, kuidas pangad võivad olla uuenduslikumad, jätkusuutlikumad ja vastata tarbijate ootustele.

Lisaks hakkas teine peatükk alternatiivsete pankade lühikese ajaloo, seejärel järgnes loetelu alternatiivsete pankade selgitustega, mis konkureerivad traditsioonilise kommerts pangasüsteemiga. Toodi välja peamised erinevused, plussid ja miinused, võrreldi turvalisust ja riske nii kommerts pankades kui ka alternatiiv pankades ning selgitati alternatiivsete pankade olulisust ja nendega kaasnevat väljakutseid.

Teoreetiline osa lõppes varasemate uuringute analüüsimise ja kokkuvõtete tegemisega. Varasemad uuringud näitasid, et kommerts pangad peavad endiselt keskenduma innovatsioonile, rakendama kõrgemat turvalisust

Käesolevas uuringus viis autor läbi küsimustiku oluliste finantstöötajatega, et välja selgitada, millised võivad olla muutused ja milline on hetkeseis Eesti kommerts panganduses. Vaatama sellele, et pangad on Eesti finants süsteemis kõige suurem sektor, ei ole selle lähi aastakümnete väljavaateid selgitavaid uuringuid läbi viidud.

Empiiriline osa algab lühiülevaatega Eesti pangandusvaldkonnast, Eesti pangandussüsteemi ajaloost, siin tegutsevate pankade ja finantseerimisasutuste loetelu ning mõned näited Eesti äritegevuse hetkeolukorrast (turuosast), uuendustest ja puudujääkidest.

Näiteks mõned pangad on juba juurutanud krüptoraha ja börsi, mõnel pangal pole enam filiaale. Järgmine osa käsitleb uuringu läbiviimise meetodit. Võeti kasutusele kvalitatiivse ja kvantitatiivse lähenemisviisi kombinatsioon, eriti küsimustik väiksema valimi jaoks.

Läbiviidud küsimustiku põhjal avastas autor, et Eesti kommertsbankid ei täida oma potentsiaali praegusel ajal. See võib mõjutada pikaajalisi väljavaateid, kuna nad on juba mahajäänud nendest. Eesti kommertsbankid peavad juurutama uusi innovatiivseid teenuseid ja tooteid, mis tõmbaks kliente nende poole, kasutama tehnoloogiaid, mis muudaksid nende kasutamise ohutumaks ning lihtsamaks, võitlema küberriskidega, keskenduma praegusest rohelisemaks ja jätkusuutlikumaks muutumisele. Lisaks võib kasuks tulla koostöö Fintechiga või lihtsalt nende jälgimine, nii Fintechil pole võimalik kommertsbanku asendada. Lisaks, kuna krüptovaluuta on muutumas üha populaarsemaks, võiksid kommertsbankid seda valdkonda uurida ja vaadata, mida nad saaksid oma klientidele pakkuda.

Kui rääkida Eesti kommertsbankidest, siis võimalused areneda ja omavahel konkureerida on suured, kuna kõik on üsna sarnased ja pakuvad peaaegu samu teenuseid. Isegi rakendused ei erine oluliselt, praktiliselt näevad välja sarnased ja pakuvad samu teenuseid. Seega on võimalus Eesti pangandusväljal domineerida, kui keegi neist teeb või pakub midagi natukene teistsugust. Näiteks: parandada oma rohelist kuvandit, pakkuda mobiilirakenduses krüptovaluutat ja börsi, rakendada uut kontrollimeetodit, mis oleks kiirem ja lihtsam kui praegune.

Soovitused tulevikuks selle teema edasiseks uurimiseks oleks võrrelda teiste piirkondade kommertsbankidega, teha laiem uuring või sukelduda mõnda konkreetsesse aspekti. Näiteks innovatsiooni juurutamine, tehnoloogia kasutamine (netipangandus, turvalisus, tarkvarad), klientide ootused, jätkusuutlikuse kasv jne. Selle uuringu eesmärk oli välja selgitada Eesti kommertsbankanduse pikaajalised väljavaated, kuid huvitav oleks edasine uurimine, kui see puudutaks kommertsbankanduse globaalset või konkreetsete piirkondade tulevikku. Hea näide on Eesti, Läti ja Leedu tulevikuerinevused kommertsbankanduse sektoris. Teise näitena vaadeldes riigi pangandussüsteemi stabiilsust teiste sama piirkonna riikide suhtes või seda, kuidas nende pangandussüsteem suudab toime tulla ootamatult juhtuvate kriiside/olukordadega maailmas (COVID-19, Venemaa agressioon Ukraina vastu).t

Non-exclusive licence to reproduce thesis and make thesis public

I, Inessa Victoria Mültš

1. herewith grant the University of Tartu a free permit (non-exclusive licence) to reproduce, for the purpose of preservation, including for adding to the DSpace digital archives until the expiry of the term of copyright

LONG-TERM PROSPECTS OF ESTONIAN COMMERCIAL BANKING SECTOR

supervised by Mark Kantšukov.

2. I grant the University of Tartu a permit to make the work specified in p. 1 available to the public via the web environment of the University of Tartu, including via the DSpace digital archives, under the Creative Commons licence CC BY NC ND 3.0, which allows, by giving appropriate credit to the author, to reproduce, distribute the work and communicate it to the public, and prohibits the creation of derivative works and any commercial use of the work until the expiry of the term of copyright.

3. I am aware of the fact that the author retains the rights specified in p. 1 and 2.

4. I certify that granting the non-exclusive licence does not infringe other persons' intellectual property rights or rights arising from the personal data protection legislation.

Inessa Victoria Mültš

12d/05/2022