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LIST OF ABBREVIATIONS

AI	Artificial intelligence
API	Application programming interface
B2B	Business-to-business
B2C	Business-to-consumer
BaFin	Federal Financial Supervisory Authority
BBVA	Banco Bilbao Vizcaya Argentaria
BCBS	Basel Committee in Banking Supervision
CX	Customer experience
E-banking	Electronic banking
EC	European Commission
E-finance	Electronic finance
FI	Financial intermediary
FMA	Financial Market Authority
FS	Financial services
FX	Foreign exchange

GDPR	General Data Protection Regulation
HR	Human Resources
InsurTech	Insurance technology
IoT	Internet of things
IT	Information technology
KYC	Know Your Customer
MiFID2	Market in Financial Instruments Directive 2
MVP	Minimum viable product
P2P	Peer-to-peer
PFM	Personal financial management
POC	Proof of concept
PSD1	Payment Services Directive 1
PSD2	Payment Services Directive 2
RegTech	Regulatory technology
SCA	Strong customer authentication
SME	Small and medium-sized enterprise
SupTech	Supervisory technology
UX	User experience

1 INTRODUCTION

1.1 Overview

Banks play an essential role in the economic value creation and have performed crucial functions of the financial system for centuries. These banking functions include granting loans and accepting deposits, providing liquidity, transforming assets, managing risks, monitoring borrowers, and decreasing information asymmetries between investors and borrowers (Freixas & Rochet, 2008, p. 2). However, the advancement of information technology (IT) in this sector has brought about considerable change in the form of digitalization of banking functions. Since automated solutions like electronic banking (e-banking) replace human-based customer service, which offers substantial cost savings, the customer interface reflects most innovation.

The recent developments in IT create new business opportunities for FinTech companies in areas such as automated data analysis for loan risk assessment or web-based services tailored to specific customer segments. In particular, the division of payment services, but also the lending segment is targeted by FinTechs that have introduced peer-to-peer (P2P) lending and marketplace lending models to reduce intermediation costs. Furthermore, FinTechs have emerged in the area of information processing, using Big Data and machine learning, which allows them to provide credit information faster and at lower costs than incumbents. As can be seen from the examples above, FinTechs have emerged in many segments that are vital in retail banking, and their standardized products with low risk and fewer regulatory requirements disintermediate some of the traditional banking functions (Molnár, 2018, pp. 39-43). Consequently, better solutions for generating a superior customer experience have evolved (Alt & Puschmann, 2016, p. V).

In recent years, FinTech initiatives have gained international exposure, especially in the banking and financial sector. The growth of FinTech related activity in Europe, such as Germany, Ireland, France, Spain, and the Nordics, depicts the interest in FinTech. Still, the evolvement of FinTech varies in every country, as its development is affected by local protectionism, banking structures, regulations, customer preferences, and cultural traditions (Hill, 2018, p. 269). More precisely, in 2019, there were around 1100 FinTechs in Central and Eastern Europe, and the tendency is growing. According to a press release by RBI, the largest FinTech hubs of the CEE region are Russia, the Czech Republic, and Poland (RBI, 2019).

FinTech is one of the most critical innovations in the financial services industry and is currently evolving at a fast pace. The advantages of financial technology are manifold, ranging from reduced costs and improved quality to the development of a more diverse and secure economic landscape (Lee & Shin, 2018, p. 35). Innovative start-ups and other tech companies push the growth of FinTech, and banks need to keep up with the emerging trends and leverage the potential of financial technology. Indeed, banks and FinTech companies need to collaborate to reap the benefits of innovation and increase the efficiency of financial services (Bedford, Bellens, Meekings, Schlich, 2018, p. 32). Nevertheless, some traditional retail banks consider FinTech firms, such as challenger banks, a threat (Lee & Shin, 2018, p. 36). Challenger banks have lower operating costs, since they rely on the internet and often do not have a branch, which enables them to offer their services at lower prices. Nevertheless, the volume and market share of challenger banks is smaller than the ones of traditional banks, given that they only offer essential services (Molnár, 2018, pp. 43-44). For this reason, many financial institutions have started to develop strategies to compete, coexist, or collaborate with FinTech firms (Lee & Shin, 2018, p. 36).

1.2 Objective

The objective of this Master thesis is to gain a better understanding of the FinTech industry by analyzing different FinTech segments and business models with a focus on two types of FinTech firms: the challenger bank as a direct competitor and the collaboration partner. This thesis aims to gain insights into the digitalization of financial services by reviewing the impact that it has on traditional retail banks in Central and Eastern Europe. The focus lies on the collaboration between FinTech companies and traditional retail banks and the factors that enable such a partnership.

The research questions are:

- *Cooperation vs Competition: what is more beneficial to FinTech companies regarding different types of FinTech companies?*
- *What are the factors that lead traditional banks to cooperate with FinTech companies?*
- *What are the implications of collaboration between FinTech companies and traditional retail banks?*
- *Which factors lead to successful cooperation between FinTech companies and traditional retail banks?*

The outbreak of the Coronavirus has significantly impacted the global economy. Consequently, this thesis also addresses the effects the pandemic has on the FinTech industry by answering the following question:

- *What impact does the Corona crisis have on the financial services industry?*

A qualitative research method enables to analyze the underlying subject. The chapter dedicated to the methodology discusses the choice and specification of the research design in more detail.

1.3 Structure

The research methods applied include a literature review and the collection of primary data through expert interviews. The first section of chapter two is the literature review and provides an overview of the banking sector, including the definition of banks and their functions. Second, the theory of financial intermediation explains the importance of banks by transaction costs and informational asymmetries. The next section includes an overview of FinTech, which will then be succeeded by the definitions of FinTech and challenger banks, the development of the FinTech industry, and the different FinTech segments and business models. Subsequently, the changes in the financial services industry follow, including the financial crisis, regulations, innovation, and the customer shift that comes along with it. The third chapter describes the methodology, using the qualitative content analysis by Mayring (2014). This section also includes the research design, the process of data collection, and the evaluation. Chapter four depicts the findings of the study and summarizes the main categories derived from the analysis of the expert interviews. The subsequent discussion of the results links the findings of the expert interviews to the existing literature on the theory of financial intermediation. Moreover, this section investigates the implications of FinTech and bank collaboration, the strategy for a successful partnership, and the effects of the Corona crisis. Finally, the conclusion sums up the most important outcomes of this study, including the limitations and further research.

2 LITERATURE REVIEW

This section presents an overview and definition of banks, FinTech, and challenger banks. The theory of financial intermediation outlines the importance of banks and suggests approaches for the investigation of the research questions. Finally, to gain a better understanding of the developments in the financial services industry, the financial crisis of 2008, regulations, innovation, and changes in customer demand are discussed.

2.1 Overview of Banking

Banks play a crucial role in the financial system, mainly because of their deposit-taking function (Stulz, 2019, p. 87). They are financial institutions that receive capital from investors and pass it on to borrowers. Banks create a place where supply and demand can meet and act as market participants themselves. Therefore, they are also called financial intermediaries (Hartmann-Wendels, Pfingsten, Weber, & Weber, 2019, pp. 2-3). This thesis focuses on traditional retail banks in Central and Eastern Europe, whereby five representatives of banks are interviewed and discussed in chapter five to comprehend their perspective on the current developments in the financial services sector.

2.1.1 Definition of Banks

Banks play a crucial role in the allocation of capital in the economy and offer services such as liquidity and means of payment to their customers. The ongoing operations of a bank encompass granting loans and receiving deposits from the general public, which is typical for commercial banks. Since banks generate a fraction of their funds with deposits from lenders, the banking sector is relatively fragile and therefore needs to be regulated (Freixas & Rochet, 2008, pp. 1-2).

2.1.2 Banking Functions

Typical banking functions are divided into four areas by the contemporary banking theory. These categories are offering liquidity and payment services, transforming assets, managing risks, processing information, and monitoring borrowers. However, only universal banks perform all these tasks (Freixas & Rochet, 2008, p. 2).

The change of money was the first banking activity and played a vital role in the development of trade in Europe during the late Middle Ages, as illustrated by the Greek word “trapeza” for the bank. It stands for the balance used to weigh coins so that the quantity of metal the coins contained could be measured precisely. The Italian word “banco” refers to the bench on which money changers placed their coins. The management of deposits followed the money-changing activity, whereby, initially, bank deposits were supposed to be kept safe from loss or robbery and without lending them. Since the quality of coins differed according to the composition of the metal, the government required banks to make coins of comparable quality, which in turn implied a decrease in transaction costs. At the end of the nineteenth century, clearing activities gained importance in the United States and Europe, leading to the creation of modern payment systems to ease the transfer of funds between economic agents (Freixas & Rochet, 2008, pp. 3-4).

There are three types of asset transformation: the convenience of denomination, quality transformation, and maturity transformation. The convenience of denomination implies that the bank chooses the unit size, called the “denomination” of deposits and loans, in favour of its clients. Quality transformation happens when bank deposits offer a better risk-return than direct investments, which can occur when banks have an information advantage, also known as asymmetric information. Maturity transformation allows banks to transform securities with short maturities offered to depositors into securities with long maturities, desired by borrowers. This function implies risks, which can be hedged by interbank lending and derivative financial instruments, which come at a high cost (Freixas & Rochet, 2008, p. 4).

In general, the primary sources of risks that affect banks are credit risk, interest rate risk, liquidity risk, and off-balance sheet operation risk. Initially, banks kept credit risk low by arranging fully collateralized loans. However, with the beginning of investment banking, the riskiness of bank loans increased significantly. Transforming banking assets implies increased risks, since the cost of funds may rise above the interest income. Besides, a bank may face unexpected withdrawals if no interest is paid on deposits, forcing it to look for more expensive funds. As a result, the bank will have to deal with interest rate risk deriving from the difference in maturity and liquidity risk from the difference between the claims issued and the ones held (Freixas & Rochet, 2008, pp. 5-6).

In the 1980s, the competition from financial markets incentivized banks to develop products customized to their clients’ needs. For example, contracts such as loan commitments, credit lines, guarantees, swaps, hedging contracts, and securities underwriting. These operations are a conditional commitment to specific activities of a bank and therefore monitored by banking regulators. To resolve the problems stemming from imperfect information on borrowers, banks invest in technologies, which allow them to screen loan applicants and monitor projects more efficiently and reduce the effects of moral hazard. This type of information asymmetry derives from the willingness of borrowers to take on riskier projects after they receive funds from a bank (Freixas & Rochet, 2008, p. 6).

2.2 Theory of Financial Intermediation

Financial intermediaries (FIs) are economic agents that buy and sell commercial claims simultaneously. The theory of industrial organization justifies the need for intermediaries given the presence of frictions in transaction technologies. According to a study of banking in Bruges by McAndrews and Roberds (1995), the initial main task of banks was to facilitate payments, which later developed into their role as financial intermediaries (McAndrews & Roberds, 1995, pp. 305-307). Banks grant loans by buying securities issued by borrowers and collect deposits by selling them to lenders. Therefore, they act as intermediaries of financial assets. However, banks usually deal with loans and deposits that are difficult to resell, so they have to hold it in their balance sheet until the contracts expire. Besides, banking institutions take care of the transformation of financial contracts and securities to adapt them to the investors' or depositors' desires (Freixas & Rochet, 2008, p. 15).

2.2.1 Transaction Costs

Transaction costs and informational asymmetries explain the need for financial intermediaries. Information asymmetries occur in the form of adverse selection, which describes the ex-ante process of choosing companies for providing funding as a bank, moral hazards, or costly state verification. Information asymmetries lead to market imperfections, which are a form of transaction costs. Another example of transaction costs is the transformation of deposits of convenient maturity with low risk into loans with long maturity and credit risk. Since the transaction costs would be too high for depositors or borrowers, the bank conducts the transformation. Economies of scale and economies of scope make it beneficial for banks to transform financial assets. Economies of scale and scope usually derive from transaction costs that include search costs, monitoring costs, and auditing costs (Freixas & Rochet, 2008, pp. 16-18).

Since customers are more likely to stay with banks that can fulfil most of their needs, banks try to extend their range of services. The increasing amount of products and services offered by a bank results in economies of scale, since many banking activities have low marginal and high fixed costs. Besides, economies of scope arise when a bank implements various activities together rather than individually, which can lead to synergies across product lines. However, many banks still cannot take advantage of these synergies because they are often not organized in an efficient manner (Stulz, 2019, p. 88).

2.2.2 Economies of Scope

The central place theory is an example of economies of scope between deposit and credit activities. It describes the efficiency of offering deposit and credit services in one single location for a firm or branch to reduce transportation costs. The portfolio theory gives a better explanation of economies of scope. It suggests that less risk-averse investors short-sell their riskless assets in equilibrium to invest more in the risky market portfolio (Freixas & Rochet, 2008, pp. 18-19). Kashyap, Rajan, and Stein (1999) found another source of economies of scope, which states that banks have expertise in managing liquidity risk, which in turn allows them to offer deposit services and credit lines (Kashyap, Rajan, and Stein, 1999, pp. 2-4).

As explained in the previous paragraphs, effective risk management is critical for the success of banks. Banks must invest in a diversified portfolio to manage risk, and earn enough on the funds they raise, to generate profits (Stulz, 2019, p. 88). Pyle (1971) defines diversification as a process of allocating capital efficiently to reduce risks, whereby banks play the role of investors that hold a long position in securities with a positive expected excess return and sell short financial assets with a negative expected return, which is positively correlated (Pyle, 1971, pp. 737-742). Taking into account information asymmetries in the explanation, lenders trust borrowers more if they gain more information on them. Consequently, depositors are more likely to agree on participating in financing risky projects if they know that their banker has a personal stake in them (Freixas & Rochet, 2008, p. 19). Furthermore, banks have an information advantage derived from their clients' accounts compared to other financial institutions. However, with the emergence of digitalization, better techniques for analyzing data were introduced by other institutions, making unique information available to banks less valuable (Stulz, 2019, p. 88).

2.2.3 Economies of Scale

Fixed transaction costs or increasing returns in transaction technology provide a proper justification for financial intermediaries. For example, fixed fees associated with financial transactions can be shared between investors when they form a coalition, in case the transaction costs are not proportional. More precisely, the cost of capital per firm is a decreasing function of the number of firms that form a coalition, leading to economies of scale. Furthermore, a coalition of investors can hold a more diversified portfolio than one individual investor could, due to indivisibilities. Given the law of large numbers, a coalition of investors can invest in illiquid but more profitable securities and still satisfy the needs of individual investors simultaneously (Freixas & Rochet, 2008, pp. 16-20).

2.2.4 Liquidity Insurance

The basic idea of models by Bryant (1980), Diamond and Dybvig (1983) is that depository institutions are considered pools of liquidity, which protect households against idiosyncratic shocks affecting their consumptions need. The total cash reserve required by a coalition of depositors increases less than proportionally with the size of the alliance, as long as the shocks are not perfectly correlated. On the one hand, this provides the basis for the fractional reserve system that uses a part of the deposits to finance illiquid investments. On the other hand, this is also a source of risk for banks, in case a large number of depositors decide to withdraw their funds at the same time (Bryant, 1980, pp. 339-342; Diamond & Dybvig, 1983, pp. 401-404).

2.3 Overview of FinTech

FinTech companies are currently stirring up traditional financial service providers. While conventional banks are struggling with handling digital technologies, combining agility and stability, FinTech firms are up to date with the latest developments and innovate the value chain at incredible speed. FinTechs use technological developments to offer data-based services via digital channels. Retail banks are becoming more technology-oriented, since they feel the pressure from shifting customer demand and the rising number of technology companies, start-ups, and other competitors (Gimpel, Rau, & Röglinger, 2016, p. 38).

2.3.1 Definition of FinTech

The term “FinTech” is a fusion of the word “financial technology” and describes a cross-disciplinary subject that connects finance, technology, and innovation management. The idea is to improve financial services by proposing technology solutions according to different business situations. FinTech helps companies reinvent their business models or even suggest new businesses. It is currently disrupting the business world and is vital for the development and growth of the banking industry (Leong & Sung, 2018, p. 4).

FinTech is often associated with start-ups, since the use of advanced digital solutions is a rather modern trend. However, mature companies are transforming their businesses and making use of financial technology as well. FinTech organizations are threatening traditional service providers, since they offer customer-centric products and services in a faster and more efficient way (Nicoletti, 2017, p. 13). While traditional financial institutions are stuck in rigid, old business models with an internal resistance to change, new market entrants are ready to fill the growing gap (Nicoletti, 2017, p. 33). For example, FinTech firms acquire and retain customers by making customer experience a key point of differentiation. Other contributions of FinTechs include their innovative solutions deriving from advanced technologies and lean processes (Nicoletti, 2017, p. 27). Many FinTech companies make use of data analytics to unbundle financial services into more agile business propositions with a high level of specialization (Sironi, 2016, pp. 5-6).

2.3.2 Definition of Challenger Banks

Challenger banks or neo-banks offer fully digital and mobile banking services, which reduce their operating costs. Usually, they work on an open platform in multiple countries and have a banking license. Many challenger banks started with a single service, such as payments, and then added other financial services (FS) offerings such as lending, savings, and wealth management. Challenger banks have an agile, customer-centric approach that brings business and technology together in a fast and efficient way. Artificial intelligence (AI) enables data insights for personalized solutions while ensuring data protection (Capgemini, 2020, pp. 6-7). Even though challenger banks are neither FinTechs nor traditional banks, they are placed into the category of FinTechs, since they have more features in common than with incumbents.

2.3.3 Brief History of FinTech Development

The concept of FinTech arose in July 1866, when the first communication through the Trans-Atlantic transmission cable reduced the communication time between North America and Europe from ten days to 17 hours. Besides the Trans-Atlantic transmission cable, mainframe computers were the critical enabling technologies. The period from around 1866 to 1967 facilitated the expansion of global telex and enhanced related financial services (Leong & Sung, 2018, pp. 74-75).

The introduction of the ATM in 1967 is probably one of the most significant innovations in the financial services industry of the latest century. It is one of the initial applications of technology that led to economic savings by replacing the workforce through automation (Nicoletti, 2017, pp. 14-15). The emergence of the internet followed in the early 1990s and had a profound effect on the financial markets worldwide. For example, the advances in technology led to lower costs for financial transactions and the development of electronic finance (e-finance). E-finance includes different forms of financial services such as banking, insurance, and stock trading. Therefore, it helps individuals or companies perform business transactions and obtain information about various products and services of financial institutions without having physical contact with them. The impact of the internet strongly affected the banking industry. For instance, the introduction of e-commerce led to the cut of physical locations for banks. The internet allows profiting from lower operational costs, real-time information, and smoother communication within an institution. Other advantages include the more convenient interaction with clients or the provision of value-adding services such as the expertise in financial management. Moreover, the introduction of the mobile phone has allowed people to make use of mobile payment and mobile banking (Lee & Shin, 2018, p. 36).

Starting in 2008, start-ups and established technology companies started delivering financial services directly to consumers. Furthermore, in 2009 a digital currency called Bitcoin was invented by Satoshi Nakamoto. Bitcoin allows performing transactions without the involvement of central banks or other intermediaries. Over time, financial services have become increasingly globalized and digitized, which has also encouraged new market players to enter the financial services sector (Nicoletti, 2017, pp. 16-17).

2.3.4 FinTech Segments

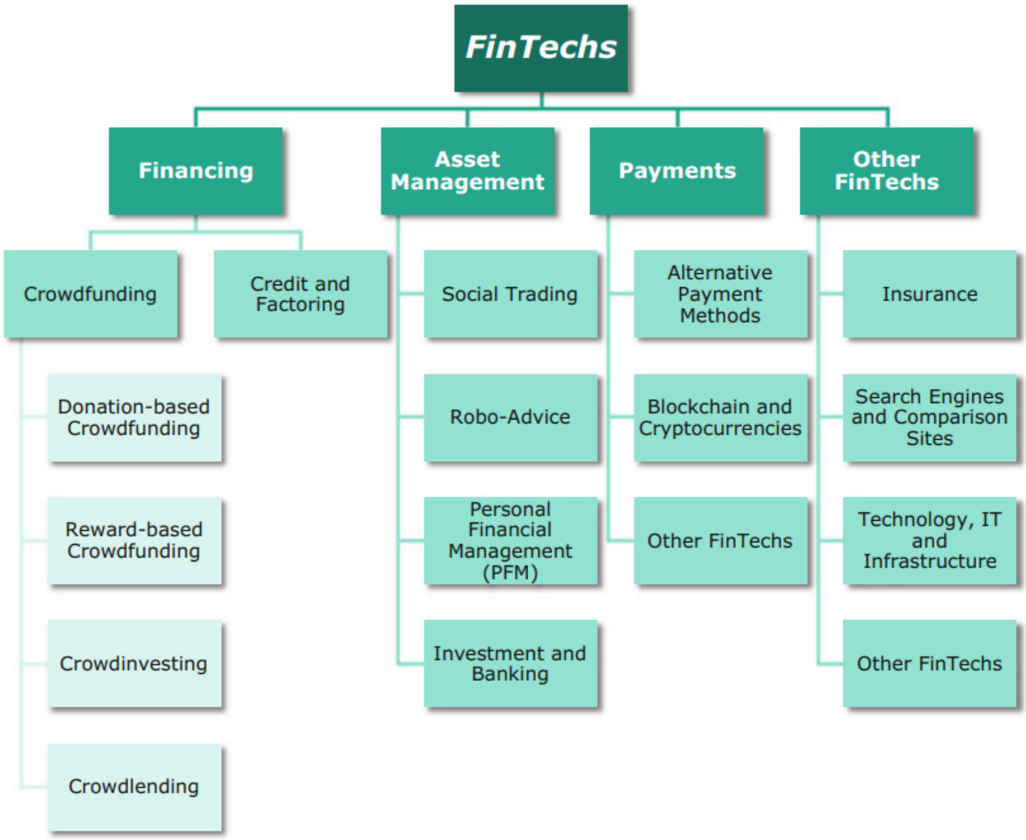

Figure 1: FinTech Segments

(Source: Dorfleitner, Hornuf, Schmitt & Weber, 2017, p. 7)

As illustrated in Figure 1, four operational business processes that are analogue to the traditional value-adding areas of a universal bank, being financing, asset management, payments, and other FinTechs, divide FinTech companies into different segments (Dorfleitner et al., 2017, p. 6). FinTech on financing refers to acquiring funds for business activities from various sources of finance such as bank borrowing, venture capital, franchising, government funds, stock market, debenture, and bonds. Furthermore, the financing aspect includes AI, machine learning, Big Data, advanced algorithms, and automation. Overall, this trend leads to a more efficient information sharing process, lower transaction costs, the emergence of new financing alternatives, and the support of better decision-making (Leong & Sung, 2018, pp. 76-77).

The financing sector is available for private individuals and businesses. It comprises crowdfunding as one subsegment and credit and factoring as another. A crowdfunding platform takes on the role of an intermediary instead of a traditional bank, whereby contributors provide financial resources to reach a shared objective. Crowdfunding can be further subdivided based on the consideration given to investors into donation-based and reward-based crowdfunding, crowdinvesting, and crowdlending (Dorfleitner et al., 2017, pp. 6-8). Furthermore, crowdfunding allows companies to obtain funds at a lower cost and is an efficient tool for entrepreneurs to bridge the funding gap between the early stages of a start-up and the later growth of capital (Leong & Sung, 2018, p. 76). FinTechs in the credit and factoring subsegment usually cooperate with one or more partner banks. They enable cost-effective, fast, and efficient services such as granting loans or offering factoring solutions, for example, without a minimum requirement and selling claims online (Dorfleitner et al., 2017, p. 8).

The asset management segment consists of the subsegments of social trading, Robo-Advice, personal financial management (PFM), and investment and banking. This sector includes advisory services and the disposal and management of assets and personal wealth. Social trading usually takes place on a platform where investors can exchange their investment strategies or portfolios with members of a social media network (Dorfleitner et al., 2017, pp. 7-8).

Recent developments of the Internet of Things (IoT), wearable computers, advanced sensors, AI, machine learning, Big Data, advanced algorithms, and automation have helped ameliorate business processes in terms of personalization, cost reduction, flexibility, users' experience enhancement, and financial decision-making (Leong & Sung, 2018, p. 76). In the area of sales and advisory services, the focus lies on electronic self-advice, digital advisory assistants such as Robo-Advice, the use of electronic channels for expert advice, and advice between customers via social networks (Alt & Puschmann, 2016, p. 95). Robo-advisors provide automated information on financial matters or investment management for clients, with the use of advanced technologies; for example, artificial intelligence, Big Data, and machine learning. One of the critical advantages of Robo-advisors is the provision of personalized suggestions for customers, updated according to real-time data. Furthermore, there are applications of insurance services that use wearable computers to send health data of clients to the insurance company and create personalized insurance packages for each customer (Leong & Sung, 2018, p. 76).

The subsegment of personal financial management includes private financial planning, more precisely, the administration and presentation of financial data with the use of software or app-based services. Finally, the investment and banking subsegment offers online-based asset management and deposit brokers, which arrange daily or fixed-term deposits, besides cost-efficient and user-friendly traditional banking products (Dorfleitner et al., 2017, p. 9).

The payment segment comprises FinTechs that enable national and international payment transactions. Blockchain and cryptocurrency are one subsegment of payments. Cryptocurrency, such as Bitcoin, is a practical alternative to typical fiat money, without the intermediation of banks. Bitcoin is one of the best-know virtual currencies, which is secured by blockchain technology that registers and stores all transactions on different servers. The alternative payment methods subsegment includes companies that offer mobile payment solutions and other innovative solutions for bank transfers or other payment methods (Dorfleitner et al., 2017, pp. 9-10). Mobile payment procedures and social networks provide a form of payment execution, which includes photographing payment slips with a smartphone and initiating payment transactions from social networks. In the area of investment, mobile brokerage enables the management and initiation of transfers on securities accounts via mobile app (Alt & Puschmann, 2016, p. 95). Starbucks is an example of the current trend of developing cashless payment solutions for clients. The coffeehouse company has developed a payment app to increase transactions in company-operated stores. Overall, these cutting-edge applications enhance business processes while also improving sales, automation efficiency, and customer retention (Leong & Sung, 2018, p. 75).

The other FinTech segment includes a subsegment of businesses that offer insurance, also called Insurance Technology (InsurTechs). Furthermore, there are subsegments such as search engines and comparison sites, and technology, IT, and infrastructure (Dorfleitner et al., 2017, p. 10). Compliance, which describes conformity to regulations, such as specifications, policy, standard, or law, also belongs to this segment. Even though compliance incentives can reduce risks, transaction costs, and increase trust, they do not directly add value to the business in question. Suggested emerging directions for the future of compliance are the use of robots, drones, mobile devices, AI, Big Data, and advanced algorithms. Technology to enhance regulatory processes is also called Regulatory Technology (RegTech) (Leong & Sung, 2018, p. 77). RegTech is a combination of the words “regulatory” and “technology” and involves the use of IT for regulation, monitoring, reporting, and compliance purposes. RegTech enables massive cost savings in meeting the compliance obligations of financial institutions. Moreover, the performance of functions can be improved (Arner, Zetzsche, Buckley, & Barberis, 2017, p. 8).

2.3.5 Business models

Generally, a distinction between Business-to-Business (B2B) and Business-to-Consumer (B2C) can be made (Dorfleitner & Hornuf, 2019, p. 115). Indeed, according to an analysis by Gimpel et al. (2016, p. 41), business models of FinTechs that deal directly with end customers, which can be either private individuals or business clients, operate along three non-functional dimensions being interaction, data, and monetization. The first dimension handles the interaction and the degree of personalization for the end customer. The communication can take place exclusively between the user and the FinTech firm, or the FinTech takes on the role of an intermediary. The FinTech can mediate either between several users or between users and other business partners. It is also possible that the FinTech is an intermediary in a marketplace, which gives users access to a wide range of offers from other users or business partners. Furthermore, the customer experience can be tailored to the individual end customer or designed uniformly for all clients (Gimpel et al., 2016, p. 41).

The second dimension describes the use of data, which is either retrieved from public sources or personal customer data. When adding a time horizon, statements about the extent to which historical data such as share price trends, current data such as location, and future data in the form of forecasts are used (Gimpel et al., 2016, p. 41).

The monetization dimension determines the revenue model and comprises three elements. Firstly, the currency of the end customer indicates how the client pays for a service. Furthermore, in case the FinTech cooperates with business partners for the delivery of its services, it also matters whether and how the business partner contributes to the value-added. Finally, the payment frequency indicates whether the FinTech is remunerated once at the first use of the service or on an ongoing basis in the form of a subscription (Gimpel et al., 2016, pp. 41-42).

By applying these dimensions to real FinTechs, Gimpel et al. (2016, p. 43) derive the following eight different FinTech business model types:

Business model type 1: Free service

This type of business model neither requires the end customer to pay money for the service nor any other business partner. Even though the service is free of charge, the customer pays with his data or attention. For example, the app “Kontoalarm” does not only offer a turnover overview of the linked current account but also informs the end customer about unusual account movements and recurring costs through subscriptions. With this type of service, not even the provider earns money, but throughout the app “Kontoalarm”, the provider has the option to refer new customers to other services with costs. Another service free of charge is called “tabbt”, which enables customers to easily track and settle group expenses among friends with a linked PayPal account. The reason for the free service can be an extension with paid elements or further development of the business model in the future (Gimpel et al., 2016, pp. 43-44).

Business model type 2: Usage-based service with fee

The usage-based chargeable service focuses on transaction-based payment by the end customer. For instance, the company “Schutzklick” offers product insurance policies for smartphones, bicycles, and other items. Another example is the FinTech “Vexcash”, which allows private individuals to obtain short-term credit within 30 minutes after online ordering, with a term of up to 30 days. After the due date, the client has to repay the credit amount at once, including the interest accrued (Gimpel et al., 2016, p. 44).

Business model type 3: Subscription-based service with fee

With a subscription-based paid service, the end customer pays for the service regularly. For example, the FinTech “TrueWealth” provides customers with individual investment advice based on preferences entered online. The FinTech start-up charges a percentage administration fee per year. Another example of a company using the subscription-based paid service is “wikifolio”, whereby customers pay a management and success fee at regular intervals. Besides, the service allows users to invest in sample portfolios of private and professional stock traders (Gimpel et al., 2016, p. 44).

Business model type 4: Bilateral analytical service

The focus of the bilateral analytical service lies in the evaluation of data within the direct relationship between the end customer and supplier. An example of this type of service is the mobile app “justSPENT”, which provides clients with an analytical evaluation of their spending and makes location-based spending forecasts. The FinTech “sharewise” includes a systematic component that consists of the aggregation of trade recommendations, fundamental analyses, analyst recommendations, and crowd sentiment for stocks. Consequently, this service offers a wide range of information on different assets in relationship with the end customer (Gimpel et al., 2016, p. 44).

Business model type 5: Bilateral personalized transactional service

Respective personalized transactional services contain an intense personalization of the interaction, which is directly between the provider and the end customer. For instance, the mobile app “Knip” supplies clients with a digital insurance manager that oversees optimizing rates and handles contract changes, including cancellations. Furthermore, there is another FinTech called “GetSafe” that offers customers a personalized overview of insurance policies by specifying relevant insurance companies and issuing a broker’s power of attorney directly via a mobile device. This service presents details of different insurance contracts while also offering support and professional advice (Gimpel et al., 2016, pp. 44-45).

Business model category 6: Marketplace paid by business partners

A marketplace is a platform on which potential clients can view the offers of different business partners and private individuals. In the case of the FinTech “Smava”, this includes credit offers of banks that customers can compare and apply directly via the app. “Smava” monetizes its service throughout intermediary premiums of credit institutions. A second example is “Seedmatch”, which offers private individuals an overview of various start-ups and enables clients to invest in them, handles investments, and receives remuneration from start-ups that have profited from crowdfunding (Gimpel et al., 2016, p. 45).

Business model type 7: Personalized intermediary paid by business partners

In this type of business model, the FinTech takes on an intermediary role between the end customer and the business partner. As a result, the business partner pays for the processing of the service, tailored to the client. For example, the FinTech “N26”, enables opening a free current account, including a credit card online. The mobile app offers various personalization functions such as changing the pin code, temporarily deactivating payment processes, or real-time transfers between “N26” accounts. Another payment service provider called “Kesh” enables mobile payment via the app and charges a transaction fee to the merchants involved in a transaction. For private clients, the service for mobile payment of bills is free of charge. Another advantage is that the proper storage of contacts allows smooth money transfers between friends (Gimpel et al., 2016, pp. 45-46).

Business model category 8: Non-personalized intermediary paid by business partners

Finally, there is also a business model type where the business partner pays for a non-personalized intermediary. An example of this category is the FinTech “payorshare”, which enables business partners to monetize their products, such as lifestyle guides, by offering two payment options. The end customer can either pay by cash or by sharing an advertising contribution for the product or company with the user account on social media. Another FinTech called “Barpay” offers a payment method for online purchases where clients can pay with cash by printing out a receipt and settling it together with other purchases at the retail outlet. The provider of “Barpay” receives a transaction fee from the business partner who offers cash payment as a payment method (Gimpel et al., 2016, p. 46).

2.4 The Changing Financial Services Industry

During the last years, the banking world has experienced substantial changes. The changing environment started with the financial and economic crisis in 2008, the increasing regulation of the financial services industry, and changes in customer demand (Nicoletti, 2017, p. 4). In the last decade, the interdependence between finance and technology has increased continuously. Therefore, banks spent vast amounts on IT to harness economies of scale and to stay competitive. The shift towards digitalization revealed that most banking systems are not capable of keeping up with the emerging FinTech companies that are disrupting the financial services industry (Sironi, 2016, p. 4).

2.4.1 Financial Crisis

The 2008 financial and economic crisis led to the realization that regulation is necessary to reduce the systemic risk generated by major financial institutions. Different measures were adopted to mitigate the systemic risk caused by the lack of regulatory incentives. For example, the Basel Committee in Banking Supervision (BCBS) increased the reserve requirement of banks, considering the individual contributions to global risk. Furthermore, regulators asked companies to verify their solvency, which in turn placed a burden on financial institutions, since it forced them to have more substantial reserves and scale back on their main activities. When the global economy finally recovered from the crisis, it left behind many customers that had lost faith in the traditional financial services. In the former clients’ eyes, financial institutions were the cause of the financial crisis, and therefore mistrust in the incumbents increased (Nicoletti, 2017, pp. 4-5).

2.4.2 Regulation

Stability is one of the essential factors for a functioning economy (Nicoletti et al., 2017, p. 7). However, banks are fragile, since they start to struggle when clients begin to withdraw their funds in times of crisis. This fragility can endanger the financial system, and due to the possible systemic risk, banks are heavily regulated (Stulz, 2019, p. 87). The global financial crisis has shown how a not functioning financial services sector can negatively affect the stability of the system. The financial services sector has accumulated significant losses during the last decades, whereby governments or central banks have covered many of these losses. Following the economic crisis, regulators have aimed for new standards in areas such as solvency, upgraded capital, and structural reforms in financial services. Furthermore, traditional market players have been taking drastic cost-cutting measures such as the reduction of headcount, the number of physical branches, administrative and operative expenses to fight the decrease in profitability caused by the financial crisis (Nicoletti et al., 2017, pp. 7-8).

2.4.2.1 Innovation

The global financial crisis of 2008 challenged the finance sector and triggered the shift from deregulatory approaches to financial regulatory reforms. The rapid evolution of FinTech in the last decade and rising policy incentives to resume economic growth and to foster financial inclusion have increased the pressure put on regulators to support innovation. Since innovation remains a crucial asset of financial technology, regulators need to encourage innovative disruption. For example, with the help of FinTech initiatives, companies can increase their market efficiency by reducing the costs of transactions and intermediation. Furthermore, financial technology can provide new solutions to long-standing problems, including the improvement of decision-making and the reduction of agency and compliance costs. Financial innovations such as derivates and securitization also played a crucial role in facilitating the financial crisis by helping to manage risk and allocate financial resources efficiently. The two vital regulatory topics during the crisis were consumer protection and financial market stability (Arner, Zetzsche, Buckley, & Barberis, 2017, p. 3).

Four approaches have emerged to support innovation. A first approach is a laissez-faire approach, which implies that regulators do not intervene and that there is no regulation for FinTech companies. This approach requires FinTech firms to comply with the general laws, which can, in turn, lead to restrictive results and brings along various risks. The second approach allows a certain amount of flexibility and takes measures on a case-by-case basis.

Many regulators prefer this approach over having no regulation and have granted restricted licenses and partial exemptions for companies to get access to data and experience with innovation. The third approach provides a structured context for experimentation with the introduction of a regulatory sandbox, which is an environment for businesses to their test products before launching them. These sandboxes bring along an essential dimension of transparency and are a means to enhance innovation in financial markets. Finally, a formal fourth approach reforms and develops appropriate regulations for specific areas such as crowdfunding, payments, or P2P lending. Since too many regulatory rules can weaken innovative incentives, regulators should apply approaches fitting for the particular company (Arner et al., 2017, pp. 4-7).

2.4.2.2 Payment Services Directive

In 2007, the European Union Payment Service Directive introduced lighter authorization and stability requirements for non-bank payment institutions, such as FinTechs operating in the area of payments (Nicoletti et al., 2017, p. 200). Consequently, the Payment Service Directive 1 (PSD1) was adopted, which constitutes the legal foundation for the EU single market for payments by making cross-border payments as secure as payments within a Member State. PDS1 brought about various benefits to the European Union, for instance, fewer market entry barriers for new payment institutions, generating more competition, and economies of scale. Besides, it led to more transparency and information for consumers (European Comission, 2018). Since the PSD1 does not fully cover the technologies used by new market entrants, the European Commission (EC) initiated a revision and implemented the Payment Services Directive 2 (PSD2) in 2018. The PSD2 allows FinTech companies to deliver innovative services based on financial data and forces banks to give access to their client’s bank accounts to third parties (Nicoletti et al., 2017, p. 200). According to the European Commission, the PSD2 extends the scope of PSD1 by covering new areas and market players, while extending the range of existing services. Its main objectives are contributing to a more integrated and effective payment system in the EU, improving the level playing field for payment service providers, making payments safer, and protecting consumers. It also includes so-called one-leg transactions, whereby only one of the payment service providers operates within the EU. Furthermore, it improves the cooperation and information exchange between authorities related to the supervision of payment institutions. Intending to make electronic payments safer, PSD2 imposes stricter security measures for payment service providers, implying the application of strong customer authentication (SCA) for electronic payment transactions (European Comission, 2018).

2.4.3 Customer Shift

Digitalization and technological innovations have a significant impact on customer demand and are changing consumers' behaviour and their understanding of the importance of financial services (Vasiljeva & Lukanova, 2016, p. 25). This trend triggers companies to keep up with the latest technologies and provide innovative services for their customers. Banks are investing large amounts of money in expanding their digital technologies (Gimpel et al., 2016, p. 2).

Interaction between banks and their clients is increasingly taking place via digital channels. Nowadays, there is a lively exchange of information among customers through social networks. This network effect also affects financial service providers, since this development offers an opportunity for a more targeted customer approach. However, transparency and constant availability of information can also pose challenges for financial services providers, since the interactions at the end customer interface result in vast amounts of data (Gimpel et al., 2016, pp. 39-40). With the help of analytical software, banks can build sophisticated models, analyze data faster and more efficiently, and gain deep insights into customer habits. Overall, banks are keen on investing in digitalization and innovative solutions such as the development of process automation and efficiency, while creating a secure communication network that is suitable for new market demands. Indeed, innovation labs can help generate ideas (Vasiljeva & Lukanova, 2016, p. 28).

Furthermore, the analysis of customer data improves the understanding of customer needs and behavioural patterns, driving operational effectiveness throughout the organization. On the one hand, banks have a strong market presence, and some clients still prefer banks over FinTech companies due to security and trust reasons. Consequently, FinTech companies need to focus on marketing their services to attract more clients and establish public trust (Vasiljeva & Lukanova, 2016, p. 28).

On the other hand, younger generations prefer having access to personalized solutions, which is contradicting to the mass marketing approach of traditional financial institutions. Nowadays, customers expect to receive products and services customized to their personal needs and adaptable to their investment objectives. However, matching products and services individually to clients is only possible with the aid of digitalized platforms. For this reason, many FinTech firms focus on Millennials, who are looking for digital, interactive, and customized products. This target group usually owns fewer assets than the rest of the population, so to be economically viable, FinTech firms aim to attract a large number of customers that have sufficient assets. Nevertheless, this is a challenging task, since FinTech initiatives struggle to reach a profit if the younger generation's wealth remains low. Furthermore, Robo-advisors are a solution for customers with limited assets that want to avoid high bank charges way (Nicoletti et al., 2017, pp. 5-6).

In contrast, traditional banks manage the assets of wealthier customers, which requires more expertise. Consequently, if customers acquire more assets and wealth over time, FinTech firms might struggle to make money when losing customers that reach higher income levels. Therefore, traditional institutions need to develop more innovative and interactive approaches for their clients to transform their customer relationships in the best possible way (Nicoletti et al., 2017, p. 6).

The literature review provides an overview of traditional banking, the theory of financial intermediation, and the FinTech industry, including the explanation of different FinTech segments and business models. The banking landscape is currently transforming, triggered by various events such as the financial crisis of 2008, new regulatory approaches such as PSD1 and PSD2 that are encouraging innovation, and thereby welcoming new market players such as FinTechs. Furthermore, digitalization has a significant impact on customer preferences, which are changing according to the latest technological developments.

3 METHODOLOGY

This chapter presents the process and method of research. The first part describes the research strategy and methodology. In the second part, the data collection, as well as the sample under investigation, are explained, to consider the procedure of data evaluation finally.

3.1 Research strategy and design

The research strategy of this thesis is inspired by the theory of financial intermediation, which explains the role of banks as liquidity providers and their ability to reduce market imperfections, such as transaction costs and asymmetric information (Freixas & Rochet, 2008, pp. 16-18). Furthermore, game theory plays an important part, since FinTech companies either collaborate or compete with banks. The research design provides the framework to answer the research questions. In general, there are five different research designs: explorative, descriptive, relational, causal, and mixed research (Mayring, 2014, p. 11). The explorative design investigates a rather new phenomenon by formulating new categories out of the material, and priorities for further analysis are set (Bortz & Döring, 2006, p. 50). The descriptive design works through texts by formulating categories deductively and taking into consideration their frequency. The relational model investigates the correlation between different variables and their influence on each other. The causal design studies the cause of a problem with a nominal or ordinal deductive category system within an experimental model. Finally, the mixed design describes different content-analytical methods such as typification or content structuring (Mayring, 2014, p. 12).

This thesis aims to examine the effect of FinTech and bank collaboration, the success factors, and obstacles that come along with it, as well as the general trends of FinTech development. The focus lies on the perspectives of the respondents from FinTechs, traditional banks, and consultants. The analysis of the different interview groups, as well as a general understanding of the subject, is required to identify possible correlations. Therefore, the perspectives of all three respondent groups and the theoretical background provide the base for the discussion in chapter five. The research uses the explorative design that enables to examine the research questions in depth. For the explorative design, the qualitative research method is the most appropriate methodology to generate understanding and new insights about the underlying topic (Bortz & Döring, 2006, p. 50).

3.2 Sample construction and data collection

The explanation of the research design builds the base for the procedure of expert selection and data collection. The most critical techniques of qualitative data collection are non-standardized or semi-standardized surveys, observations, and nonreactive research (Bortz & Döring, 2006, p. 308). For the explorative qualitative research, the author conducted interviews to obtain specific opinions and insights of experts in the field. Within the framework of this type of survey method, there are different variations, such as biographical, ethnographical, focused, expert, problem-centred, and discursive interviews (Bortz & Döring, 2006, p. 315). Given the scope of the thesis, the writer of the thesis omits the precise definition of the different interview types. The semi-structured expert interview used in this thesis provides a structure but still allows to tailor questions to each participant and to collect data following the exploratory design (Arsel, 2017, p. 943). Therefore, a semi-structured interview guide was generated, following the methodology of the interview, to address all topics that are vital to answer the research questions. The author adapted the interview guide to the groups under investigation, relying on existing literature and personal knowledge. At the beginning of each meeting, the author introduced the aim of the thesis and provided a general overview.

A total of 14 interviews with three expert groups was conducted in the course of this work to understand different perspectives and gain deeper insights. Three participants were from various consulting firms, and six within the group of FinTechs. More precisely, the interviewer held one of the interviews with a challenger bank and two with FinTech Accelerators. Finally, five experts who are working in incumbent banks provided insights. The table below illustrates the interview partners, whereby three participants requested anonymization for data protection reasons. The interviewees were acquired from the author's professional environment as well as through recommendations of participants and connections on LinkedIn. All the interviews were conducted either via Skype, Microsoft Teams, Zoom, or telephone, given the Corona outbreak during the time of data collection for this thesis. Then the interviews were recorded and transcribed. The declaration of consent signed by the participants before the meeting guarantees the approval of the interviewees. The author excludes pauses, vocalizations, and other non-verbal elements in the transcripts, since they do not influence the interpretation of the results (Kuckartz et al., 2008, p. 27). The interviews lasted between 30 minutes and one hour. The Appendix includes the declaration of consent in English and German, the interview guides for each expert group, and the transcripts.

Business area	Company name	Position
Consultancy A	Anonymous	Manager
Consultancy B	Anonymous	Consultant
Consultancy C	STM Consulting	Consultant
FinTech A	baningo	Co-founder and Managing Partner
FinTech B	George Labs	Managing Director
FinTech C	Paysafe	Head of Paysafecash Product Line
Challenger Bank	N26	Head of Business Development
FinTech Accelerator A	TheFactory	CEO
FinTech Accelerator B	Anonymous	Managing Director
Bank A	Steiermärkische Sparkasse	Head of controlling foreign investments
Bank B	Raiffeisen Bank International	Expert Markets & Investment Banking Business Development
Bank C	Erste Bank	Digital Banking Agile Delivery
Bank D	Raiffeisenlandesbank Oberösterreich	Department Digitalization and IT
Bank E	Sparkasse Niederösterreich	Head of the Vienna Department

Table 1: Interview partners

3.3 Data analysis

After conducting expert interviews, the appropriate method of evaluation needs to be adopted to achieve the targeted results. In this thesis, the author chose the qualitative content analysis by Mayring (2014), whereby the data is summarized and structured in a meaningful way. The qualitative content analysis allows generating a systematic and comprehensive description of data by assigning it to predefined categories. The writer of the thesis uses the inductive categorization method by Mayring (2014), considering only parts that are relevant for answering the research questions. The category system is derived directly from the interview material. This approach allows gaining insights from the data of the expert interviews without being distorted by theoretical considerations. The definition of the framework, depth, and the criteria for selection of the categories and the level of reduction allows achieving a logical category development by directly jumping to the level of category formulation. Hence, the inductive approach skips the step of building paraphrases (Mayring, 2014, p. 79).

The material of the interviews was worked through line by line to develop codes by marking statements that are related to category definitions. In the next step, the author divided these codes with identical meanings into categories, checked if the groups are comprehensible, and if they corresponded to the goal and scope of the research. In the end, the author reread the transcripts, validated the existing codes and groups until the final list of main categories was established (Mayring, 2014, pp. 80-83). The figure depicted below shows the steps of the inductive category development.

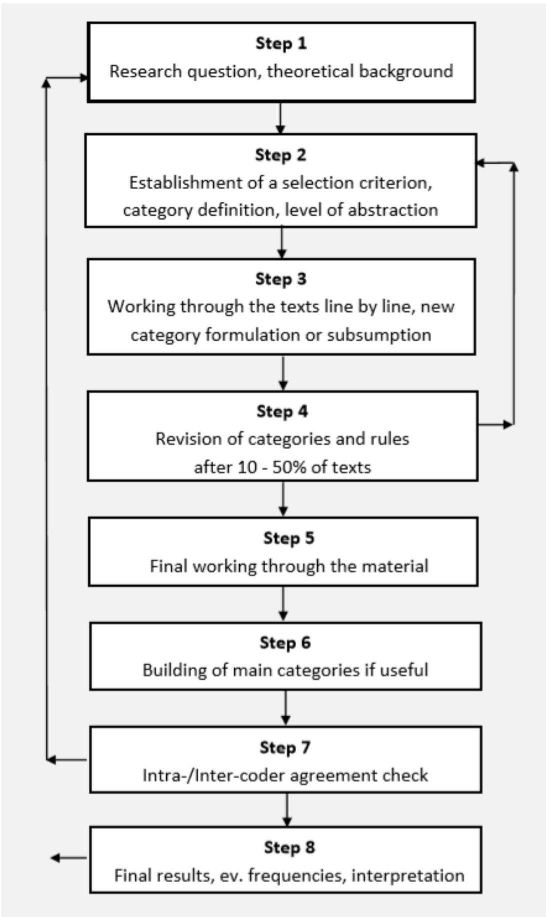

Figure 2: Inductive category development

(Source: Mayring, 2014, p. 80)

3.4 Category-based analysis

Within the framework of the investigation, the writer or the thesis formed ten main categories, reflecting the statements made by the interviewees:

- Category 1: FinTech industry in Central and Eastern Europe
- Category 2: Disruption
- Category 3: Success factors for the daily business
- Category 4: Pros and cons of traditional banks
- Category 5: Pros and cons of FinTechs
- Category 6: Cooperation vs competition
- Category 7: Success factors for collaboration
- Category 8: Regulation
- Category 9: Corona crisis
- Category 10: The future of banking

Intending to obtain an overall picture of the factors that lead to collaboration between FinTechs and traditional banks, all the categories mentioned above are considered relevant for answering the research questions. In particular, categories 6 and 7 illuminate the specific aspects of cooperation and the factors that make it successful. However, only the sum of all the groups contributes to a better understanding of the underlying subject and enables answering the research questions comprehensively.

The qualitative content analysis proofs to be an efficient tool to answer the research questions. Therefore, semi-structured expert interviews with 14 participants from different business areas such as consulting, FinTech, and banking are conducted, which provides the base for the category-based analysis and the findings of the study in the following chapter.

4 FINDINGS OF THE STUDY

As mentioned in the description of the research design, the author used the inductive content analysis by Mayring (2014) for the evaluation of the empirical results of this thesis. The following chapter presents the findings of the study by dividing the results into three main areas: the perspective of consultants, the standpoint of FinTechs, and the view of traditional banks. The writer of the thesis divides these areas into categories mentioned in the previous section, which have emerged from the evaluation of the research data collected.

4.1 Perspective of consultants

Category 1: FinTech industry in Central and Eastern Europe

According to the consultants interviewed for this study, there is a different level of advancement with diverse ecosystems of FinTechs in Central and Eastern Europe. On the one hand, there is a lot of FinTech activity in countries such as Poland, the Czech Republic, and Russia. On the other hand, there are fewer FinTechs in Hungary or Kosovo. Still, the companies from the CEE region are lagging behind more prominent players, mostly from the Anglo-Saxon world. Historically, the FinTech development started with a clear B2C proposition and essential mass products. Nowadays, there are FinTech innovations in every aspect of the traditional retail banking value chain and some in the area of corporate banking. When measuring the degree of FinTech development according to product categories, the market segment of retail clients is quite advanced and will also be the focus for the upcoming years. Looking at small and medium enterprises (SMEs), the degree is lower. However, it has improved in the last two to three years. When it comes to big corporations, FinTech advancement is particularly small, since it does not make sense for FinTechs to offer one product or service only.

Category 2: Disruption

The disruption of the banking industry is an often-discussed topic. Big Techs such as Google or Amazon are probably more critical to traditional banks than FinTechs. On the one hand, the challenger bank “N26” is very successful when it comes to the digitally minded younger population that is looking for a modern, stylish bank with a mobile-first approach. On the other hand, it is not as profitable as traditional banks. If a neo-bank has a banking license in the European Union, it can operate within the whole Euro area, so it still poses a threat to traditional retail banks.

Notably, the checking account area is essential to every customer. From this product, FinTechs can up-sell by offering other innovative offers. Consequently, traditional banks might lose customers to a checking account and later also business in other areas such as credit, brokerage, or savings. Furthermore, there is no reason for a customer to pay a lot for foreign exchange transfers when "TransferWise" is free. Other FinTechs such as "Raisin" or "Revolut" already have a relevant market share. For the better online banking interface of a FinTech, the customer would not switch its "George" bank account. However, pricing could be the reason for a switch to the cheaper option. The Corona crisis has also changed customer preferences in terms of payment. For example, many clients used to prefer to pay in cash, but within two months of Corona, this approach changed to increased use of mobile applications like "Apple Pay" or "PayPal" for processing transactions. The segments of payments and retail clients are most targeted by FinTech companies, followed by consumer finance, consumer lending, savings, and SMEs.

Category 3: Success factors for the daily business

The success factors depend on the specific customer orientation, whereby the focus lies on observing client needs and acting according to it. Success starts with superior user experience, achieved through the combination of a mobile application and the physical access to a bank branch. First, the company needs a successful product and has to derive a value proposition, a product proposition with a precise product-market fit, that continually has to be reiterated and finetuned towards the need of the client base. Second, the firm needs access to venture capital to fund its growth and the development of its position. Third, the FinTech needs a supporting ecosystem, which helps it connect with banks and potential venture capitalists. Fourth, FinTechs need a structured operating model with people that are in charge. Finally, financial institutions need to take into consideration the regulatory perspective. The combination of those five dimensions is essential for FinTechs to develop and grow. In the end, the customer experience will be the driver for success, which is economically very delicate, since a high quality in customer service always requires enough funds, but FinTechs should also offer products for customers with a low budget.

Category 4: Pros and cons of traditional banks

The typical traditional incumbent retail bank has a long-lasting tradition, a grown IT infrastructure, and a saturated workforce. Some retail banks are more than 100 years old and have experienced different banking development cycles, which equips them with vast banking expertise. The significant advantage is that traditional banks have access to the funds of their loyal clients, based on stable customer relationships. Another benefit is the capital that banks hold and can offer, for example, to SMEs that need more liquidity during the Corona crisis. The flipside is that the organizational structure is rather complicated with lots of decision bodies and processes, since many retail banks are not owned by a single entity, but by several organizations, which in turn makes it difficult to derive a clear will.

Furthermore, the IT infrastructure cannot keep up with the latest developments, since it is simply not possible to change the central core systems regularly. Additionally, traditional banks must battle with legacy systems or processes, and it is difficult to change this culture, since it is not only implemented in the systems but also the mindset of people. Traditional banks offer many different products, which makes them very powerful on the one hand, but on the other hand, it also contributes to the organization's complexity.

Category 5: Pros and cons of FinTechs

FinTechs are frequently set up for a specific purpose and can rely on the latest technologies. They are lean and agile in terms of their structure, since they have no legacy systems. Their most significant advantage is that they do not have any capacities, since they often do not have substantial clients. Furthermore, FinTechs are usually more user-experience focused than traditional banks. The most considerable disadvantage is that they do not have access to clients, and they do not have a trusted brand name. So, they cannot generate revenues from an existing client base, and they must acquire customers expensively. Therefore, FinTechs often offer a proof of concept (POC) instead of a real product. FinTechs have to build up everything from scratch, which can be a burden on the one hand, but on the other hand, it makes them more flexible and innovative.

Category 6: Cooperation vs competition

It depends on the specific value proposition, the goal, and whether it is a B2B or a B2C FinTech if collaboration or competition between a FinTech and a traditional bank is more beneficial for each party. For a B2C FinTech, there are no cooperation possibilities. Furthermore, "N26" is a direct competitor to traditional banks because they attract the same clients with similar products. When it comes to B2B, many FinTechs offer their services to banks, which provides an opportunity for both sides to collaborate. For example, FinTechs can gain access to clients, capital to further develop their growth, specific knowledge, and insights of traditional banks, but they have to be careful not to lose their independence and their agility. Incumbents can profit from the innovative solutions of FinTechs. For instance, since FinTechs offer superior value propositions and help incumbent banks be more customer-focused and improve the user experience. Besides, banks can reduce the time-to-market or the cost-to-market. It can be quite challenging to develop an in-house solution, and often the solutions designed by the state of the art FinTechs are better. For the FinTech “Scalable Capital”, it makes sense to cooperate, since they do not have the scale in terms of customer acquisition and can offer their service to traditional banks. The incumbent then has the advantage that it can make use of the technology of the FinTech and can sell it as their product. As a result, it is a win-win situation for the FinTech and the bank. Surprisingly, the list of successful cooperations is not that long. According to a consultant interviewed for this study, there are only ten to 20 collaborations that were successful so far. However, it is also hard to find the right place to implement new services into the complex infrastructure of a bank.

Category 7: Success factors for a collaboration

For a successful collaboration between a FinTech and a traditional bank, it is necessary that both players understand the specific characteristics of the other party, respect each other’s way of work, as well as each other’s strengths and weaknesses. One of the biggest obstacles for banks is their traditional and hierarchical corporate culture. While banks may understand the advantages of agile methodologies and user experience (UX) design, it is often hard to transfer this understanding into an actual change of culture. One consultant questioned for this thesis stated that “Banco Bilbao Vizcaya Argentaria” (BBVA) in Spain successfully shifted its focus to digitalization and agility throughout the entire organization. In the future, banks need to adapt their culture, because if they continue their procedures in the same way as many years ago, they might not be able to maintain their profitability. FinTechs should be aware that traditional banks cannot be as agile and flexible as them from a legal as well as from an organizational perspective.

On the other hand, banks must consider that FinTechs need fewer policies for regulating everything from public procurement to Human Resources (HR). Furthermore, the FinTech must offer a service that is easy to integrate into the bank architecture, which is a lot easier if it is a service in the cloud instead of incorporating it in the complex IT infrastructure of a bank. Besides, the degree of standardization of the FinTech solution plays a vital role, since individualizing the product or service for every single bank would make the procedure very difficult. What is more, the FinTech’s product or service should encompass benefits which are significant for the bank. Ideally, a collaboration combines the advantages of the incumbent bank, meaning knowledge, client access, capital, experience, with the agility and innovativeness of a FinTech in a separate entity and brings both strengths together to offer more convenience and customer-oriented solutions. In the end, the deal should make sense to both parties, for instance, if the FinTech provides a product that the incumbent is not able to build on its own in a reasonable amount of time or for a fair price and the retail bank can still be the owner of the customer. If the FinTech and the traditional bank compete on holding customers or the product, then collaboration makes no sense.

Category 8: Regulation

The regulation enables market security, customer protection, and a level playing field for all market participants. The most invaluable law for pushing innovation is PSD2, which reduced the market entry barriers in terms of the regulatory perspective. It was introduced in the European Union, adapted for every member country. PSD2 fostered innovation, since the customer can decide if the bank shares personal data with other banks, apps, or providers who then can make use of this data by giving the client a better credit score, by offering individualized products, and by helping to optimize individual finances. Many FinTechs were using this directive to provide innovative services that banks were not able to offer. The downside of regulation is that many banks dedicate their investments nowadays to regulatory initiatives. Therefore, many banks have spent almost 50 per cent of their bank budget on regulatory topics, which is then missing in the area of client-focused innovation. Furthermore, it would facilitate customer acquisition for new entrants to improve the Know Your Customer (KYC) process, which would lead to more competition and, consequently, to more innovation. In the future, digital channels will become more and more part of the banking industry and regulation.

The regulatory field for banks and FinTechs is very comprehensive and consists of different regulations. Banks do not want to explore any grey shaded areas, since they have more reputational risk and exposure than FinTechs. FinTechs are keener on exploring the boundaries of the regulatory rules, but they often do not have the workforce nor the experience to deal with these regulatory requirements, which on the other hand, also paved the way for other FinTechs. For example, “solarisBank” is a FinTech asset service that takes care of the whole operational and legal foundation of the business, while the company in question can focus on the customer and product proposition. What is more, it takes a minimum of twelve months to get a banking license, which is a very long time for a FinTech firm. Besides, the entry barriers are high, since know-how and capital are essential to enter the banking industry. The support of FinTechs by the government is a national topic and depends on the specific country itself. According to one of the consultants interviewed, in Germany, many FinTechs complain that they do not receive enough liquidity and credit loans, which is especially challenging during times of crisis. The Corona crisis might tackle this problem and accelerate digitalization, which will then foster the growth of the FinTech industry. In countries outside of the CEE region, such as Estonia, UK, or Singapore, the market entry is much simpler. So, on the one hand, barriers to starting banking are hard, but on the other hand, it also generates much innovative power when FinTechs try to overcome these hurdles.

Category 9: Corona crisis

The real impact of the Corona crisis is still uncertain. It could turn out as a worldwide economic crisis, or the economy could recover within a year. As mentioned by one of the consultants, banks are celebrating Corona, since it gives them access to multibillion additional credit volumes as an extra profit. However, Corona impacts the everyday life of banks, FinTechs, and private individuals. On the one hand, people are staying at home, which is a boost for digitalization and leads to an increase in online banking. A traditional bank with no online presence could make use of "baningo" to have bank clerks and personal finance advisors on there and share their expertise via video calls with their customers. Furthermore, the banking structure could integrate other digital products and tools such as Robo-advisors.

On the other hand, many people are losing their jobs, going into furlough, and have less money to spend because they only receive part of their wage or salary, which will then lead to lower investments. If people have a lower income, they are more sensitive to prices, and if they have to choose between a checking account that costs 10 euros per month, that would still be 120 euros more expensive per year than opening an "N26" account for free. As a result, a partnership with a FinTech could also lead to cheaper offers in that regard. Another effect of Corona is that banks are giving out many loans, backed by the government, and get a fee for that, which is positive. Besides, more people are interested in capital markets, given the volatility in the market. Therefore, people are opening brokerage accounts and are trading more, or they invested before and now sell everything. Banks get a brokerage fee for that, so in the short term, it is also favourable for them.

The biggest threat is that banks have to deal with many defaults, and then they will not be able to function anymore within their capital requirements. According to one consultant, several companies will go bankrupt during or after the Corona crisis, and banks have to build many loan loss provisions. Furthermore, banks support SMEs with liquidity to survive the crisis. In the medium term, banks will have a hard time because there will be a credit risk that they have to take now, which will be very costly. FinTechs might have to struggle to secure new funding for further development, since venture capitalists may constrain it in the future. This crisis also demonstrates that traditional banks are essential for the economy, since they ensure liquidity provision. There are many different areas affected, not by the virus itself, but as a result of social distancing and online penetration. When going one level deeper, some central banks are directly lending money to the government and drive down interest rates. Since the great recession of 2009, there is a negative interest regime, which puts pressure on gaining a positive share or dividend on the savings business of traditional banks. At some point, banks have to charge negative interest rates to their clients, so many of them will leave the banks when they have to pay negative interest rates. The economic consequences of the Corona crisis have a considerable influence on banks and FinTechs, but it is still unsure to what extent.

Category 10: The Future of banking

There are two types of FinTechs that either cooperate with traditional banks or compete with them, depending on which proposition is the better fitting one. Currently, there is a tendency for more cooperation, since it is rather challenging to disrupt a whole incumbent industry. Furthermore, FinTechs are more likely to succeed in the first steps when deciding for a partnership. On the one hand, some FinTechs provide products or technology for traditional banks. For example, "Scalable Capital" is a Robo-advisor, which is introducing a new wealth management service for different client groups and is seeking for more collaborations with traditional banks. Hence, "Scalable Capital" is offering its product but also licenses the product to conventional banks. There are also other examples of FinTechs that are only trying to solve one specific problem in a value chain. Some FinTechs will become real market players, while others might not last long.

On the other hand, there are FinTechs which are aimed for war with traditional banks and are focused on challenging them by offering traditional banking products more innovatively and digitally. Furthermore, when a customer only has a limited margin, the client will focus more on prices and prefer the cheaper offer of the FinTech over the more expensive product of the bank. For instance, Big Techs such as “PayPal” and “Amazon” have started to offer SME loans. “Amazon” can easily calculate the credit risk and provide a perfectly suitable SME loan. Consequently, some traditional banks will lose market share and might even disappear. Other traditional banks will adapt and reinvent the organization and structure to be more agile and react to client demands. Besides, they will adjust their product offerings in a more client-focused way, either with partnerships or on their own. Another possible outcome for the future is that traditional banks start to launch FinTechs with new employees, systems, and processes and then migrate the existing business to the greenfield operation.

4.2 Perspective of FinTechs

Category 1: FinTech industry in Central and Eastern Europe

Referring to the FinTechs interviewed for this study, the FinTech industry in Central and Eastern Europe has some fast-growing ecosystems, whereby every region has differing focuses and maturity levels. Experts from FinTechs confirm that countries in the CEE region are sometimes even more advanced than in Western Europe. In the Czech Republic and Hungary, there is a lot of FinTech activity in the payment sector, while Russia is very advanced in blockchain technologies. Furthermore, in Poland, there are FinTechs such as “SkyCash”, “Twisto”, or “Monese”, which go into business areas not yet addressed in Western Europe. For instance, “Twisto” is a payment option that collects invoices over a month, and at the end of the month, the customer pays the full amount. “Twisto” allows the user of the app to shop in different online stores that accept it. In Austria, FinTech is a rather new phenomenon, but during the last couple of years, the FinTech scene evolved, and new initiatives such as “baningo” were born. In Eastern European countries, Germany, the Nordics, and the UK, the FinTech industry is even further developed, not just in terms of FinTech companies, but also in terms of mindset and collaboration with FinTechs. According to the FinTech Accelerator “TheFactory” that operates in Oslo, the Nordics offer a great test market, since the network is small, and it is easy to navigate and approach investors. When looking at neo-banks in Central and Eastern Europe, there is “Tinkoff” in Russia but not any other neo-bank that has made it out of their country borders. “Revolut” is also successful there, but even though it has a banking license in Lithuania, it is a UK based company.

FinTechs with B2C offerings target predominantly people that want to be independent of the traditional ways of payment or financing, especially in areas such as microcredit, lending, and car loans, but also personal funding. For example, “Monese” is a UK based FinTech that also operates in Central and Eastern Europe, which focuses on people that struggle to enter the traditional banking ecosystem due to a bad credit score or their immigration status. This example shows that FinTechs, which define a clear niche and offer services that a traditional bank would not be able to deliver, can become very successful. Many FinTechs are supporting B2B processes of banks and help traditional banks digitize their operations, rather than funding their own scalable global business. As stated by the managing director of a FinTech Accelerator in Austria, there are highly educated tech talents in this area and many people that are funding businesses.

Furthermore, venture capitalists, governments, and public institutions try to foster the development of FinTechs. So, on the business side, the proposition and technology are advanced, but the capacity to scale is lacking. This problem is related to missing capital for FinTech development. For instance, there are start-ups in Vienna, Prague, Bratislava, Bucharest, and the Czech Republic, which have decent propositions, but they cannot scale across the region or more extensive because they receive no or not enough funding.

Category 2: Disruption

Digitalization is currently the most significant trend in the banking and finance industry. Customer demands and possibilities in technological development are changing, which makes it easier to disrupt parts of banks. The disruption started with payments in the banking industry, and there was also a peak on free current accounts. Nowadays, especially in retail banking, there are many FinTechs, for instance, P2P lending, but also regular lending, savings and investing platforms, Robo-advisors, and SME banking. Furthermore, foreign exchange (FX) is another disrupted area. In countries that have another currency than the euro, for example, the Czech Republic, Romania, and Bulgaria, FinTechs that offer a favourable currency conversion such as “TransferWise” or “Revolut” are doing very well. Consumer loans are another segment that is targeted by FinTechs that are willing to take on more risk. Banks often tend to avoid this market segment, since it poses the risk of the inability to pay back loans because it brings their clients in a loop of buying things they cannot afford. Over the last years, FinTechs have moved from pure user experience innovation to a more technological approach. For example, there is a high demand for cryptocurrencies in Central and Eastern European banks. Furthermore, in Russia, Belarus, and Ukraine, banks were dealing with blockchain much earlier than in Austria or Germany. Nevertheless, many FinTech solutions are more likely to support traditional banks than being standalone B2C products.

Category 3: Success factors for the daily business

Many customers have the problem that banking is old-fashioned, and sometimes it is complicated to get in touch with bank clerks. According to the Co-founder of the FinTech “baningo”, nine out of ten people are researching their financial issues online. However, still, two-thirds want personal advice. Hence, the human touch in banking is missing, even though there are good data models and algorithms. Trust is the differentiator in the future. In a world of ever faster, speedier developments, customers expect that they can trust their bank, which is also the reason why banks continue to provide trusted services and focus on IT security.

Furthermore, it is more important than ever to evaluate risks and be close and reachable for the customer. Especially in times of uncertainty, customers need a trusted partner. Banks can satisfy their clients with personal interaction, which is getting scarcer in the future and therefore increases in value. It is essential to take the customers by the hand and empower them to manage their finances digitally via phone or laptop. Consequently, customers can understand their financial life and make better decisions for the future. When offering a sophisticated digital platform and providing access to any device and digital channel that customers have, new clients will be attracted, while old ones remain. Another success factor is to hire people that have experience and advanced skills, which work in a fast and agile way with passion and the right strategies. In general, FinTechs should not rely on what they have achieved in the past but rather concentrate on the niche identified where they have a cutting edge over incumbents and exploit this advantage with their expertise in the respective field.

Moreover, being in a supportive environment that is creating sandbox regulations is helpful, since it is sometimes hard to receive a license, which also requires understanding the local legislation and having access to lawyers that know how to apply for banking licenses. Balancing all these factors and adapting in time to changing customer demands is the key to success. For neo-banks, like “N26”, it is crucial to have a lean IT system that enables catering to millions of customers with fewer resources than traditional banks need to have.

Category 4: Pros and cons of traditional banks

Retail banks have to consider different client segments ranging from pensioners to young people, families, single and divorced people, shared accounts, and people with varying levels of income if they want to gain a mass market with millions of customers. One of the main benefits of traditional banks is that they have a solid financial background and backing.

Moreover, they have already gained the trust of their customers over the last decades, and their brand is better established than the one of a new FinTech brand that nobody knows. Most people that are customers of challenger banks like “N26” or “Revolut” use it as a second bank account and still have their primary bank account with a traditional bank. In most parts of the world, the closeness to the customer is another advantage of conventional banks. Having a bank branch available and being able to talk to a bank advisor personally are essential factors for building and maintaining trust and closeness. Although, in some countries, there are no bank branches, and therefore, people are underbanked. In such cases, digital offers can be a solution.

On the one hand, customers are an opportunity for generating profits, but on the other hand, it gets harder for banks to be agile once it has millions of customers compared to having a hundred thousand customers. Therefore, a large bank is more cautious with what it does and less likely to try new things. Banks have a particular responsibility, and regulators properly watch them. They cannot risk losing the trust of their customers. Banks maintain their services rather than moving forward. There is a lack of skills in the digital field, and the passion for transforming the business is missing. Another disadvantage is that traditional banks have their own legacy business and IT systems, and even if they want to be more innovative and produce new digital products, these systems often hinder them. Since it is very costly to change the complex systems, traditional banks either do not change it or if they do, they try to build another system on their legacy system, which then makes it even slower and more complicated. On top of that, there are cultural issues, which makes it hard for them to be innovative and to keep up with the speed of FinTechs. As a result, customer-focused innovation is much harder for traditional banks than FinTechs, which is also the reason why they tend to outsource it.

Category 5: Pros and cons of FinTechs

Most of the time, FinTechs consist of small teams and have dynamic people that can quickly adapt to new circumstances. What is more, FinTechs are reactive and take more risks than banks. FinTechs can easily apply a new business model and see if it works or not, while traditional banks would have to fear reputational damages of their brand name when working on a trial and error basis. Other advantages are the speed of FinTechs and their lack of historical dependencies, while larger banks have a clear, rigid structure in place that is often too complex to enable innovation. Usually, FinTechs are specialized in a particular part of the business and focus on this specific area.

Furthermore, they are oriented very strongly on customer demands, developing banking from a commodity to user experience. The downside is that they do not have an existing customer base and first must gain the trust of the customers, which they do by developing customer-centric solutions. When FinTechs are entering the market, they need to start from scratch, which is a significant effort on the marketing side. Furthermore, they usually lack the network that incumbents have and sometimes struggle to bring their product on a large scale to the market, since only a few FinTechs have enough funding. Therefore, a lot of FinTechs switched from competitive approaches to collaborative ones with traditional banks. However, FinTechs often struggle with getting into the B2B business area, since more profitable customers tend to stay with conventional banks, which they trust, since they have a long history of business relationship with the bank.

Consequently, FinTechs have a hard time entering the corporate banking area, but they are successful in attracting private customers. The head of "Paysafecash" stated that FinTechs such as "N26", "Monese", "Skycash", or "Twisto" do an excellent job in B2C business models. "N26" has modern IT systems in the back that allow the company to scale. As a result, "N26" can offer its product around the globe, which makes it more profitable at a lower margin, while traditional banks develop it for only one market.

Category 6: Cooperation vs competition

There are pros and cons for cooperation and competition, but the decision which direction to go for always depends on the specific business model and FinTech type. If the FinTech has a business model that disrupts a product from a bank, there are no cooperation possibilities. However, if the FinTech offers a service that enhances the proposition of banks, then banks will be happy to integrate it. In the end, it is always a strategic make-or-buy decision, which is decided on a case by case basis. Collaboration can be challenging, since banks have to be ready to work with FinTechs, and they have to respect each other's internal agendas, politics, and priorities.

Moreover, it takes time to understand each other and make sure that there is a good fit between the FinTech offering and the solution that the bank needs. If a Fintech does not make money by disrupting the market or is not able to attract customers by itself, then it makes sense to provide financial services to banks that already have customers instead of aggregating customers on the FinTech's interface. Getting access to the bank's customer base also speeds up the scaling, whereby FinTechs need to make sure to work with more than one player to avoid being limited in growth at some point. Another option is that they could be acquired by a traditional bank, which would hinder them from going global and scale. FinTechs are usually highly specialized in a specific area, which often allows them to produce more innovative solutions than traditional banks and hence offer a better user experience.

Moreover, FinTechs have deep customer insights and skills that banks often have to outsource to them. FinTechs are faster in finding out which solutions work and how to develop customer based and often cheaper products and services. Still, FinTechs sometimes need support for the entry into the market and with the regulatory requirements. When banks notice that some FinTechs are gaining market share while targeting the same customers, they can form cooperations by using the FinTech's solution and integrate it in the bank's products seamlessly instead of building it on their own, which generates ease of use for the customer and saves a lot of money and time. The bank can create an ecosystem of partners around its core and thereby provide the best solutions to its customers. Since the assets and strengths of FinTechs and traditional banks match very well, collaboration is often reasonable so that both parties can learn from each other and open their eyes for new opportunities. There are already a lot of corporate banks that collaborate with FinTechs, which use the incumbent's infrastructure for a B2C offering behind the FinTech brand name, which enables access to private customers. Since a bank license is expensive, not all FinTechs apply for it and therefore opt for a collaboration. For example, "baningo" collaborates with German "Sparkassen", Austrian banks such as "BAWAG" and "Volksbank", and a bank in Switzerland, whereby the "Sparkassen" IT subsidiary takes care of the legal, compliance, and IT security checks which make it easier to get solutions through and shortens the time-to-market. Another advantage of collaboration is that, if a bank joins a platform, it also gets more visibility and transparency. However, cooperation is not always beneficial. For instance, the challenger bank "N26" is directly competing with traditional banks and posing a threat to retail banks. "N26" is more scalable in its processes and profitable with lower margins because the neo-bank does not have legacy IT systems or physical branches. Furthermore, there are some core elements of banking that banks can do better on their own, where collaboration may not be the best option for them.

Category 7: Success factors for a collaboration

First of all, the bank must see the pain points that the FinTech is solving and the willingness and ability to work together and creating value. The incumbent should serve the customer's needs in the best possible way without worrying about its internal segmentation process and procedures. There must be a precise separation of the mission. The bank and the FinTech should be aware of how and where to contribute, and what the expectations and responsibilities are, then both parties can work towards a collaborative goal. A FinTech can be a service provider to the bank, or they can create a joint offering towards a shared customer. In general, there should be a clear mutual benefit and value-added of a potential. Besides, there is supposed to be professionalism on both sides. When starting a FinTech, it is crucial to be as connectible as possible to the existing IT systems of the incumbent, but still, act independently and provide the end-to-end digital process for the customer.

Furthermore, it is a benefit to have experience in banking and speak the language of banks when aiming for a collaboration. Another critical point is that both market players should meet each other on eye level, joined with trust and bonding. The best way to approach a bank for collaboration as a FinTech is to work step by step and start with a pilot phase by offering the bank the chance to shorten its time-to-market with a minimum viable product (MVP) or any proof of concept to test how it works and see if it is compatible with the traditional banking structure. This way, the bank does not have to invest much money for not knowing if the solution is consistent with the banking system. Another option is to offer the service for free as a Freemium concept. Then the bank can test it for a limited time, and if it works out, the FinTech can sell the service to the bank. When looking for the right collaboration partner as a bank, it is advisable to do a strategy review and assess the FinTech's innovativeness of the solution and the skills of the team. Besides, the FinTech's product or service must fit the bank and the maturity of the company. One of the biggest challenges of collaboration is timing, since both sides need to be ready.

Furthermore, the corporate thinking of banks and the way of sticking to bureaucracy can be a hurdle for FinTechs. Everything has to be aligned, and decisions-making is too slow given the involvement of many people. It is also vital that the bank understands the FinTech's proposition and to figure out whether it fits the bank's customer base and if it is suitable for the mass market. If these factors are proved and provided, it is an excellent base for functioning collaboration. The FinTech can then put its solution in place and use the existing IT systems of the bank. However, this can be difficult, since on a small pilot, everything might look great, but the project can be a failure when deploying the solution into the real market. Another challenge is the budget because many banks must reduce their monthly cost bases by scaling down and closing branches. On the one hand, this is positive for FinTechs, since they can offer advisors online for the incumbent, but on the other hand, if the bank has to cut costs, it is not going to decide for a new project where it has to invest money.

Category 8: Regulation

Regulation is one of the main drivers in the banking and finance sector, and there is an excellent legal framework in the European Union. Banking regulation probably has some of the strictest rules, since there is much money from customers involved. Regulators have much power to change the financial industry. On the one hand, they can drive innovation by opening it up, but on the other hand, they can also hinder it. In the end, regulators such as the Financial Market Authority (FMA) in Austria or the Federal Financial Supervisory Authority (BaFin) in Germany, should find a balance between enabling innovation and intervening when necessary to prevent the misuse of these services. In particular, the BaFin takes a very close look and has stricter regulations to avert terror financing, money laundering, or to limit and regulate the access and use of services that pose a threat. For example, PSD2 drives the opening of banking and financial services and allows the aggregation of customers or account information service. This directive creates space for new players and boosts FinTech development. The open banking application programming interface (API) made it easier for FinTechs with innovative business models and technologies to develop further services for customers. Some markets offer FinTech licenses, but they do not allow them to provide all banking services. Besides, PSD2 does not cover every banking product, and it is hard to say how exactly it will evolve in the future. Governments have to be close to these developments to be able to react and regulate them.

When looking at challenger banks like “Monzo”, “Revolut”, or “N26”, the most significant challenges are compliance and anti-money laundering, since more frauds happen when it is easy to open a bank account. While it may be simple to be compliant when having one million customers, it can become complicated when the customer base grows. During the last couple of years, there was an immense budget effort to be compliant with Markets in Financial Instruments Directive 2 (MiFID2) and PSD2, so there was not much money left for innovative projects. Therefore, it was hard for FinTechs to come up with something new and get financial support. However, this is improving, since all Basel regulations, MiFID2 and PSD2 are already in place.

Most neo-banks currently have a full banking license in Europe and, therefore, also need a regulatory team, which requires much funding. It helps to acquire a FinTech license before getting a banking license, whereby the FinTech has to have a specific size and expertise. Other options are that the FinTech in question collaborates with a bank that has a permit and launches its products with the bank license or the FinTech operates under a regulatory sandbox and tests the products on a small scale until it can start it. In Austria, there is not much support for FinTech companies, but there are initiatives by FinTech entrepreneurs and the network that they are creating. Moreover, the FMA started to be available for questions for FinTechs. Still, besides the business angel initiatives and getting the seat round funded, Austria needs a better ecosystem of venture capital providers. The lack of funding is the reason why many start-ups often go to another country after having started in Austria.

Category 9: Corona crisis

The Corona crisis already has a considerable impact on the financial sector. If a company's business model is strongly related to B2C, for example, if consumers use FinTech services that were not available during Corona, they struggle during this time. FinTechs with online business models like "PayPal" flourished during the Corona crisis. Therefore, the effect of the crisis depends on the core offering of the firm in question. Banks react differently to it. Either they have lost interest in start-ups because they have to focus on their own business, or banks realized that they are behind and try to speed up the processes by either internally creating new solutions or finding other initiatives designed by FinTechs. In the beginning, Corona triggered banks to panic, since they did not know if the customers will be able to pay back their loans in the future.

Furthermore, remote working and the high number of questions by customers wanting to profit from public support were challenging banks at the beginning of the crisis. However, banks moved from panic mode to crisis mode and learned to organize themselves again. In Austria, banks were able to help the economy. For instance, banks are assisting customers to receive liquidity to survive the Corona crisis, but they also need to make sure that people understand how to make the best use of that liquidity. Another impact of the Corona crisis is that the valuation went down. For instance, the challenger bank "Monzo" has reduced the value of the company to around 50 per cent, which implies that there is less liquidity in the markets. In the short term, the volume of transactions also decreased during the peak of the health crisis, since restaurants, bars, and shops were closed. The positive aspect is that many trends, such as digitalization, took a significant leap forward, which will also change customer behaviour in the long term. For example, people that had never imagined opening a bank account digitally or communicate with their bank online did that for the first time during the Corona crisis. The transformation to a digital experience helps the whole financial industry. The long-term effect is still not foreseeable, but for FinTechs and neo-banks, it could have a positive impact.

Category 10: The Future of banking

In the future, banks should start thinking more client-focused and change their mindset on behalf of their customers for them to survive. Still, banks are catching up, and they are on their best way towards implementing more digital solutions. Some FinTechs might be able to help banks get back on track after the Corona crisis because they can show banks how to get in touch with clients online or help them improve and digitize their processes and make faster decisions. However, in retail banking, some FinTechs and neo-banks threaten the existence of traditional banks. In the sphere of corporate banking, banks will stay relevant in the foreseeable future and, to some extent, also in the private banking area. There are still areas where a private individual would go to a traditional bank instead of a FinTech or challenger bank. In smaller transactional volume cases, a customer would go to a FinTech, while clients prefer a traditional bank when dealing with riskier topics.

On the one hand, FinTechs need to find a niche where they are superior to conventional banks. On the other hand, banks need to focus on their core business and try not to lose too many private customers to FinTechs. Both can benefit from each other. As a FinTech, especially in Central and Eastern Europe, it is crucial to think more globally and not only offer the product in the own market to get more significant and scale.

4.3 Perspective of banks

Category 1: FinTech industry in Central and Eastern Europe

The FinTech industry in Central and Eastern Europe is evolving, and there has been much progress recently. Nevertheless, compared to other parts of the world, such as Silicon Valley in the US or China, it is not yet where it could be. When looking at it from a European perspective, there is still a significant gap between Western Europe and the CEE region in terms of FinTech development. Several reasons explain this gap. First, there is a lot of talented people in places such as Berlin and London, but there is less interest in starting to work in FinTechs and start-ups in Central and Eastern Europe, as stated by an expert at “Raiffeisen Bank International”. Second, there is a funding gap in Eastern Europe, and the market is not as mature and as big as the one in Western Europe.

Furthermore, bureaucracy and burdensome laws hinder the advancement of the FinTech industry in the CEE region. Even if a FinTech has good people and funding, it still has less visibility and market share that it would have in Western Europe. FinTechs that started in Western Europe such as “Revolut”, “TransferWise”, “Monzo”, “Atom Bank”, “N26”, would never have had the same velocity and expansion when launching in Hungary, the Czech Republic, or Bulgaria. However, in Eastern Europe, a lot of FinTechs have caught up a lot in recent years, since they got the know-how from the West. In Central Europe, in countries like Austria, Germany, or Switzerland, it is still developing, but there is already an established FinTech scene. In Austria, the development mostly takes place in the payment sector. For instance, “Easy Bank“ was one of the first online banks in Austria to offer payment transactions.

Category 2: Disruption

In most markets in the CEE region, there is a high level of disruption, but it is not consistent, and depending on the specific market. For instance, there is “Tochka Bank” in Russia and “Tinkoff Bank” in Romania. In the Czech Republic, there are players such as “Akcenta” and “N26”. The client segments that are most disrupted by FinTechs in the CEE region are payments and retail. Retail banking is much more intuitive than investment banking or corporate banking. Therefore, most solutions on the market are covered by payment providers that offer essential services such as transactional banking for private individuals.

In the transactional layer, FinTechs do not have a banking license and operate as a payment service provider under the PSD2 regulation, which also implies that the customer has no security or protection from the government. For example, if a customer has an account with “Revolut” and the neo-bank would go bankrupt, the client’s money is lost. On the other hand, “Revolut” is offering free foreign exchange rates at the interbank rate, which is almost impossible to do as a bank without making a loss. Challenger banks such as “N26” are providing standardized mass products that enable an easy-to-use digital experience often at zero costs for the customer. The solutions of neo-banks have a cost advantage over traditional banks, since they do not have any legacy systems.

Furthermore, banks have a broad business model that offers services to retail and corporate customers, which can be individualized and, therefore, also increases the price. The disruption factor can be challenging for banks, since they have to provide competitive offerings, or they will lose market share. However, FinTechs have not affected the central banking business areas that much yet. With increasing capital, customers usually prefer having a stable institution with a banking experience that takes care of their finances. Besides, older generations also prefer direct contact with bank clerks in the bank branches. Digitalization in the finance sector is currently pushing banks forward in terms of user experience and customer journey. Banking is an immaterial business that is based on contracts and includes money transfers, whereby all processes can be digitized. New technologies and digital capabilities fundamentally change customer expectations and interaction with banking services. For banks, it is vital to get as many clients as possible into online banking so that they can do their entire payment transactions online.

Category 3: Success factors for the daily business

A bank needs to have a stable cost base and allocate its resources effectively where it can make a difference, since customers want to have a cost-efficient and pleasant online experience. The stability of the solution is essential for the success of the business and should be available 24/7. While online banks are immediately interchangeable, traditional banks provide customers with trust and stability. Another critical factor is that banks need to be in direct contact with clients and understand the customer's needs. Therefore, it is helpful to collect the clients' feedbacks and to create a large community on online channels such as "Twitter" or other platforms. Furthermore, it is crucial to improve the user experience in the best way possible.

Category 4: Pros and cons of traditional banks

One of the most significant advantages of banks is that they have earned the trust of their clients throughout long-lasting customer relationships and therefore have an existing customer base. People know the brand name standing for quality, security, and trustworthiness, to which they can easily connect. Banks know their customers very well. Furthermore, the existence of Omnichannel, which means the combination of physical branches, personal contact, and digitalization, is also a considerable advantage of incumbents. The disadvantage is that banks are slower due to their large corporate structure with different entities that need to consult each other and their large number of employees, which makes it also more complicated to change things and more expensive to operate. The main four categories of differences between traditional banks and FinTechs are people, legacy IT systems, processes, and corporate culture.

All of these clusters have their pros and cons. Banks usually have employees that have gained a lot of experience, which makes it easier for them to survive in times of crisis, since they already have been in one before and therefore know how to react to different situations accordingly. In comparison, FinTechs usually have very young employees that do not have the experience to deal with shocks in the same way as large banks do. On the other hand, when it comes to adapting to new market conditions such as digitalization and disruption, FinTechs are way better in responding to market trends than banks. When looking at banking systems, most banks have implemented them in the 60s, 70s, or 80s. So, the year of the implementation also marks the age of the legacy system, which has mostly disadvantageous effects, since the only positive one is that it is still running. Therefore, banking systems are stable, implying that they do not have a lot of security breaches and server downtimes. The downside is that many investments must be made in manual workarounds and manipulation to change the system. The cluster of processes combines the banking infrastructure and corporate culture. In terms of stability, safety, and good governance, banks have the most secure methods. They carry more obligations than FinTechs and therefore are more regulated and checked regularly, which makes these processes also bureaucratic.

Category 5: Pros and cons of FinTechs

First of all, FinTechs are by far more agile, which allows them to react faster to changes in the environment and customer demands. FinTechs usually have up to 100 employees, and everything is under one umbrella and, therefore, simpler to align compared to traditional banks. They do not have to deal with bureaucracy to the extent that conventional banks do, and the regulatory rules are less strict. FinTechs have a cost advantage with their IT systems and cloud initiatives. Furthermore, their processes are adaptable, user-centred, and flexible. FinTechs can only adapt one feature without the need to change everything, which also allows them to have new releases within a week. Thus, these systems are differentiating the outcome of the product. When it comes to expansion and growth, FinTechs have an advantage, since they are less regulated compared to traditional banks and often do not have a banking license. The disadvantage is that they need to acquire new customers and build a base from scratch.

Furthermore, they have the customers' data, but they do not know the individuals behind it. The standard customer puts less money on an online bank account than with a traditional bank, since many clients also have a second account with their trusted bank, which also offers a broader product range. FinTechs still have to break even with their number of users, and when giving out a free account, FinTechs still have to generate profits also if their operating system is cheaper than the one of traditional banks. Finally, FinTechs need highly specialized experts in the respective field. Therefore, employees are provided with an environment to stay long-term in the company.

Category 6: Cooperation vs competition

Historically, banks have always competed with each other, but this changed in the last years when Big Tech giants such as “Apple”, “Facebook”, and “Amazon” entered the payment industry. However, the disruption is not coming from these players but rather from FinTechs. The challenge is that FinTechs are bringing up new innovative solutions, and banks need to catch up and rethink their business model in order not to lose clients to competitors with more affordable products and services. In general, challenger banks directly compete with traditional banks while other FinTechs are providing technology solutions that are not in direct competition with incumbents but rather provide additional services.

According to the banks interviewed for this study, it depends on the specific business model and the people working in the management positions which approach is the best. For banks, it is vital to know where the expertise of the FinTech lies, who the clients are, what the product is if it is compatible with the banking infrastructure and if the solution meets the bank’s needs. Furthermore, it is beneficial for banks to collaborate with FinTechs in areas that can be standardized or where they are ahead of incumbents. Collaboration can also help banks reduce processing costs. Another critical point is the amount of funding the FinTech has and how dependent it is on new revenues. In the end, it is a strategic decision that must be taken by both sides.

On the one hand, there are business models that are challenging banks in a competitive way, whereby banks lose customers and market share. For example, some FinTechs are combining banking services with Airbnb or booking.com, which adds value to the original offering or complements it and therefore challenges banks to take more innovative approaches as well. On the other hand, if a partnership has more benefits than losses in the long-term and adds to the underlying value proposition, it makes sense to collaborate. Banks can provide their infrastructure, capital, client base, and data, while FinTechs offer their know-how and expertise, new systems, or disruptive ideas and can implement their services. FinTech firms and banks can benefit from collaboration by combining their advantages and resolve their disadvantages. Both players can learn from each other and enrich the offer to their clients by working together.

Additionally, it is crucial that the goals and vision of the FinTech and the bank match. For example, “Erste Bank” opened its platform for FinTechs to join and offer their solutions to the client base of “Erste Bank”. Furthermore, the FinTech needs to show the readiness to collaborate on a partner level, and it must prove its stability in the market so that the bank does not have to fear that the FinTech might be gone again after some months. FinTechs can help banks deliver their services faster and more efficiently. Often it is cheaper for banks to work together with a FinTech than to produce a solution in-house, and it enables the bank to focus more on its core activities.

On the other side, if FinTechs cooperate with various banks and grow, they can reduce their costs. In general, FinTech firms that are offering cards are more likely to cooperate with banks. Another benefit of collaboration is improved customer acquisition for both parties. Challenges in cooperation can arise when the FinTech and the bank have a different corporate culture and way of working, so if the FinTech has a purely agile methodology, but the bank is waterfall oriented. Furthermore, in large organizations, people feel less responsible. They are often sceptical and resistant to change. Another challenge may be the age difference between the people that collaborate, which implies communication problems that might arise.

Moreover, estimating implementation requirements on the bank side is taking up too much time and money. Consequently, the project might die when it becomes too expensive, and the bank’s infrastructure is not adaptable enough to handle the new systems of the FinTech. Sometimes banks are providing funds for FinTechs, but in the end, it turns out that it does not create any value for the clients, only marketing value and, therefore, a better image. One more obstacle is the procurement process, which is very bureaucratic, since everything needs to be checked and approved.

Category 7: Success factors for a collaboration

For a successful collaboration, the FinTech and the bank must meet each other on eye level and understand how each of them can contribute so that it generates a win-win situation for each party. They need to commit to an open relationship with clear responsibilities and a joint vision that they can pursue. For banks, the reliability of the FinTech that it collaborates with is vital and that it follows the defined targets. Besides, the market orientation of the FinTech should help improve the banking processes, and the benefit for clients should always be in focus. It is also essential to think about how to deal with data protection security issues so that no data goes outside of the bank when cooperating with FinTechs. It is a significant advantage if a bank collaborates with a FinTech from a specific region that knows the local market and therefore has valuable knowledge about the customer demands of that area. From a bank perspective, it is vital that the FinTech has funding, that it is durable and able to perform in the long term.

Moreover, flexibility and professional people with innovative solutions are required. Furthermore, FinTechs need to deliver value on the planned date. On the bank side, the right people with decision-making power should be in charge, and they need to be willing to collaborate with a start-up that might have recently entered the market. Therefore, the full corporate support, which translates into the backing by the management, also contributes to a successful collaboration.

Category 8: Regulation

On the one hand, the legislation in the CEE region protects established banks, since they must run various processes and document it. Furthermore, they are undergoing audits, which makes it expensive and complicated to run a bank in this regulatory field. Therefore, financial institutions need a specific size to be profitable to manage this cost. Every country has different regulations and requirements, and financial institutions need to adapt their business processes and IT accordingly, which creates an entrance barrier for challenger banks. Besides, it requires much funding to develop a prototype into a production-ready system. However, regulation is necessary to make processes stable, protect customers, and the overall economy by reducing the risk that comes along with it. It ensures a certain quality and reliability in favour of the client. When forming a collaboration between a FinTech and a traditional bank, regulation should be the same for both parties, including that FinTechs comply with the laws of the bank, even though the banking licenses are different. More precisely, since banks offer a vaster product portfolio than FinTechs, their banking license is more comprehensive.

On the other hand, current laws in the financial sector are going in the direction to help FinTechs. For example, the PSD2 regulation brought about changes to benefit the end-user. Despite this, Europe is lagging in many areas of digital business, PSD2 is a chance to catch up and boost innovation. Since the incorporation of the PSD2 regulation on the 14th of September 2019, banks have to make their APIs publicly accessible to FinTechs, so that FinTechs can use the bank’s customer data. PSD2 is a showcase that regulation is aiming to enhance innovation in the financial sector and also incentivizes cooperation between banks and FinTechs. For example, Erste Bank put open banking into action and is offering a portal for FinTechs that enables them to access the bank’s environment and get access to account information. “Erste

Bank” also has a sandbox, where FinTechs can put their solution in place and test it before the launch. In Austria, “Erste Bank” is one of the rare banks that follow the open banking approach.

The implementation of new regulations followed the financial crisis in 2008. The government also supports FinTech solutions with laws and audits promoting the development of financial markets and the economy, which is on different levels in the CEE region. The Austrian minister for digital and economic affairs and business manager Margarete Schramböck was present at many technical achievements and events that support FinTech initiatives. However, there is less support for start-ups in Austria compared to Berlin or London. In general, there are more regulatory rules for banks than FinTechs. For instance, banks have asset quality reviews by the European Central Bank that include stress tests to show, if a bank can maintain its liquidity in times of crisis. FinTechs do not have these kinds of tests, and, if a FinTech went bankrupt, customers would lose their money without any consequences. Banks are regulated more strictly than FinTechs, since they have more responsibility due to their large customer stock and scale.

In conclusion, PSD2 is helping FinTechs to grow, but it is hindering innovation in banks, since they have to invest many resources in implementing regulatory requirements such as Basel, KYC, and the General Data Protection Regulation (GDPR). Banks are highly regulated either locally or by EU law, which secures financial health but leaves them little time for innovative approaches. On top of that, incumbents have rigid structures and need to proceed strictly to old guidelines. FinTechs companies enable users to open an account within a couple of minutes, while traditional banks have to give a potential customer several documents to sign, which slows down the process of customer acquisition. If banks had not disregarded innovation to such an extent, FinTechs probably would not have appeared on the market.

Category 9: Corona crisis

The Corona crisis impacts the financial sector in many ways: the unemployment rates are growing, and private consumption went down. Since the financial sector finances all the other areas, such as tourism, culture, events, and manufacturing, a high number of non-performing loans in lending is expected, which leads to increased risk costs for the next couple of years. On the one side, banks are improving their reputation, because they are helping private individuals and supporting many companies that are facing financial problems to maintain their liquidity. Bad loans and portfolio increases imply that banks need higher risk reserves, which they then cannot invest in innovation, which in turn affects the progress of banks negatively. On the other side, the use of digital channels has increased tremendously, also by older generations, which are now more open to this solution due to social distancing. As a result, one of the main lessons learned from the Corona crisis is that many banking processes, starting with the account opening process and onboarding, can be done online. A digital signature can grant authorization without the need to do it in person. Corona is, in fact, a significant enabler and accelerator for digitization, the agile and adaptive transformation of banks. The pandemic has incentivized banks to reinvent themselves, not only internally but also in terms of the working culture and the way that customers interact with banks. In the future, the budgets for digital innovation will rise, since these channels are gaining importance through the Corona crisis.

Regulatory pressures are a bit lower during the Corona crisis, since the focus lies more on defaults rather than the supervision of banks. Nevertheless, there are new uncertainties in the market, and credit portfolios are under pressure, which is also affecting the earning possibilities of banks. Especially at the beginning of the Corona crisis, it was difficult for banks to grant a high number of loans until they managed to simplify the procedures more quickly and efficiently. Hence, the crisis affected banks for one or two months until the settlement of the credits. Furthermore, the resilience to a market crisis is lower for FinTechs, so they might have difficulties maintaining their lifeline. The lasting effects of the lockdown and the overall economic development is still unknown, but it will become more apparent in the next year when defaults are starting to rise, and banks need to form reserves. The outcome will also depend on how much is subsidized by the government.

Category 10: The Future of banking

Incumbents are currently trying to guide their clients in the direction of online banking. Banks will continue to support long-term business relationships and personal consulting services. In the future, that will probably become overgrown by artificial intelligence, since more and more data will be available to handle banking topics such as simple bank loans or transactions and later, even housing loans with special requirements. Older generations will likely stay with their traditional banks, while younger ones who grow up with online banking will prefer the latter. FinTechs are partly brought into banks or bought. For example, the FinTech “baningo” works closely with savings banks in Germany, which have implemented its systems. At some point, it might be the other way around, when FinTechs are taking over and buying out parts of banks. However, FinTechs will need to offer lending services in the future, since they cannot survive by only relying on recently acquired customers and selling data. The best possible future outcome for both market players would be a win-win partnership, whereby FinTechs are developing innovative features and additional services for clients, which banks can use to reduce their costs and enhance their offerings more digitally.

As can be seen from the perspectives of consultants, FinTechs, and banks, there are different levels of advancement of FinTech development in the countries of the CEE region. FinTechs mainly target the area of retail banking, which brings up the question of whether FinTechs and banks should cooperate or compete. The decision depends on the underlying proposition and goal of both market players. When deciding for cooperation, the incumbent and the FinTech can unite their strengths and mitigate their weaknesses. Therefore, it is vital that each party understands the specific characteristics of the other one and respects the way of work. The expert interviews also showed that regulation does not only enable market security and customer protection but also incentivized innovation by implementing PSD2. Besides, findings show that COVID-19 boosts digitalization and increases the use of online banking. In the future, some FinTechs might become real market players, while others may disappear. On the other hand, some banks might lose market share to competing FinTechs.

5 DISCUSSION

In the following section, the empirical results are interpreted based on the current state of research and the findings of the study derived from the expert interviews conducted to answer the research questions. The discussion starts with the presentation of the research questions, followed by a link to the theory of financial intermediation and then applied to the underlying subject. Next, the description of the FinTech types that aim for competition with traditional banks and the ones, which prefer collaboration, succeeds. Then the factors that lead to cooperation between both market players, the implications of collaboration, the factors that are important for a successful partnership, and finally, the impact of the Corona crisis on the financial industry conclude the discussion.

5.1 Research questions

There are two different types of FinTech companies: the ones challenging incumbent banks by offering substitute services, and the others aiming for collaboration by providing complementary services to customers (Skan, Dickerson, & Gagliardi, 2016, p. 5). The question is whether these players will unite and work on making financial services better or if they will choose rivalry over collaboration (Vasiljeva & Lukanova, 2016, p. 26).

According to a consultant interviewed for this study, the direction for which a FinTech decides mainly depends on the underlying value proposition and the FinTech type. Furthermore, the interviewee states that most FinTechs and banks prefer cooperation over competition. Given the fact that it is rather challenging to gain market share by disrupting the banking industry, "*Well I think there are two main directions with competition and cooperation, and it depends which proposition is the most fitting one, to choose either to compete against traditional banks or to cooperate with traditional banks. In my opinion, I would probably say that there is a tendency for more cooperation, since it proves to be quite challenging to really disrupt a whole incumbent industry, and it is more likely to succeed at least in the first steps by strongly cooperating with banks…But on the other hand, you also have FinTechs that clearly aim for war with traditional banks that are really focused on disrupting and challenging that, so it really depends on the type of FinTech"* (Consultancy A, Skype interview, May 4, 2020, lines 25-35, pp. 1-2).

The different FinTech types will be further described in this section to answer the following research questions:

- *Cooperation vs Competition: what is more beneficial to FinTech companies regarding different types of FinTech companies?*
- *What are the factors that lead traditional banks to cooperate with FinTech companies?*
- *What are the implications of collaboration between FinTech companies and traditional retail banks?*
- *Which factors lead to successful cooperation between FinTech companies and traditional retail banks?*
- *What impact does the Corona crisis have on the financial services industry?*

5.2 Link to the Theory of Financial Intermediation

According to Freixas and Rochet (2008), the main task of banks is to reduce market imperfections such as different preferences of lenders and borrowers, transaction costs, asymmetric information, and shocks in customer consumption. Furthermore, besides granting loans and accepting deposits, banks provide funding liquidity, transform assets and relieve the information problem between investors and borrowers (Freixas & Rochet, 2008, pp. 15-18).

Diamond and Dybvig (1986) suggest that banks grant long-term illiquid loans to borrowers by using short-term liquid deposits, which enables them to provide liquidity services for customers that are uncertain about their future consumption (Diamond & Dybvig, 1986, pp. 57-58). Specifically, the area of liquidity provision, for example, in the credit and payment services, is disrupted by FinTechs that are offering innovative technologies (Molnár, 2018, p. 39). Aaron et al. (2017) emphasize that incumbents could reduce the number of bank deposits and credits given the new market entrants. Nevertheless, this depends on the adoption rate of FinTech alternatives by customers and the response of banks (Aaron et al., 2017, p. 7).

Financial intermediaries provide liquidity and simultaneously transform the maturity and risk between assets and liabilities. Banks reduce the risk associated with asset transformation by collecting information on potential borrowers. The asset transformation function of banks also lowers transaction costs and leads to a more efficient allocation of funds. FinTechs have come up with peer-to-peer lending and marketplace lending models to channel savings from individuals and investors directly to borrowers to reduce intermediation costs (Molnár, 2018, p. 39).

Besides, banks process information and act as monitors for firms to make sure that they use their resources efficiently by screening borrowers at reduced costs due to economies of scale and scope. Therefore, diversification decreases the expense of delegated monitoring by a bank compared to individual lenders and mitigates asymmetric information simultaneously (Leyland & Pyle, 1977, pp. 382-384). Monitoring increases the trust in banks and enables long-term relationships with clients. Along with the technological developments in recent years, FinTechs have emerged in the area of information processing. FinTechs in this area often make use of Big Data and machine learning, which enables them to collect, present, and evaluate information in a faster and more effective way compared to traditional banks. This progress in digitalization also led to reduced search costs for credit information and a potential decrease in asymmetric information (Molnár, 2018, p. 40).

The question arises if FinTechs will replace traditional banks in their role of financial intermediation or if they will instead complement them. Therefore, this section analyzes the advantages of banks over other financial institutions. First, Rajan (1996) argues that banks have the benefit of synergies as they combine the two core banking activities of taking in deposits and granting loans. Second, economies of scale and scope arise when performing these activities by the same bank (Rajan, 1996, pp. 114-120). For example, incumbents can reduce the risk by pooling a large number of funds, which is especially crucial in market segments with illiquid assets or long-term maturities. Third, scale economies also apply to information monitoring (Molnár, 2018, pp. 40-41). Leland and Pyle (1977) suggest that banks are information sharing coalitions, and Diamond (1984) adds that financial intermediaries can diversify their portfolio by monitoring. As a result, the number of credits increases, and the financial intermediaries of larger sizes generate economies of scale throughout this process (Leyland & Pyle, 1977, pp. 382-384; Diamond, 1984, pp. 394-395).

Given the acceleration of digital trends, other market players than banks started to offer services for the financial sector. The internet reduced transaction costs and, therefore, the barriers for market entry by reducing the information asymmetries and creating opportunities for new intermediaries and business models. Consequently, FinTechs that produce standardized products with low risk emerged and disintermediated some of the traditional banking functions and activities. Especially neo-banks gained market share in the financial services sector by providing deposit services at lower costs than traditional banks. Challenger banks adopted an internet-only strategy with little or no branch system and have relied mainly on the internet and mobile usage of their customers until now. Although challenger banks offer traditional retail bank products such as current account, savings account, payment services, and sometimes credit products, they differ from incumbents on the operations side. Neo-banks that have no banking license provide their financial products in cooperation with licensed financial institutions, which provide back office, core banking, compliance, transaction processing, fraud and risk management, and their white-label product. In general, challenger banks provide services, receive fee income from clients, and then pay a subscription fee for the partner banks. Usually, neo-banks have a limited product scope with two models. The first one is a deposit and payment model whereby a partner bank holds deposits. The second model offers deposit, payment, and the challenger bank itself can issue credit products, which are managed by the partner institution or the credit product. Some neo-banks have moved from an indirect intermediation model to a direct intermediation model through a banking license. The main innovation of neo-banks is the reduction of risk and lower regulatory requirements, since they do not offer credit directly to customers. Given the lower operating costs, neo-banks can pass rent benefits to customers, which allows them to provide lower prices (Molnár, 2018, pp. 43-44).

“N26” is one of the first challenger banks launched in Europe, with a typical neo-bank business model that offers a current account, payment, and investment management. In the beginning, “N26” offered its deposit product in a partnership with “Wirecard Bank”, which had a full banking license, before it collapsed in June 2020 (Forbes, 2020). Hence, “N26” accounts were held by “Wirecard Bank”, which was responsible for legal and regulatory requirements. Besides, “N26” collaborates with “TransferWise”, a peer-to-peer payment provider that allows transferring money overseas. The neo-bank also partnered with “Vaamo”, an online investment and Robo-advisory firm from Germany. Since July 2016, “N26” has a banking license in Germany, which changed its indirect business model to a direct one (Molnár, 2018, pp. 43-44).

When comparing the volume and market share of neo-banks to one of the traditional banks, it is still smaller, and they offer only services such as current and savings accounts. On the one hand, given the neo-banks’ customer-oriented approach and their originality, they have an advantage, especially with attracting millennials. Moreover, challenger banks act as intermediaries by providing liquidity and monitoring functions between the bank and the borrowers. However, challenger banks can only improve intermediation efficiency if they have a good reputation or better expertise in developing user-friendly solutions than traditional banks. Their value proposition lies in operating with innovation agility, having a better understanding of the newest technologies, focusing on client needs, and therefore reacting to changing customer demands better than incumbents can. The use of the internet can reduce transaction costs significantly, which in turn leads to growing markets and an extended division of labor (Molnár, 2018, pp. 43-44). Niehans (1983) argues in the paper on transaction cost innovation theory that financial innovation derived from advancements in technology leads to a decline in transaction costs (Niehans, 1983, as cited in Molnár, 2018, p.44).

On the other hand, traditional banks also aim to reduce their transaction costs by offering online and mobile banking services, so the transaction cost argument does not justify the existence of challenger banks. Furthermore, just a few neo-banks provide lending services and monitor borrowers more efficiently than banks, and the delegated monitoring argument only holds for these challenger banks. Besides, neo-banks usually only provide deposit products and cannot compete with traditional banks in areas such as liquidity provision and asset transformation. Another important aspect is that the business model of neo-banks requires to be watched by regulatory bodies, since they often have no capital, and other institutions insure customer deposits, so they take on more risk than traditional banks. To sum up, neo-banks complete the role of banks by reducing transaction costs, which justifies their long-term existence when maintaining this advantage. However, given the challenger banks' superior value proposition compared to incumbents', it can be argued that they can provide better and more customer-centric solutions for the exact needs of their clients. In the context of the theory of financial intermediation, FinTechs might complement the incumbents' services by providing technology-driven banking services to some extent, but they also challenge traditional banks by offering more innovative products (Molnár, 2018, pp. 43-44).

5.3 FinTech Type 1: Direct competitor

When adopting the theory of financial intermediation in the case of FinTechs, it becomes clear that neo-banks directly challenge the traditional retail banking sector, since they can offer cheaper and better financial services. Besides, FinTechs can quickly scale up their processes and generate profits with lower margins, given their flexible structure. What is more, banks are subject to capital requirements, while FinTechs are not, so that the latter can conduct bank activities at lower costs. Consequently, the regulation that should protect the banking system helped FinTech firms at the expense of banks. Nevertheless, large universal banks could imitate most FinTech innovations and would have an advantage over FinTech firms, since they already have a solid customer base. When trying to replicate FinTech innovations, banks often encounter obstacles, since their IT systems have been built through decades, making it impossible to integrate new solutions. Furthermore, large banks often deal with agency problems or internal conflicts of interest, which reduces efficiency and innovation (Stulz, 2019, p. 87).

The head of the Business Development of N26 for Austria, Germany, and Switzerland supports the arguments above and emphasizes in an expert interview conducted for this thesis that challenger banks can be considered competitors to traditional retail banks, *"If you are a neo-bank, like us, and if you're really building your own bank, then you are a direct competitor of traditional banks. And then there is not much collaboration or no collaboration going on at the end"* (Challenger bank D, Skype interview, May 12, 2020, line 1384-1386, p. 40). Furthermore, the interviewee states, *"So, we're definitely posing a threat to all the retail banks out there, all the traditional retail banks out there, because we're just more scalable in our processes and we can also be profitable with way lower margins because we just don't have our legacy IT systems. We don't have physical branches"* (Challenger bank, Skype interview, May 12, 2020, lines 1341-1344, p. 39).

5.4 FinTech Type 2: Collaboration partner

Most incumbent banks have recognized the potential of FinTechs, and that collaboration can offer the opportunity to differentiate through innovative tools, platforms, and capabilities. FinTech companies are relatively free from regulatory, technological, organizational, or cultural restrictions, while incumbents often have industry expertise and capital but cultural and organisational constraints (Deloitte, 2018, pp. 2-5). Therefore, the current trend is growing toward cooperation between FinTech firms and traditional banks (Skan et al., 2016, p. 5).

FinTech companies that are looking for collaboration with banks have a lot to gain from working together. For instance, FinTech firms can profit from the long history and experience of banking operations that banks provide. Furthermore, banks hold the financial instruments and infrastructure that FinTech companies need. A partnership between FinTech firms and traditional banks also implies the exchange of knowledge and the acquisition of technology. Additionally, cooperation can help banks and FinTechs expand their services internationally, minimize development costs, and optimize processes (Nienaber, 2016, pp. 20-21). Ideally, after committing to collaboration, each partner can benefit from each other, while weaknesses are set off (Deloitte, 2018, p. 5).

The head of Business Development for Austria, Germany, and Switzerland of the neo-bank N26 agrees that collaboration with traditional banks can help FinTech firms attract customers faster and in a more cost-efficient way, *"It must make sense for you, that it like speeds up your basically your scaling. Because if you have to buy all the customers yourself, it's expensive, you need enough funding. So, collaborating with a traditional bank can definitely help you to be* *faster and to really get access to a huge customer base, sometimes very early on"* (Challenger bank, Skype interview, May 12, 2020, lines 1394-1396, p. 40). Besides, the respondent talks about collaborations between N26 and FinTechs and the reasons that make a partnership useful, *"We also do collaborate with FinTechs because often, FinTechs are specialized in certain niches and will just be better than us if we do it ourselves. And so, like really like basically, we're putting their services in our products seamlessly. That is super easy for the user to use it, and it can make a lot of sense"* (Challenger bank, Skype interview, May 12, 2020, lines 1400-1403, p. 40).

5.5 Implications of Collaboration

Many traditional financial institutions have difficulties with the agile and dynamic organizational culture of FinTech companies (Deloitte, 2018, p. 4). According to the World FinTech Report 2020, banks have a rigid infrastructure, and their complex processes hinder the fast-paced work style of FinTech companies, which harms collaborative results. Only 21 per cent of banks own a banking system that is agile enough to collaborate. Incumbent banks lack a dedicated innovation team, since only 19 per cent have one. Furthermore, seven out of ten FinTech firms do not see themselves culturally equal with their collaborative bank partner (Capgemini, 2020, p. 20). The head of Business Development of N26 interviewed for this thesis, explains how slow and complicated the rigid infrastructure of traditional retail banks is, *"Even if they want to innovate and want to do new digital products, their IT systems often hinder them and it's super or like extremely costly to change the systems. That's why they don't do it or try to build like another system on their legacy system, which makes it just way slower and more complicated"* (Challenger bank, Skype interview, May 12, 2020, lines 1368-1371, p. 39).

Moreover, the interviewee explains that banks have difficulties with being agile and innovative, given their banking infrastructure, *"And then, of course, you have all the cultural issues that the banks were not really used to be, or they didn't really have to be super innovative, and so on. And now a lot of players, a lot of FinTechs out there, are super innovative and super fast in their respective fields. And that's, of course, very difficult for banks with their more like traditional cultural setting to keep up with them"* (Challenger bank, Skype interview, May 12, 2020, lines 1371-1374, p. 39).

Other obstacles of collaborations between FinTech companies and incumbents are a lack of coordination, internal awareness, and communication. For example, banks are often making decisions independently, within each business unit or department and develop their solutions in-house (Deloitte, 2018, p. 7). More than 70 per cent of FinTechs are struggling with the process barriers of banks when collaborating with them. While FinTech firms prefer flat organizational structures, banks tend to have hierarchical organizations, which makes direct conversation harder to accomplish (Capgemini, 2020, p. 20). According to an expert in Business Development at RBI, the main challenges of collaboration are communication, the compatibility of the bank's and FinTech's systems, and process barriers, *"I think it's the first challenge that you speak simply two different languages. The second challenge is the systems and the systems which the bank uses are not compatible with whatever the FinTech is using... Another one is the processes, which also includes this kind of procurement process I mentioned before that you go into the bureaucratic world of the bank"* (Bank B, Microsoft Teams interview, May 15, 2020, lines 2087-2093, p. 60).

Furthermore, half of the FinTech firms are not equipped with enough funds to finance their operations. The lack of funding counts especially for FinTechs in the early stage and makes operational expansion and the commercialization of products a challenge (Capgemini, 2020, p. 20). The managing director of an Austrian FinTech Accelerator program points out the lacking network and indirectly that only a few FinTechs have enough funding to gain profitable market share, which explains why there is more collaboration than competition between FinTechs and traditional banks, *"I mean, FinTechs usually lack the network that large incumbents have. They are not as trusted as incumbents, usually. They do struggle sometimes to bring their product on a large scale to the market. This mostly brings the necessity of spending a lot of money, which only a few of the companies can afford as they have large funding. So that's why a lot of FinTechs actually switched from fighting banks to cooperating with banks"* (FinTech Accelerator B, Microsoft Teams interview, June 2, 2020, lines 1662-1665, p. 48).

The World FinTech Report 2020 found that six out of ten FinTechs perceive a lack of commitment for customer experience (CX) of their collaboration partner. Consequently, the disinterest of bank executives leads to commitment issues and failing collaboration (Capgemini, 2020, p. 20). The managing director of George Labs emphasizes the missing capabilities of traditional banks to deliver customer-focused digital experiences, *"Very often, skills in the field of digital experience are missing… What large banks are doing is that they tend to do business as usual. They are built around the idea of maintaining a service instead of moving forward"* (FinTech B, Microsoft Teams interview, May 19, 2020, lines 860-865, p. 25).

When FinTech firms do not have a full understanding of a bank and its business problems, the project will likely fail. More than half of FinTech executives state that they have not found the right partner to collaborate with (Capgemini, 2020, p. 20). According to a consultant interviewed for this thesis, the mutual understanding and respect between the collaboration partners are essential for a successful collaboration. Ideally, the advantages of both market players can be combined and used to produce client-centric solutions, *"So, I think to really make this cooperation successful, both parties have to understand the specific characteristics of the other party, as well as have to respect the way of work regarding the other party. And ideally, you can kind of organizationally create a setup where this FinTech endeavour is kind of structurally separated from the core business. So, then you could combine the advantages meaning knowledge, client access, capital, the experience of the traditional incumbent player with the agility and the recklessness of a FinTech in a separate entity and could bring both strengths together"* (Consultancy A, Skype interview, May 4, 2020, lines 138-143, pp. 4-5).

5.6 Strategy for a successful partnership

FinTech and bank collaboration is a powerful strategy to fill the incumbent banks' gaps across their business value chain with the help of the innovative technical expertise and specialized tools of Fintech firms. Collaboration requires the identification and prioritization of customer journeys for reinvention to be successful (Capgemini, 2020, p. 7). While banks have invested heavily in IT in the last years to improve front-office operations, middle-office and back-office operations are lagging. However, with the growing importance of improving customer experience, banks must optimize their end-to-end value chain and digitize their internal processes (Capgemini, 2020, pp. 12-13). An expert in the department of Digitalization and IT at Raiffeisenlandesbank Oberösterreich stated that the efficient allocation of the bank's resources is vital and that it is simply not possible to invest too much in innovative solutions, "*So, on the one hand, we have to allocate the resources somehow intelligently where we see we can make a difference... Because if we invested in all facets of a nice digital front end and a cool offline branch experience, this would be too expensive. So, we have to intelligently allocate our resources more than in the past because also the margins they put pressures on the number of resources you can allocate"* (Bank E, June 5, 2020, lines 2612-2617, p. 75).

Furthermore, the head of Paysafecash agrees that banks often have a hard time creating a digital user experience due to their structure and therefore tend to outsource it to FinTechs, *"So, innovation in terms of customer-focused innovation is much harder for traditional banks. And* *that's why they tend to outsource that. And that's a good play to say, 'Hey, our structure does not allow for us to do the same as N26 does.' So, we just create our own style, which we finance, but we leave it to operate on the side"* (FinTech C, Zoom interview, June 26, 2020, lines 1178-1181, p. 34).

According to the head of controlling foreign investments of Steiermärkische, the most crucial success factors for collaboration are the trustworthiness and the market orientation of a FinTech, which should help enhance the services and processes of the bank, *"The factors are the reliability and the market orientation of the FinTechs... The market orientation for the FinTechs, it should help for further improvement of the processes in the banks... In fact, everything has the goal that it should have more benefit for the bank and the clients"* (Bank A, Skype interview, May 14, 2020, lines 1795-1798, p. 52).

Other important factors for successful cooperation are the precise definition of tasks and responsibilities, as stated by the managing director of George Labs, *"Clear separation of the mission. What I mean is, it has to be clear, how do I contribute and where I contribute? So, if you have unclarity there and the FinTech could potentially steal business from the bank or the other way around, or it's not clear what's the relationship, I think then things become very, very blurry and put everything at risk"* (FinTech B, Microsoft Teams interview, May 19, 2020, lines 982-985, p. 28).

According to an expert in Business Development at RBI, it is vital for FinTechs to have funding, that they work with professionalism and deliver innovative solutions on time, *"So, they need to have funding, they need to have professional people, they need to have a good, innovative solution. This needs to happen because otherwise, if one fails, everything fails from the FinTech side. And they need to deliver"* (Bank B, Microsoft Teams interview, May 15, 2020, lines 2063-2065, p. 59). Furthermore, he adds that the employees in incumbent banks need to be open for new ideas and willing to change banking for the better, *"And on the bank side, you need to have the right people on board. The larger the organization, the fewer people feel responsible for anything... You face a lot of scepticism and resistance to change"* (Bank B, Microsoft Teams interview, May 15, 2020, lines 2066-2069, p. 60).

Besides, the Co-founder of baningo explains that both market players must meet each other with respect and be ready to work in a culturally different environment. Furthermore, the interviewee suggests to work step by step and start with a proof of concept. Then banks are less pressured in terms of making investments in the FinTech, *"I think if they meet each other on* *eye-level, there is the cultural ability in the bank, the willingness and the cultural ability to work together with start-ups and FinTechs, that's a thing, which has to be in the organizational culture fully integrated… I think if you offer them the chance to have a short time-to-market, to start perhaps with kind of MVP or any proof of concept approach so that they don't have the feeling that they have to invest a lot of money for not knowing what they get and if it works. So, if you peu à peu and start easily and then have step two and step three, then I think the chance to get to a contract is much higher"* (FinTech A, telephone call, May 14, 2020, lines 721-726, p. 21).

Finally, one consultant interviewed for this study explains that the deal must make sense for both parties. It should generate a standardized solution that is easy to integrate into the bank structure, "*Yeah, the truly superior benefit of the solution that is being offered, the ease of integration, the degree of standardization of this solution. So, if it is a solution where you have to individualize it for every single bank where you want to offer it, then, of course, it's kind of very difficult and complex"* (Consultancy C, Zoom interview, May 28, 2020, lines 520-522, p. 15).

5.7 Impact of the Corona Crisis on the Finance Sector

While the global financial crisis of 2008 was the result of loose monetary policy that created a bubble, followed by subprime mortgages, weak regulatory structures, and high leverage in the banking sector, the coronavirus was different from past events that triggered recession (Ozili & Arun, 2020, p. 3). In December 2019, a pneumonia outbreak took place in the province of Hubei in China, which spread worldwide at rapid paste. Consequently, the Chinese government took immediate action and reached initial achievements with its measures. However, by 11 March 2020, the pandemic had already caused 3162 deaths in China and 1130 deaths in 113 other countries around the globe. Research on SARS-CoV-2 has shown partial resemblance to the virus with the previous SARS-CoV and MERS-CoV. This realization provides valuable insight into understanding COVID-19 better and taking appropriate measures for the current situation (Xie & Chen, 2020, p. 119).

The COVID-19 coronavirus crisis is currently putting pressure on the global economy and affects markets, governments, businesses, and individuals. While the financial crisis of 2008 was spilling over into the real economy, the COVID-19 crisis is a health and geopolitical crisis that simultaneously has an impact on financial markets and the real economy. More precisely, the situation appears to be the result of the coronavirus pandemic, which started in late 2019, and oil price shocks that began at the turn of 2020. While the most apparent impact of the coronavirus is human, the consequences of quarantine measures and lockdowns can be felt locally and globally through reduced operations of factories and logistic networks, less demand for services such as travel and hospitality, and increasing uncertainty, which is reducing trust between economic actors. The short-term result of this pandemic is the limitation of interaction in the form of social distancing and decreasing trade. Compared to the financial crisis in 2008, this crisis did not originate in the financial sector. However, trust and certainty are challenged at the presence and weaken the financial markets (Arner, Barberis, Walker, Buckley, Zetzsche, & Dahdal, 2020, pp. 1-6).

The spillover to the financial sector during this pandemic can be seen by the decline in the volume of banking transactions, in card payments and a drop in the use of ATM cash machines worldwide. As a result, banks collected fewer fees, and the profit of banks decreased accordingly. On the one hand, FinTech businesses suffered from the effects of the coronavirus. For instance, many customers switched to more secure investments, which negatively affected venture capitalists that finance FinTech companies. On the other hand, the lockdowns triggered by the coronavirus outbreak resulted in higher demand for certain online services (Ozili & Arun, 2020, pp. 9-10).

Intervention to avert a downward spiral of the global economy should be targeted on the following four levels, as proposed by Arner et al. (2020). According to research on digital finance and crisis, the first level of intervention focuses on the infrastructure of the financial system, especially on the payment systems and securities markets. The digital financial system provides a solid basis for the financial sector to perform its core functions such as liquidity management and financial resource allocation, which are essential to generate economic activity and sustainable development. Furthermore, it is necessary to monitor the core infrastructure and ensure resilience, since a failure in times of crisis can have severe consequences. Besides, cybersecurity is a significant source of operational risk, and with the increased use of home networks since the pandemic, it is vital to take measures to prevent potential digital attacks (Arner et al., 2020, pp. 6-7).

The second level identifies where solvency problems in the real economy and the financial sector are likely to emerge. Therefore, liquidity providers such as the central bank must carefully control electronic systems. When a crisis takes overhand, expansive credit lines from central banks and assistance from international organizations are vital, which is especially the case when consumers seek to retain much cash and trigger a bank crisis on top of the economic crisis. Where the choice of goods is limited, the over-liquidity will result in higher prices for the fewer products that are available on the market. Digitally created financial goods or new digital services could partially replace some of the real products and take up the excess liquidity of consumers (Arner et al., 2020, p. 7).

The third level aims for a closer real-time reporting of financial data for listed and private companies. Given the fast change in economic conditions throughout the Corona crisis, RegTech and Supervisory Technology (SupTech) systems are essential tools for the collection and analysis of data. Finally, the fourth level of intervention focuses on leveraging existing FinTech solutions. The trend of delivery services and communication technology in the form of online learning, tutoring, and marketing will likely continue (Arner et al., 2020, pp. 8-9).

Given the present situation, individuals, SMEs, larger firms, and public institutions feel the economic impact in the form of a temporary loss of income or business. The effect of the crisis on governments and the financial sector is still limited but will increase the longer the pandemic endures. Digital finance offers tools that directly target financial resources using algorithms that prioritize factors such as age, health, social commitment, and professional qualifications, to consumers that need it the most. Besides, governments, NGOs, and international organizations should work with payment, financial, and telecommunication providers to speed up the delivery of resources. Furthermore, cash injections would be an approach to maintain the organization of businesses, avoid increasing unemployment and the loss of infrastructure. Another way to support the local economy states could motivate individuals to invest their excess capital using token-based or crowdfunding schemes (Arner et al., 2020, pp. 10-14).

Besides the economic aspects mentioned above, digital finance also provides tools for monitoring potential crises. For instance, it forwards financial resources to individuals and health care providers. Beyond this, medical services and advice can be made available via communication infrastructures such as the internet or mobile devices. Moreover, e-tokens to distribute scarce goods to those with the greatest needs are used, which would also substitute recipes that are transmitted by postal delivery and avoid human contact between the delivery person and the recipient. During the pandemic, governments could use digital identity to gain a better understanding of the financial and personal health of individuals. People could be assigned a personalized token that carries critical data about the current health status. When the situation recovers, it is essential to dedicate the focus from health to the economy again (Arner et al., 2020, pp. 15-16).

Furthermore, governments need to use the already existing digital infrastructure in the best possible way and engage FinTech experts to explore what measures to take in every country. Besides, digital payment systems enable speed and traceability for individuals and businesses. Overall, governments should also aim to enhance trust in these uncertain times (Arner et al., 2020, p. 22).

In conclusion, the Corona crisis impacts the financial services industry on different levels. A consultant questioned for this thesis speaks about the social and economic effects of COVID-19 and confirms that it is an accelerator for digitalization, *"On the one hand, you have people staying at home. I guess that is definitely a boost for everything that's digital... So, if you have never used online banking and you have to do it now for the first time, and you can actually switch to it, you will be likely to do that in the future as well"* (Consultancy B, Microsoft Teams, May 5, 2020, lines 325-331, p. 10). Then the consultant talks about the other economic implications of COVID-19, *"Then you have the big other points of the implications, basically regarding an economic crisis. So, people may be losing their jobs, going into furlough, and having less money because they just get compensated part of their wages and stuff like that. So that would lead to defaults on loans, and it could lead to lower investments"* (Consultancy B, Microsoft Teams, May 5, 2020, lines 331-334, p. 10)

The discussion has shown that there are two types of FinTech companies that either strive for collaboration or competition with traditional banks, whereby the decision for which direction to go for depends on the underlying value proposition and the type of FinTech. While neo-banks directly challenge incumbents, other FinTechs follow a collaborative approach and partner with traditional banks. When deciding for collaboration, many challenges can occur, given the different corporate cultures, ways of working, communication, and coordination of both market players. Therefore, the collaboration partners must make sure to understand and respect each others' differences, define precise targets, and deliver solutions on time. Even though COVID-19 has social and economic effects on various levels, there is no direct correlation between the number of cooperations between FinTechs and incumbents.

6 LIMITATIONS AND FURTHER RESEARCH

Given the scope of the thesis, 14 experts gave insights into the financial services industry with an attempt to achieve the highest possible degree of objectivity. While bank employees and consultants had mostly similar opinions about FinTech and bank collaboration, some of the interview partners from FinTechs had different approaches regarding cooperation and competition, especially the neo-bank included in the selection of FinTechs. Therefore, the number of differentiated views would likely increase when conducting more interviews. Since the author interviewed only one challenger bank, it might not be representative of all neo-banks in Central and Eastern Europe. Further research could investigate the impact of the Corona crisis more in-depth, which is still uncertain, and it should examine whether this influence would lead to different results. Moreover, this study focuses on the CEE region and is extendable to a more global perspective. The limitations mentioned offer opportunities for more profound research, for example, by using quantitative methods in further investigations and connecting it to the qualitative research method used in this study.

7 CONCLUSION

This work aims to elaborate on whether cooperation or competition between traditional retail banks and FinTechs in Central and Eastern Europe is more beneficial for each party. Interviews were conducted with three consultants, experts from six FinTechs, and five traditional banks to critically examine the different perspectives on the underlying subject in comparison to the existing literature. The thematic analysis with these three expert groups makes it possible to gain an understanding of the FinTech industry in the CEE region, to identify the most disrupted market segments and the success factors for the daily business. Moreover, it helps to point out the strengths and weaknesses of traditional banks and FinTechs, the arguments for collaboration and competition, the success factors for a partnership, the regulatory aspects, the Corona crisis, and provides an outlook for the future of banking.

According to the experts interviewed for this study, there is a significant gap in the advancement of FinTechs between Western European countries and the CEE region. The reasons for this are the lack of funding initiatives in Eastern Europe and complicated laws that hinder the development of FinTechs. The client segments that are most disrupted by FinTechs are payments and retail banking. Challenger banks are offering standardized mass products and enable a superior user experience for clients. Since their solutions are not dependent on complex legacy systems, they can offer their solutions either at low costs or for free. Nevertheless, wealthier and pensioners usually prefer traditional banks over FinTechs, since incumbents provide them with security, and they are in direct contact with clients and have earned their trust throughout long-lasting customer relationships.

On the other hand, banks have complex structures and legacy systems that slow down processes and hinders innovative approaches. The main differences between traditional banks and FinTechs are the employees, the legacy IT systems, processes, and the corporate culture of both market players. For example, bank clerks usually have much experience, which makes it easier for them to handle crises and still provide liquidity for customers, while FinTechs tend to have younger employees. When it comes to shifting market conditions and customer demands, FinTechs are faster in responding to them than incumbents. One reason for this is that banking systems are often old and complex, which makes it hard and costly to make changes. Since banks carry more regulatory obligations than FinTechs, they have to undergo audits, which makes these processes safe but bureaucratic. FinTechs usually have up to 100 employees, and their systems are easily adaptable to changing market conditions. Besides, FinTechs are less regulated than incumbents, which gives them an advantage when they want to expand. Their most significant disadvantage is that they need to acquire new customers and build up everything from scratch. Moreover, FinTechs must break even with their number of customers when providing an account for free.

The insights gained from the reviewed literature on traditional banks, FinTechs, and the theory of financial intermediation, combined with the 14 expert interviews held in the course of this study, leads to the conclusion that it depends on the underlying value proposition, the goal, and whether it is a B2B or a B2C FinTech if a FinTech should collaborate or compete with an incumbent. While B2C FinTechs, such as challenger banks, attract the same clients with similar solutions and therefore directly compete with traditional banks, it makes sense for B2B FinTechs to collaborate when the solution adds value to the original offer of the bank or provides supplementary services that banks can utilize to serve their customers better. According to the theory of financial intermediation, banks have a vital function in reducing market imperfections such as the different preferences of lenders and borrowers, transaction costs, asymmetric information, and shocks in customer consumption. Besides granting loans and accepting deposits, banks provide funding liquidity, transform assets, and decrease information asymmetries between investors and borrowers (Freixas & Rochet, 2008, pp. 15-18). Banks screen their borrowers at low costs, given the economies of scale and scope through delegated monitoring, which increases trust and generates long-term customer relationships (Leyland & Pyle, 1977, pp. 382-383). On the other side, neo-banks have an advantage in attracting Millennials with their innovative and customer-oriented approach, whereby they challenge traditional banks with their superior value proposition. However, other FinTech firms aim for collaboration, enhance, and complement the product offering of an incumbent with the use of the internet and digital solutions, which reduces the transaction costs (Molnár, 2018, pp. 43-44).

When deciding for cooperation, FinTechs and traditional banks can combine their strengths, mitigate their weaknesses, and deliver more efficient and customer-centric solutions. Collaboration can lead to benefits for both partners in terms of customer acquisition, economies of scale, innovation, and customer-centricity. While FinTechs can offer their know-how, new systems, disruptive ideas, and contribute to digital and agile solutions, incumbents can provide their banking license, infrastructure, capital, expertise, customer base, and data. Besides, collaboration can help to reduce time-to-market and cost-to-market. For banks, it is often more cost-efficient to partner with a FinTech than to produce a solution in-house, which enables them to focus on the core activities. On the other side, FinTechs can collaborate with several incumbents and thereby cost scale their solution.

Nevertheless, challenges such as different corporate cultures and ways of working may occur, which can be tackled with clear communication and comparing defined to actual targets. Another big hurdle is the procurement process and the compatibility of the FinTech's systems and the rigid bank's infrastructure and legacy IT systems. Therefore, the collaboration partners should check the requirements in advance. Other important factors for successful cooperation are the mutual understanding of each collaboration partner and respecting the different working and corporate cultures. This study shows that various elements are essential when deciding for a collaboration, but the right strategy and tools can tackle the obstacles.

Legislation in the CEE region protects established banks, FinTechs, and customers. The introduction of PSD2, which makes the APIs of banks accessible to FinTechs, is a boost for innovation in the financial sector and incentivizes partnership between banks and FinTechs. Regulatory pressures decreased during the Corona crisis, since the focus was more on defaults rather than the supervision of financial institutions. Corona affected banks in the first two months until the loans were settled by the customers, while the resilience to the crisis is lower for FinTechs. However, economic development is still uncertain, and the outcome will also depend on the number of subsidies by the government.

Furthermore, research has shown that the Coronavirus has accelerated the trend of digitalization, which incentivizes banks to catch up with innovative FinTech firms. According to the experts interviewed, COVID-19 does not have a significant impact on the number of partnerships. Still, some FinTechs might help incumbents to get back on track after the Corona crisis, while others will struggle to maintain their lifeline.

While banks will continue with their personal consulting services, that might become overgrown by AI in the future, given that more data will be available to handle banking topics. Nevertheless, the trust will be the differentiator in the future, and financial institutions must enable personal interaction through empathic relationships to establish a superior user experience with client focus. The best possible outcome would be to have more win-win partnerships between FinTechs and traditional banks, generating more efficient business models and cheaper cost structures.

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ABSTRACT

This thesis investigates the FinTech industry in Central and Eastern Europe and analyses its relationship with traditional retail banks. The work gives an overview of the banking sector and describes the theory of financial intermediation by discussing transaction costs, economies of scale and scope, and liquidity insurance. I examine the various aspects of the FinTech industry, such as FinTech segments and business models, and explain the changing financial services industry, including the financial crisis of 2008, regulation, and the shifting customer demand. Expert interviews with consultants, FinTechs, and banks demonstrate different views on FinTech and bank collaboration. The result of the study is that FinTech and bank collaboration can generate various benefits in terms of customer acquisition, economies of scale, innovation, and customer experience for both partners. However, it depends on the specific value proposition and type of FinTech, whether to decide for collaboration or competition with an incumbent. Many factors are vital for a successful partnership, and the collaboration partners must tackle obstacles such as different corporate cultures, legacy IT systems, and the complex banking infrastructure. Thus, the number of collaborations in the CEE region is somewhat limited. The study also examines the impact of the Corona crisis on the financial services industry and shows that COVID-19 boosted technological advancement and the demand for digital solutions. According to the literature and the experts interviewed, there is currently a tendency for collaboration, which will further increase in the future.

Keywords: FinTech, banking, the theory of financial intermediation, collaboration

KURZFASSUNG

Diese Arbeit untersucht die FinTech-Branche in Mittel- und Osteuropa und analysiert ihre Beziehung zu traditionellen Retailbanken. Die Arbeit gibt einen Überblick über den Bankensektor und beschreibt die Theorie der Finanzintermediation, indem Transaktionskosten, Skalenvorteile sowie die Liquiditätssicherung erörtert werden. Ich untersuche die verschiedenen Aspekte der FinTech-Branche, wie FinTech-Segmente und Geschäftsmodelle, und erkläre den Wandel der Finanzdienstleistungsbranche, einschließlich der Finanzkrise von 2008, der Regulierung und der sich verändernden Kundennachfrage. Experteninterviews mit Beratern, FinTechs und Banken zeigen unterschiedliche Sichtweisen auf die Zusammenarbeit von FinTech und Banken. Das Ergebnis der Studie ist, dass die Zusammenarbeit zwischen FinTech und Banken für beide Partner verschiedene Vorteile in Bezug auf Kundenakquisition, Skaleneffekte, Innovation und Kundenerlebnis bringen kann. Es hängt jedoch vom spezifischen Wertversprechen und der Art des FinTech ab, ob man sich für eine Zusammenarbeit oder den Wettbewerb mit einem etablierten Unternehmen entscheidet. Viele Faktoren sind für eine erfolgreiche Partnerschaft entscheidend, und die Kooperationspartner müssen Hindernisse wie unterschiedliche Unternehmenskulturen, alte IT-Systeme und die komplexe Bankeninfrastruktur überwinden. Daher ist die Zahl der Kooperationen in der CEE-Region eher begrenzt. Die Studie untersucht auch die Auswirkungen der Corona-Krise auf die Finanzdienstleistungsbranche und zeigt, dass COVID-19 den technologischen Fortschritt und die Nachfrage nach digitalen Lösungen gefördert hat. Laut der Literatur und den befragten Experten gibt es derzeit eine Tendenz zur Zusammenarbeit, die in Zukunft weiter zunehmen wird.

Schlagwörter: FinTech, Bankwesen, Theorie der Finanzintermediation, Zusammenarbeit

APPENDIX A: DECLARATION OF CONSENT

Master thesis: FinTech and Bank Collaboration – A Central European Perspective

Implementing institution: University of Vienna

Interviewer: Diana Kronegger, BSc

Interview date:

Thank you very much for participating in an expert interview for the Master thesis with the title "FinTech and Bank Collaboration - A Central European Perspective" at the University of Vienna.

According to the Data Protection Act (Section 7(2)(2) GDPR), your consent must be obtained for such an interview. The statements will be used in the Master thesis, mentioning your name, unless you wish to remain anonymous.

The contents of the interview are transcribed. The transcript of the interview will be attached to the Master thesis. According to university law, theses must be published (by posting them in the National and University Library), they are usually also accessible online.

Personal contact data is stored separately from interview data and inaccessible to third parties. After completion of the master thesis, your contact data will be deleted automatically.

You can revoke your consent to use this interview at any time, but all statements that have been used in the thesis up to this point in time are legally compliant and do not have to be removed from the work.

If you have any questions, please contact the person responsible for the Master thesis: Diana Kronegger (a01253523@unet.univie.ac.at), a student of International Business Administration at the University of Vienna, postal address Stumperggasse 44, 1060 Vienna.

For legal questions in connection with the GDPR and student research, please contact the data protection officer of the University of Vienna, Dr Daniel Stanonik, LL.M. (verarbeitungsverzeichnis@univie.ac.at). You also have the right to appeal to the data protection authority (dsb@dsb.gv.at).

Place, date, name

ZUSTIMMUNGSERKLÄRUNG

Masterarbeit: FinTech and Bank Collaboration – A Central European Perspective

Durchführende Institution: Universität Wien

Interviewerin: BSc, Diana Kronegger

Interviewdatum: 14.5.2020

Herzlichen Dank, dass Sie sich bereit erklärt haben, als Expert/in für ein Gespräch für die Abfassung meiner Masterarbeit mit dem Titel „FinTech and Bank Collaboration – A Central European Perspective" an der Universität Wien zur Verfügung zu stehen.

Gemäß Datenschutzgesetz (§ 7 Abs 2 Ziffer 2 DSG) muss für ein derartiges Interview Ihre Zustimmung eingeholt werden. Die Aussagen werden unter Nennung Ihres Namens in der Masterarbeit verwendet, außer Sie wünschen eine Anonymisierung.

Die Inhalte des Interviews werden transkribiert. Das Transkript des Interviews wird der Masterarbeit im Anhang beigefügt. Abschlussarbeiten müssen laut Universitätsgesetz veröffentlicht werden (durch Aufstellen in der National- und Universitätsbibliothek), sie sind üblicherweise auch online zugänglich.

Personenbezogene Kontaktdaten werden von Interviewdaten getrennt für Dritte unzugänglich gespeichert. Nach Beendigung der Masterarbeit werden Ihre Kontaktdaten automatisch gelöscht.

Sie können die Zustimmung zur Verwendung dieses Interviews jederzeit widerrufen, alle Aussagen, die bis zu diesem Zeitpunkt in der wissenschaftlichen Arbeit verwendet wurden, sind allerdings rechtskonform und müssen nicht aus der Arbeit entfernt werden.

Wenn Sie Fragen zu dieser Erhebung haben, wenden Sie sich bitte gern an die Verantwortliche der Masterarbeit: Diana Kronegger (a01253523@unet.univie.ac.at), Studentin der Studienrichtung Internationale Betriebswirtschaft an der Universität Wien, Postadresse Stumperggasse 44, 1060 Wien.

Für grundsätzliche juristische Fragen im Zusammenhang mit der DSGVO/FOG und studentischer Forschung wenden Sie sich an den Datenschutzbeauftragen der Universität Wien, Dr. Daniel Stanonik, LL.M. (verarbeitungsverzeichnis@univie.ac.at). Zudem besteht das Recht der Beschwerde bei der Datenschutzbehörde (bspw. über dsb@dsb.gv.at).

Ort, Datum, Name

APPENDIX B: INTERVIEW GUIDES

INTERVIEW GUIDE: CONSULTANCY

Date and Time	
Location	
Name of Consultancy	
Name of Interviewee	
Role in Consultancy	
Years of experience	

1. How advanced do you believe is the FinTech industry in Central and Eastern Europe?
2. In what way are FinTech companies disrupting the financial industry in Central and Eastern Europe? Does this pose a threat to traditional banks?
3. Which products and client segments are most disrupted by FinTech firms in Central and Eastern Europe?
4. What factors are essential for financial institutions to operate successfully, especially FinTech companies?
5. What are the advantages and disadvantages of traditional banks compared to FinTechs? What are the weakest points of traditional banks? Do you think traditional banks can keep up with innovative FinTech firms?
6. What are the advantages and disadvantages of FinTechs over traditional banks? How can FinTech firms gain a competitive advantage and increase their market share?
7. Do you believe that collaboration or competition with traditional banks is more beneficial for FinTech companies? What factors does this depend on? What role does the type of FinTech company play in this matter?
8. What factors do you think are essential for FinTech firms when deciding whether to collaborate with a traditional bank or not? What are the implications of collaboration?
9. What are the factors that lead traditional banks to cooperate with FinTech companies?
10. Which factors lead to a successful collaboration between a FinTech firm and a traditional bank?
11. Are current laws for the financial sector helping or hindering innovation in financial institutions in Central and Eastern Europe?
12. What is the role of the government? Does it support the FinTech initiatives?
13. What are the most significant regulatory obstacles for FinTech companies?
14. Do regulatory issues impact the relationship between FinTech companies and traditional banks? If yes, in what way?
15. How does the Corona crisis impact the financial sector and particularly the FinTech industry? What challenges are financial institutions facing, and how can they be overcome?
16. How can FinTech firms help traditional banks to get back on track after the Corona crisis?

INTERVIEW GUIDE: FINTECHS

Date and Time	
Location	
Name of FinTech	
Name of Interviewee	
Role in FinTech	
Years of experience	

1. How advanced do you believe is the FinTech industry in Central and Eastern Europe?
2. Which products and client segments are most disrupted by FinTech firms in Central and Eastern Europe?
3. In what way is your company disrupting the financial services industry? Does this pose a threat to traditional banks?
4. How would you describe the business model of your FinTech?
5. What factors are essential to operate successfully as a FinTech?
6. What are the advantages and disadvantages of FinTechs over traditional banks? How can FinTech firms gain a competitive advantage and increase their market share?
7. What are the advantages and disadvantages of traditional banks compared to FinTechs? What are the weakest points of traditional banks? Do you think traditional banks can keep up with innovative FinTech firms?
8. Do you believe that collaboration or competition with traditional banks is more beneficial for FinTech companies? What factors does this depend on? What role does the type of FinTech company play in this matter?
9. Are you currently in collaboration with a bank? If yes, which one is it, and what factors made you decide to collaborate? What are the implications of cooperation?
10. What factors are vital for you when deciding whether to collaborate with a traditional bank or not?
11. Which factors lead to a successful collaboration between a FinTech firm and a traditional bank?
12. Are current laws for the financial sector helping or hindering innovation in financial institutions in Central and Eastern Europe?
13. What is the role of the government? Does it support FinTech companies? If yes, in what way?
14. What are the most significant regulatory obstacles for FinTech companies?
15. How does the Corona crisis impact the financial sector and particularly the FinTech industry? How are you dealing with the current situation?
16. How can FinTech firms help traditional banks to get back on track after the Corona crisis?

INTERVIEW GUIDE: TRADITIONAL BANKS

Date and Time	
Location	
Name of Bank	
Name of Interviewee	
Role in Bank	
Years of experience	

1. How advanced do you believe is the FinTech industry in Central and Eastern Europe?
2. In what way is the digitalization in the finance sector affecting your institution? How are new entrants changing your business in terms of revenue, market share, and customers?
3. How would you describe your business model? Does your current infrastructure provide FinTech solutions? Why or why not?
4. Which products and client segments are most disrupted by FinTech firms in Central and Eastern Europe?
5. What factors are essential to operate successfully as a bank?
6. What are the advantages and disadvantages of traditional banks compared to FinTechs? Where is room for improvement?
7. What are the advantages and disadvantages of FinTechs over traditional banks?
8. Do you believe that collaboration or competition with FinTech firms is more beneficial for banks? What factors does this depend on? What role does the type of FinTech company play in this matter?
9. Are you currently in collaboration with a FinTech firm? If yes, which one is it, and what factors made you decide to collaborate? What are the implications of cooperation?
10. What factors are vital for you when deciding whether to collaborate with a FinTech or not?
11. Which factors lead to a successful collaboration between a FinTech firm and a traditional bank?
12. Are current laws for the financial sector helping or hindering innovation in financial institutions in Central and Eastern Europe?
13. What is the role of the government? Does it support FinTech solutions?
14. Do regulatory issues impact the relationship between FinTech companies and traditional banks? If yes, in what way?
15. How does the Corona crisis impact the financial sector?
16. How can traditional banks get back on track after the Corona crisis? What challenges are you currently facing, and how are you planning to overcome them?

APPENDIX C: TRANSCRIPTS

Expert interview 1	**Consultancy A (C1)**
Date and Time	4th of May 2020 at 9 am
Location	Skype
Name of Interviewee	Anonymous
Role in Consultancy	Manager

Interviewer (I): Thank you for participating in the expert interview!

C1: Sure.

I: How advanced do you believe is the FinTech industry in Central and Eastern Europe?

C1: Well, I think there are several dimensions or perspectives to this core question. First of all, I think you can agree with the answer in terms of how advanced is the FinTech industry within Central Europe. However, you have to look actually on the individual country levels, since, in my opinion, there is a huge difference whether you're, for example, analyzing FinTechs within Hungary versus FinTechs within Russia or versus FinTechs within Kosovo. So, I think that the answer to the question is that we have several countries with a different level of advancement, with a different level of eco-system, lying beneath, we have the reactive countries, in my opinion, like for example, Poland or the Czech Republic. And of course, if you include in Central Eastern Europe, Russia. And you have countries which are in terms of market size and also in terms of FinTech activity, which kind of probably goes hand in hand. There are less active, for example, Hungary and all smallish countries like Kosovo.

I: In what way do you think are FinTech companies disrupting the financial industry in Central and Eastern Europe? Do you think it poses a threat to traditional banks?

C1: Well, this also depends on which type of FinTech do you observe. Do you observe FinTechs that have a dedicated business-to-customer business model? For example, Number 26, then you would have for actually N26, then you would probably have a direct challenger proposition versus the proposition that traditional banks are offering. But many FinTechs nowadays also try to cooperate with banks strongly, therefore do not pose a threat but a cooperation potential. So also the answer here is that there is no general answer. Of course, you have certain FinTechs that are aiming to disrupt either the whole industry or several aspects and steps within the value chain and then and then you have other FinTechs that clearly are aiming to cooperate with traditional banks.

I: So, you see a tendency that is going towards cooperation?

C1: Well, I think there are two main directions with competition and cooperation, and it depends which proposition is the most fitting one, to choose either to compete against traditional banks or to cooperate with traditional banks. In my opinion, I would probably say that there is a tendency for more cooperation, since it proves to be quite challenging to really disrupt a whole incumbent industry, and it is more likely to succeed at least in the first steps by strongly cooperating with banks. We see it, for example with Scalable capital, that it's quite a reputable Robo-advisor, originated from Germany and those guys are trying to kind of introducing new wealth management service for all types of client groups but are now more and more seeking out cooperation and white labelling so this is with traditional banks. And then you have even more fitting examples of cooperation where FinTechs are really only trying to solve one specific problem in a value chain. But on the other hand, you also have FinTechs that clearly aim for war with traditional banks that are really focused on disrupting and challenging that, so it really depends on the type of FinTech.

I: Which products and client segments do you think are most disrupted by FinTechs in Central and Eastern Europe?

C1: Well, traditionally, this development started with clear business-to-customer propositions. So, we had very basic products in mass, compatible client segments. Think, for example, in the way of innovative current accounts or specific products like consumer lending. Nowadays, I think there is FinTech activity in each and every aspect of traditional retail banking. Value chain not only retail banking, but also some corporate banking efforts, but if I had to focus, I would say most FinTechs or most disruption is taking place within the broad in a retail banking aspect, meaning probably individual clients, as well as probably smallish corporate clients. But the notions here on smallish and the products are to start with the more basic ones. And nowadays it's kind of evolving into more complex and advanced ones.

I: What factors do you think are essential for financial institutions to operate successfully daily, especially FinTech companies?

C1: I think there are as well, different dimensions and aspects to this question. One aspect is, of course, that they have to derive a value proposition, a product proposition with a clear product-market fit, meaning that they have to constantly reiterate and retune, finetune their product offering towards their client base needs. So, they need, on the one hand, a successful product. On the other hand, they need access to capital, to venture capital, to fund their growth. On the third hand, I think they need a supporting ecosystem that kind of goes together with the venture capital point mentioned a second. So, they need the ecosystem that supports them, which helps them foster growth that helps them connect with income and banks, helps them connect with potential venture capitalists, business angels, et cetera, helps them kind of facilitate this growth. And lastly, of course, they need to kind of being able to operate the business depending on which type of business they need to have a structured operating model with people that are in charge. And, yeah, of course, you also have the regulatory perspective which needs to be taken into consideration. You need to be supported or at least have some kind of discussion base with your local regulatory body as well. I think the combination of those five dimensions is what really is essential for FinTechs to kind of develop, to kind of grow, and subsequently operate.

I: What do you think are the advantages and disadvantages of traditional banks compared to FinTech companies?

C1: Well, again, I think it’s a very broad question, so in a nutshell, not every bank is similar. But when I think about the typical traditional incumbent retail bank, which usually has a very long-lasting and growth of tradition, some retail banks, are even more than 100 years old, and they have kind of experienced different banking development cycles, meaning they have a grown IT infrastructure, they have a grown and kind of saturated workforce. And they simply are big and often in terms of how they are organizationally structured, complex animals, with lots of decision bodies, with lots of decision processes and even decision structures in many retail banks - think about the saving banks are not owned by a single entity, but by, let's say, a mixture of several organizations - and simply this organization complexity makes it quite hard to derive a clear will. And, this is, on the one hand, a major disadvantage, since you have a very grown structure, you have a very grown IT infrastructure that's not on, let's say, keeping up with the pace and keeping up with the latest developments, since it's simply not possible to change your crucial core systems constantly. And on the other hand, it's a big advantage, since you have a grown and often quite loyal client base, which is simply based on a long-lasting customer relationship, and therefore they have access to real clients, access to real funds of clients. Yeah, that's pretty much how I see that.

I: So, you think the weakest points are basically the organization complexity and the infrastructure of banks?

C1: I would say so, yes. And, since those are grown and traditional organizations, this grown aspect makes, on the one hand, the infrastructure quite complex, on the other hand, the organizational structure itself.

I: Earlier, you said there is a tendency for cooperation. Do you think banks will cooperate to keep up with Fintech companies? Do you think, in general, they will be able to maintain their business, or do you think at some point they won't exist anymore?

C1: No, I think it's a long way until banks don't exist anymore. I think banks will change, and we see that kind of behaviour. We have observed this kind of behaviour in the last couple of years. Banks have been focused on reinventing their organization, reinventing their structure to be more agile, to be more flexible in terms of reacting to client demands. And so, I think it depends on the specific bank. Some banks will make this organizational and structural change to real agile champions. Some banks will simply disappear. Some think FinTechs will make the step to be a real market player, and many FinTechs will simply disappear.

I: If you compare banks to FinTechs, what do you think FinTechs' advantages are? You already said they are more agile than traditional banks. What other advantages are there?

C1: Well, FinTechs are funded most often for a very specific reason and quite recently. So they can rely on the newest technology possible to solve specific problems. So, they are often quite lean, often quite agile in terms of their structure and their infrastructure. The biggest disadvantage is, of course, that there are no own capacities, since they often do not have substantial clients. They do not have access to real clients. So, it's often more kind of a proof concept and not a real product. This is probably the biggest disadvantage. They simply do not have access to clients, they do not have a client base, they do not have revenues from this client base, and this is probably their biggest disadvantage.

I: Do you think FinTechs are more likely to attract younger customers because they're agile, so they target Millennials?

C1: Well, I think this kind of depends on the specific proposition. Of course, if you're N26 and you're kind of designing the most user-experience focused and most innovative current account, then obviously you will target the more digitally minded millennials. If you are, let's say, a B2B FinTech that's trying to help an incumbent bank solve a specific problem, then you will probably not market to Millennials at all, but your marketing will be more B2B marketing for traditional institutes. So, it really depends, again, on the proposition. Since FinTech is a very broad term, there's a huge difference between a B2C FinTech versus a B2B FinTech, and therefore I think there is no easy answer to this question.

I: How can FinTech firms gain a competitive disadvantage, do think, and how can they increase their market share? Do you think cooperation would be the best way, or should they operate on their own?

C1: Well, I think there are successful examples for both ways to go. There are successful examples where FinTechs decided to cooperate with banks in order to gain access to a client base, in order to gain access to capital, in order to gain access to, let's say, more, more incumbent banking problems. And on the other hand, some FinTechs are quite successful with being standalone and really trying to challenge. So, I think with many of those questions, it really depends on what specific proposition they are following and is the proposition one that is fitting more for the cooperation aspect, or does it fit more for a competition aspect?

I: What role does the type of FinTech company play in this matter?

C1: So, I think that that's probably the answer I have just given you before. So, it really depends on when you look at this whole collaboration versus competition aspect. I think it really depends on the proposition and the ultimate goal of the FinTech and the bank. There will be some propositions that are more suited for cooperation, and there will be some propositions that are directly targeted towards competition.

I: What factors are important when a FinTech firm decides if it will collaborate or not with a bank? What is important for a FinTech?

C1: So, I think when FinTechs are deciding to cooperate with the bank, they are usually trying to get access to the customer base that they have not been able to successfully acquire on their own, on the one hand, it's access to clients. On the other hand, it often accesses to specific, specific knowledge and insights that the incumbent banks have. So how to solve this problem, for example, from an operational perspective in the best way. And the third aspect is often getting some funding out of this cooperation to simply further develop the growth. The implications are that you have access to a client base that you potentially can now try to onboard on your services. But I think you have to be careful not to lose kind of independence and not to lose your FinTech spirit and be as quick and as agile as you have been before, even if you are cooperating with major banks.

I: Why do banks cooperate with FinTech companies?

C1: I think the main focus is to either reduce the time-to-market or the cost-to-market for specific propositions. It's often quite complex to develop a solution on your own. And often, the in-house developed solutions are not as good as the solutions developed by state of the art FinTechs. In this case, it would reduce the time-to-market, as well as the cost-to-market, for offering your clients an innovative service that you would otherwise have not been able to offer.

I: What do you think makes a collaboration successful? Are there any guidelines or steps to take to be successful?

C1: I think both players in this cooperation have to kind of understand what the other company is. You cannot ask from a big, often public company that they are as agile, as reckless, as flexible as a FinTech, because simply that's not how this kind of corporations can work from a legal as well as from an organizational perspective. And on the other hand, the banks have to understand that dealing with a FinTech that does not have and does not need ten thousand policies to regulate everything from public procurement to HR. So, I think to really make this cooperation successful, both parties have to understand the specific characteristics of the other party, as well as have to respect the way of work regarding the other party. And ideally, you can kind of organizationally create a setup where this FinTech endeavour is kind of structurally separated from the core business. So, then you could combine the advantages meaning knowledge, client access, capital, the experience of the traditional incumbent player with the agility, and the recklessness of a FinTech in a separate entity and could bring both strengths together.

I: And do you think current laws are helping or hindering innovation in the financial sector in Central and Eastern Europe?

C1: I think the regulatory bodies have done quite a good job to kind of foster innovation within the sector. I think regulation is necessary and good evil. But the “evil” this is, strictly speaking, here in quotation marks, since it kind of enables market security, it enables customer protection, enables a fair and level playing field for all players. And the regulatory bodies have kind of identified that FinTech is not a bad and shady thing and have got a lot of things to kind of facilitate this development, for example, think about the PSD2 guidelines that kind of make it possible for new players to enter the payment services playing field easily and therefore reduced the market entry barriers in terms of regulatory perspective, quite heavily.

I: So, you think the role of the government rather helps the development of FinTechs?

C1: Well, it can and can’t be. I’m here more or less focused on, on an Austrian and on a German perspective, on a Czech perspective, where it definitely is the case. I cannot speak, for example, for Kosovo, for Serbia, since I simply do not know it. But, since at least for EU countries, there should be kind of a level playing field, and then I’d say, yes, governments can have the role to support FinTech ecosystems, whether they are up to it, it depends on the specific country itself.

I: And what do you think are the largest regulatory obstacles for FinTech companies in general?

C1: Well, the regulator aims for customer and market protection, especially customer protection, which is good. Something very valuable in the European Union that no private, no private customer loses his or her money yet. So, the largest regulatory obstacle is probably that this whole regulatory field is very grown, is a very also comprehensive and complicated field with lots of different regulations that have to be taken into consideration and often also geared towards big and traditional banks. FinTechs often do not have the manpower nor the experience to deal with these regulatory requirements, which interestingly also paved way again for other FinTechs. Think about Solaris bank, for example, that kind of is a FinTech assets service, if you like to put it that way. Solaris bank is offering you the whole operational and legal foundation, so you only have to kind of develop the real customer and product proposition, whereas Solaris takes care of the regulatory compliance and the banking license.

I: And do you think that regulatory issues impact the relationship between FinTechs and banks?

C1: Could be. Since banks as FinTechs obviously have to oblige with the regulatory requirements and especially when you're a public bank. You simply do not want to explore any grey shaded areas. Everything has to be white and has to be 100 per cent legal. There cannot be any doubt about it. Whereas FinTechs probably, although depending on the specific context and the respective management, are keener to kind of exploring the boundaries of the regulatory rules, kind of dwelling into this grey area between everything is perfectly legal, and everything is totally, totally forbidden. So, I think there are kind of mindset differences, since a public bank has simply more reputational risk and more exposure and more also kind of, let's say, skin in the game, then a newly funded FinTech and therefore is probably more conservative.

I: And now I would like to talk about the Corona crisis and the impact and that it has on the financial sector. So how do you think that this crisis impacted the FinTech industry particularly?

C1: Well, I think that's, again, a very, very broad question. Since Corona is something that nobody really has envisioned, and the real impact is, in my opinion, as the date of we are speaking here, not really certain or not really transparent. We could pretty much stumble in a world-wide economic crisis, or we could have this miraculous reshape-recovery and shrug it off within a year. But I think Corona kind of impacted our everyday life, whether you're a bank, whether you are a FinTech, whether you're a private individual. And the biggest threat I'm seeing is simply that the banks have that many defaults that they will not be able to function anymore within their capital requirements. And for FinTechs, the biggest threat is probably that they cannot secure new funding for the further development, since the venture capital, etcetera, are also maybe cash constrained in the future and are not that willing to risk money anymore. But that's pure speculation, actually.

I: Mhm okay. And how do you think could FinTech firms help banks to get back on track after the crisis, or do you think they have to deal with their own operations?

C1: I think that both aspects are valid. On the one hand, banks and FinTechs have to kind of do their own homework to survive this Corona crisis simply. And then, of course, you could imagine that FinTechs are offering a superior value proposition and, therefore, can help incumbent banks to be more client-centric and to provide better user experience, etcetera. But I still think that's not the main focus of this, this whole FinTech and bank topic and not the most pressing one in terms of the Corona crisis.

I: Okay, we reached the end of the interview. Thank you very much!

C1: You’re welcome.

Expert interview 2	**Consultancy B (C2)**
Date and Time	5th of May 2020 at 5 pm
Location	Microsoft Teams
Name of Interviewee	Anonymous
Role in Consultancy	Consultant

I: Thank you for participating in the expert interview about FinTech and bank collaboration! How advanced do you perceive the FinTech industry in Central and Eastern Europe?

C2: I think the industry itself is not really advanced. It’s lagging behind bigger players, mostly from the Anglo-Saxon world, I would say. Nonetheless, there is a possibility to use a lot of FinTech tools already. So, as a user, let’s say from Romania, I’m able to open an N26 bank account or Revolut bank account or trade with Trade Republic for free and something like that. I think that's already possible. So, I would say there are companies active there that are quite advanced. But I don't know a lot of, let's say, Austrian or Romanian start-ups in the FinTech world. So, I would say the companies from the CEE region are lagging.

I: Okay, and in what way do you think that Fintech companies in the CEE region are disrupting the financial industry? With which services, for example, or what do they offer?

C2: So from the CEE region, I know, for example, Bitpanda, which is in cryptocurrency, I would say that's pretty disruptive. To be honest, apart from that. There are probably some local copycats of challenger banks, of quite cheap brokerage accounts. And I guess there is one Austrian start-up, now that I think about it, that I also think is disruptive in this field. Baningo, which offers. I'll send you the link.

I: Thank you.

C2: Basically, it integrates the face-to-face customer relationship amongst different banks in one online platform. So, it's rather for people who like to visit the branch, but more in a more digital way, I would say. That's a thing I have not seen in other areas. And I think that's pretty disruptive for CEE standpoints. The other companies that come to my mind which are like best in class also in the FinTech area, at least what I know, they are quite young. They are followers rather than disruptors and leaders.

I: And would you say, for example, if you think about retail banking and the FinTechs that are operating in the retail banking sector, do you think it poses a threat to traditional banks?

C2: The companies that are active there, I would definitely say that they pose a threat to traditional banks and traditional retail banking. There is no reason to use the brokerage service of traditional retail banks when there are way cheaper Robo-advisors. There is no reason to pay a lot for foreign exchange transfers when there is something like TransferWise, or there are cheap multi-currency accounts like Revolut. So I would say those are challenged extremely, not necessarily by local players, but, since you can have within the European Union, you can have one banking license, and you can bank the whole Euro area and, to some extent, also the whole European Union. It's quite the threat from, I guess, bigger players who have maybe a German banking license or a UK banking license. Keeping Brexit aside for a moment, those being active than in Central and Eastern Europe. I think some Austrian banks who also are very, very active in CEE go in the right direction. So, I guess simply for a nice online banking interface, you would not necessarily change your George account against something else. Maybe for a pricing reason, you would go to Revolut and also with the brokerage account. I think many people would go for cheaper offers than in the traditional banking area.

I: And do you think that FinTechs target more Millennials because their products are digital or which client segments do you think are most disrupted by FinTech firms?

C2: I guess initially, the basic checking account area. I would say those are quite disrupted. But I think that's only the first step. So, this is the thing every customer really needs, and from there on, the FinTechs can up-sell. They do it by offering products themselves. So, they do it by integrating other innovative and mostly cheap other offers. Like a cheap foreign exchange transfers using TransferWise, a cheap brokerage account or a cheap ETF savings plan with, let's say, Scalable Capital or offering good interest rates to maybe Tier 1 countries or Tier 1 banks with Global Savings Group or weltsparen.de. I think they are really traditional banks, if they lose the customers now to like a checking account, that's the first step in them also losing the business from the credit, losing the business from brokerage, losing the business in the savings accounts as well, because there is no reason why up-selling wouldn't be successful.

I: And what are the advantages and disadvantages of traditional banks if you compare them to FinTechs?

C2: The number one advantage is that they already have the customers, and they have, in most areas, great brand recognition and great trust. They are already there, and they have a couple of disadvantages. I would say their digital products are inferior. I would say their internal processes and the internal innovativeness is less than for FinTechs. They are not as agile as larger organizations. They don't have the skills to develop the same level of digital products, and they have a lot of baggage. They have legacy IT. They have people with skills that are not needed in the future. At least not to that extent, they lack people with skills which are needed in the future. And also, from a cost structure, they have some disadvantages. If you have a lot of brick-and-mortar presences which are not needed in that way anymore. And I mean, I guess the current Corona crisis is an accelerator for that trend going to the bank less and less and doing everything possible online. They need to get rid of those costs at some point or reduce those costs, and FinTech is never going to build these costs up. So that's a price disadvantage, I would say.

I: And do you think traditional banks can keep up with FinTech firms, or do you think eventually FinTech firms will take over in the banking area?

C2: I guess some FinTechs will become successful and will become fully functioning banks by offering more and more of traditional banking products in a cooler digital way. I think some FinTechs will be the providers for technology for traditional banks, as well as other FinTechs or products for traditional banks and other FinTechs like, for example, Scalable Capital is offering their own product, but also licensing this product to traditional banks. And I think some traditional banks will definitely suffer. And they will lose market share. Other traditional banks will adopt and will reinvent their product offerings, maybe with partnerships, maybe with creating interesting digital value propositions themselves. So, I don't see that there is one dominant way, because traditional banks will adapt to what the customer wants, and FinTechs were able to see that and attacked that customer group or served the customer group earlier. So, yeah, I would say without adoption, it would be impossible to have a traditional banking business in 50 years. But they have been adopting ever since the banks were founded, so they will do it again. And there will be some great traditional banks with great digital offerings and then also selling to Millennials and other younger generations.

I: If you compare FinTechs to banks, what are the advantages of FinTechs besides being more agile and more digital? And what are the disadvantages of FinTechs?

C2: I would say you can take all the disadvantages from the list of the advantages of the retail bank, so that's pretty much the same way around disadvantages. They don't have customers. They have to acquire them expensively. They don't have a trusted brand name. They have to acquire that quite expensively. They are not as well known. They don't have any legacy systems. They don't have legacy customer service. They don't have things they can build on in terms of security and stuff like that. They have to invent everything themselves, which can be a problem. It's a burden if you don't meet those parts anymore, or you have to transform them. And then you have the big advantage to really build it up yourself and be more innovative. And we think the whole process has not been build on something that has been there for decades in some part. But on the other hand, you start with zero. So, I guess it's really everything from the question above the other way around.

I: Do you think that collaboration or competition with traditional banks is more beneficial for FinTechs?

C2: Strongly depends on the FinTech. So, for Scalable Capital, it makes a lot of sense to cooperate because it’s quite expensive. They have a nice algorithm and a nice technical product. But they don't have the scale in terms of customer acquisition. They can offer their service to traditional banks. Traditional banks have the advantage of not having to build the whole tech behind. Traditional banks can basically sell it as their own product. So, it's a win-win situation. When you offer a cheap savings account, why would any company want to partner with you? They have it themselves. They have some different pricing, maybe for the customer. But if they would adopt a little bit similar to, let's say, what Erste Group has done with George, there's no need to cooperate with someone who offers basically the same. So also, for Number 26, it would not have made a lot of sense to go to Erste Group and tell them, “You can now use our cheaper, nicer looking app, savings app, or checking account.” That wouldn't just have not made sense for either party. So, the answer to the question is, it depends.

I: Yeah, I see. And what factors do you think lead to successful cooperation between a FinTech firm and a traditional bank?

C2: When the deal makes sense for both parties. When the FinTech is offering something that the traditional bank is not able to build up itself in a reasonable amount of time for a reasonable price. Then it makes sense for cooperation. And when the retail bank can still be the owner of the customer. When the customer at the end of the day has an additional product, which they say, “Ah, okay, it’s nice! I can use a Robo-advisor now. This Robo-advisor is branded with my traditional bank, and I don't really care what's in the background.” A FinTech handles everything. So, as a customer, let's say, of my local Raiffeisen Bank, and they maybe use some other provider for offering this product. Then it makes sense, also for the FinTech. If they directly compete on either holding the customer or on the product itself, then collaboration makes no sense, or only really limited sense.

I: And would you say that current laws for the financial sector are helping or hindering innovation in Central and Eastern Europe?

C2: I guess the most important law for pushing innovation, or at least that I'm aware of, was the Payment Service Directive 2. So, when I worked at the FinTech, we basically built up our whole idea around this new legislation, which was introduced in the European Union but had to be adapted for every member country. A lot of Central and Eastern European countries are members of the European Union. I'm not aware of any similar laws in the different Non-European Union countries in Central and Eastern Europe. So, I can't talk a lot about that. But that definitely helped innovation with basically the access to accounts regulation where I, as a customer, can decide that my bank has to share my data with other banks, with other apps, with other providers who then can make use of this data by giving me a better credit score, offering me special individual offers, helping me optimize my personal finances. So, I guess without that push in legislation, there would have never been innovation in that regard. The same thing goes for video identification and maybe in the future, having an online identity in that regard. If we have more and more that kind of regulation where the whole KYC process can be done easier, that would help innovation, and it would help customer acquisition for new entrants and new entrants to more competition, in my opinion, leads to more innovation. I'm pretty sure it always depends on where and what you look at. Since some of those things are not yet in place, that hinders innovation. But in the end, I think it goes in a good direction. And the awareness is there that digital channels have to be used, and digital technology will be more and more part of the banking industry and regulation. Maybe, sometimes it's the driving force behind innovation. Sometimes it's hindering innovation. But I would say in general, with the EU having a lot of influence here, it goes into a good direction, I would say.

I: Now, I would also like to talk about the Corona crisis, since it's such a current topic. How do you think the Corona crisis impacts the financial sector and particularly the FinTech industry? And, what challenges are financial institutions facing right now?

C2: So, I guess it changes a lot. On the one hand, you have people staying at home. I guess that is definitely a boost for everything that's digital. If you have the need to open a bank account right now, you should do it digitally, or the best way to do it is digital. So, banks who have a great process there or FinTechs, they are in advantage. This will be over at some point. So, of course, people are getting more and more used to doing their banking online. And people will stick to that because it's a trend that is accelerated by that. So, if you have never used online banking and you have to do it now for the first time, and you can actually switch to it, you will be likely to do that in the future as well. So, you have that. But that’s a thing that's only accelerated with the current crisis. Then you have the big other point of the implications, basically regarding an economic crisis. So, people may be losing their jobs, going into furlough, and having less money because they just get compensated part of their wages and stuff like that. So that would lead to defaults on loans, and it could lead to lower investments. So that could be part of the whole Corona crisis. Not sure how that will turn out at the end of the day. Banks are right now giving out a lot of loans that are backed by the government. They get some fee for that, which is positive. Then you have a lot more people interested in capital markets because whenever there's a lot of volatility in the market, people are opening brokerage accounts and trading more because they think now they can make a lot of money with it or they already invested before, and now they panic. They sold everything, which is also like short term positive for a bank when they get some brokerage fee for that. So, there are so many different areas where banks and FinTechs are affected, which is not by the virus itself, but by all the consequences from social distancing and higher adoption in online penetration today and to the big changes on a financial and an economic way. And when we go like one level above or deeper, it depends on where you look at it, on what angle you take a look at it. Of course, the central banks have lowered interest again, have increased the bond sales they do on the secondary markets. In some central banks even directly lent money to the government. So, this driving down interests across the board, this negative interest lashing that we have had basically since the Great Recession 2009 also puts more pressure on gaining positive share or dividend on the savings business of traditional banks. So, at some point, they have to as well charge negative interest rates maybe to their clients, which will lead to a lot of them leaving banks and going somewhere else where they don’t have to pay negative interest rates and stuff like that. The economic consequences of the Corona crisis will have a great influence on the banks and the FinTechs as well. I can think of so many different levels where it actually will be influenced, but how and how much and to what extent? I have no idea. If I had, I would basically be able to see into the future. But from the point of view now, I really don't know how it will turn out.

I: Okay, good. I have one last question. Do you think FinTech firms can help traditional banks to get back on track after the Corona crisis? And if yes, in what way?

C2: Let's start again with the things I'm surer about, and I will then introduce other thoughts I have on that where actually nobody knows yet, or at least I have no clue if it's just a hypothesis. But I would say what's pretty certain is that people are getting more used to digital technology. People who have not been doing online banking will more and more do that in the future. So, an online-only bank is less of a burden for a small group of people who have never considered doing that. I've seen studies about retail that a lot of people do online shopping for the first time, which for me sounds crazy because, I mean, Amazon has been around for ages. It’s so convenient. There's no reason not to shop online. But people do that for the first time, and they say, “Yeah, okay, I like the experience, I will do that in the future again.” Of course, they will go to other stores as well, like online shoppers also go to offline stores. But you have a group of people who were traditionally outside your target group now being inside your target group for online shopping. My hypothesis is, it's pretty similar to online banking. People who were very much going to their bank branches and had now the experience of having to stay at home or wanting to stay home because they are maybe afraid of the virus because of pre-existing conditions or their age or something like that discovered now that online banking makes sense. So, for an online-only bank, and most of FinTechs are online-only, it is definitely a new target group that COVID has decreased the barrier to go into that regard. So if I’m a traditional bank and I don't have good online banking, I have to think about what can I do to get some good online banking or to introduce online tools, as I would say, a traditional bank with no presence online yet but wanting to get closer to the customers during that time could make use of baningo, for example, to have their bank clerks and their personal financial advisors on there and share via video calls their expertise and doing customer care there. And also, other digital-first products like, for example, a Robo-advisor could be offered. So, I just see an acceleration. So maybe things that would have been thought about in a couple of years have to be thought about now in terms of partnering up. I don't think one Fintech or partnering with FinTechs will get a bank that is in crisis, now out of the crisis. I guess many other things influence that being the low-interest rate regime, being defaulting loans, being definitely very much dependable on what the governments are doing in terms of stimulus packages and guarantees for loans and what the central bank is doing. Much more influences them than if they would now partner with FinTechs or not. That's just an acceleration. And I guess FinTechs won’t save them, but if a partnership has made sense before the crisis because of more digital-focused customers than during and after the crisis, this will be even more the case. The same goes for price sensitivity. Yeah, I'm sure it is definitely the case. If people have lower income levels and maybe even have a little bit more time to think about their expenses, then a checking account that costs 10 euros per month is one hundred and twenty euros more expensive than Number 26, for example, per year. So that could also be a thing here that if they are able to offer cheaper products in partnerships, maybe with FinTechs or on their own, that could be a way forward in an economy that is not that certain and where people have lost part of their income.

I: Okay, thank you very much! We already reached the end of the interview.

Expert interview 3	**Consultancy C (C3)**
Date and Time	28^{th} of May 2020 at 4 pm
Location	Zoom

Name of Consultancy	STM Consulting
Name of Interviewee	Stephan Manz
Role in Consultancy	Consultant
Years of experience	Four years at STM Consulting

I: Thank you for participating in the expert interview about FinTech and bank collaboration!

C3: My pleasure.

I: How advanced do you believe is the FinTech industry in Central and Eastern Europe?

C3: It’s, of course, always a question in which category you look for measuring this. If you measure it by a million euros profitability, then, of course, the impact is very, very low. If you try to measure it in a way that you say, okay, what are the product categories where FinTechs play a relevant role, then I would say the FinTech industry is quite advanced. Of course, starting with the market segment of retail clients, and there are again with regards to, let’s say typical consumer lending and accounts. If it's getting to small and medium enterprises, I think the degree is lower. But it's pretty much improving, especially in the last two to three years. And it's very low if it comes to really big corporates because usually for FinTechs, it's not very smart to offer a product or service only at a very limited market scope. So, of course, FinTechs started with the retail industry, and this will be the focus for the next couple of years as well.

I: And in what way are FinTech companies currently disrupting the financial services industry, would you say? And do you think it poses a threat to traditional banks?

C3: This is, of course, a very often discussed topic, and I think one aspect is, of course, yes, banks are getting disrupted. The question is from whom. Google, Amazon are most probably more critical to traditional banks than FinTechs. But if you focus on FinTechs first, I think that they are disrupting banks. They will last much longer than all of us expected. I mean, if you take a look at a company like N26, I mean, you're born in Austria as well. They are very successful, especially when it comes to the younger population, the younger bank clients are looking for a more modern, stylish bank with a mobile-first approach and things like this. But when it comes to profitability, whether N26 is active in Austria or not does not really cause a difference to one of the traditional banks. I would say it's very, very limited. If you look at, for example, to Raisin deposit solutions, which are offering the deposits. I think they, in the meantime, really have a relevant market share. But again, there is a lot of business to come. I do think that even also Corona is forcing this change. And suddenly I think in Austria, it's very similar to Germany. We all like to pay in cash, but now within two months, we drastically changed this approach. We like to do it mobile, with Apple Pay, we like to use PayPal, things like this. So, I think that these firms and the entire payment industry are already almost disrupted. That's the only very limited opportunity for the traditional banks to get back into this business. So, I think the difficult thing is for the banks, of course, that if you take a look at your P&L, you most probably fall asleep. But this is, of course, a totally wrong judgment to this situation.

I: And which products would you say are most disrupted or which client segments are most targeted by FinTech companies?

C3: Yeah, payments and retail clients, of course. That's the most relevant segment. Followed by consumer finance, consumer lending, and savings and followed by SME as another really relevant market segment.

I: And could you also describe the business model of bank99? For example, when you were working there?

C3: Yeah. I mean, in the end, bank99 is a pretty traditional bank, given the fact that they are owned by the Austrian post. What I would say is that bank99 tries to copy the success of FinTechs with a really splendid UX and a real mobile-first approach. And so, via this, they try to attract the same customer segments than, for example, N26. Whether this will be successful or not, I think it's a little bit questionable. If you are a young person. I mean, you are a young person, and you like to go to a modern bank, and you have to choose between Austrian post and N26, then, of course, at least the brand Austrian post, and as you know, bank99 is completely different and in a different area category compared to N26. And the other set of bank99 is a totally different one because it's attracting the client segments of traditional clients that are living in smaller villages outside the big cities. Given the fact that bank99 can offer access to 1800 hundred point of sale, at least for getting cash and things like this. So, these are two very, very different segments. And I think especially the second one is very relevant. I think that bank99 has a really good chance to become very successful in this area. Especially because the brand of the Austrian post is very well perceived in Austria. So many people will do have the trust in this brand, and they will continue to love to have a physical access point to this bank. And this, I think, is a very interesting combination. And, of course, the future will show which of these two angles of bank99 will become the more successful one. Let's hope it's both.

I: Yeah, let's hope so. And what factors do you think are essential for financial institutions to operate successfully daily? For example, if you take bank99.

C3: I think it's, of course, always a question of customer orientation, focusing on client needs and not only mentioning it but really behaving like this. So, it starts with a superior UX with regards to your mobile application and also with regards to the physical access to the post branch. So, if you go to a post branch and you have to wait fifteen minutes before you can talk to a relationship manager. You will not perceive this as a very good service. And if you send a request and you have to wait for a couple of days to get an answer, you will not like it. So, in the end, the customer experience will be the driver for success. And this is, of course, economically a very delicate aspect because superior customer service always costs money. And on the other hand, you also want to offer the service at least for a low budget. And it's definitely the key component for becoming successful.

I: And what would you say are the advantages and disadvantages of traditional banks compared to FinTechs? And what are the weakest points of traditional banks?

C3: Yeah, the weakest points of traditional banks are for sure that they have to battle with a lot of legacy systems or legacy processes. So, everything is complex. It's very hard to really change this culture. Because it's not only implemented in systems, but also in thinking of the people, in the mindset. And besides this, and this is an advantage and a disadvantage, these banks are that complex because they offer lots of different products. And as a straightforward retail client, you only want access to three or four of these products. And they do have another on 396, also in their portfolio, which is, of course, something that makes them very powerful. But it's not something that you perceive as a benefit for you personally. So that they do have all those products, it's a benefit. And at the same time, it's also a big burden for banks. Another aspect is capital and liquidity. And you see this in the Corona crisis. So, SMEs now need more liquidity, so they need banks can offer this liquidity to them. As a start-up, you do not have the capital to offer billions of euros in small and medium loans to SMEs. I would say this is a big benefit of the big banks and very hard to overcome for start-ups.

I: And do you think that traditional banks can keep up with FinTechs? Like with their speed and their agility, mentality.

C3: I think it's nothing that you can heal within the traditional bank. I think that maybe in a few years, you will have a situation that traditional banks start to launch their own FinTech with a completely new environment, with completely new people, completely new systems, completely new processes, and then try to migrate the existing business to this new greenfield operation. Maybe they start to buy FinTechs. Unfortunately, now, of course, if you want to buy N26, you probably would face a situation that N26 is more costly than the entire Commerzbank in Germany. And so, it's getting really, really expensive. But I think this is the only way. Or you have to agree as a bank that you are losing direct contact with the client. Because FinTechs will continue to have much more of this direct access to the clients. And banks will only, let's say, act as the factory in the background that is offering, for example, the consumer loan. But the ones like CHECK24 in Germany. I think that CHECK24 is not active in Austria.

I: No, I don't think we have it. I haven't heard of it yet.

C3: It's nothing else than a comparison engine. And already now to a significant degree mortgages and consumer loans are getting sold via this CHECK24 platform. But you as a client, you do not care which bank is offering a loan to you, right? You need the money. So, this is, of course, a possibility for the future. But on the other hand, it's a major threat for the banks. Because when you have only a very limited margin-left for yourself and most of the margin you give to FinTechs that are then settling the place between the client and you. And if you think about players like PayPal and also Amazon. Amazon in the U.S. now started very aggressively to offer SME loans. This is, of course, very powerful if you have an online shop. With Amazon, when you sell your services, products, Amazon knows everything about you. They know exactly how much turnover you make. Last week, last month whatsoever. So, for them, it's also very easy then to calculate the credit risk. And then offer you a perfectly suitable SME loan. The bank will never be similar to Amazon. So, I think this will be the burden that has to be overcome by the banks in the next few years. And I do not see a chance to overcome this.

I: And what would you say are the advantages of FinTechs compared to banks? I mean, besides their speed and agility and also some other things that we already mentioned.

C3: Yeah, besides, innovation and agility. I think the most relevant thing is that FinTechs usually tend to focus much more on client needs than traditional banks, and I think this is the biggest advantage.

I: And do you believe that collaboration or competition between FinTechs and traditional banks is more beneficial?

C3: It's, of course, a big difference whether you talk about B2C or B2B business. If it’s B2C, there is no corporation thinkable. And N26 is a direct competitor to traditional banks because they attract the same clients with the same products. When it comes to B2B, then, of course, there are hundreds of FinTechs that are aiming to offer their service exactly to banks. And then, of course, it's a very interesting opportunity for both sides, for FinTech anyhow because if it's a B2B FinTech and they decided already that they want to sell their services to banks. And on the other hand, for banks, it might be interesting to have a kind of joint venture in terms of innovation and agility. If FinTechs are faster in offering a smart PSD2 solution, for example, nice APIs and stuff like this. When traditional banks can offer it, then, of course, it's a smart solution. Surprisingly, I would say the number of successful cooperation between FinTechs and banks, this list is not that long that one would probably expect. There are, of course, let's say ten to 20, which were very successful. For example, if it comes to video legitimation and KYC or if it comes to selling mortgages and consumer loans on the Internet. They have some very powerful FinTechs. And besides this, I would say, there's still a lot of room for FinTechs. But on the other hand, it's, of course, also a reason that the banks are usually that complex. And it's also very hard to find the right plug to do it right through a bank and then really successfully offer this new service to them. I think there will be a lot more to come.

I: And what would you say are the factors that are important for banks when they decide to collaborate with FinTechs? What are the implications of collaboration?

C3: Yeah. What is important? I think it's important that the FinTech is offering a service that is pretty easy to integrate into a bank architecture. So, for example, it's, of course, much easier if it is a service in the cloud, instead of integrating into the very complex I.T. infrastructure of a bank. On the other hand, I think it has to be a product or service where the benefits are truly significant for the bank. Or if it is a service that is at the end a nice to have, banks will not really ask for this service. So, I mean, again, this example with this web ID, KYC service. It is not a true innovation. Banks could have done this by themselves because they know the technology. They do have huge call centre organizations available. Why on earth do they not do it by themselves? Because in the end, the service level that is being offered by web ID is truly much advanced for a bank. And this is probably then step number three. It became clear that the clients were asking for more convenient solutions than going to the post office with your I.D., and then go back. And instead of this, simply sit on your kitchen chair and do it with your mobile phone. So, I think this is the third relevant thing.

I: And what would you say, which factors are essential for a successful collaboration between FinTechs and traditional banks?

C3: Yeah, the truly superior benefit of the solution that is being offered, the ease of integration, the degree of standardization of this solution. So, if it is a solution where you have to individualize it for every single bank where you want to offer it, then, of course, it's kind of very difficult and complex. I think these are the most relevant things to become successful.

I: And would you say that current laws in the financial sector are helping or hindering innovation?

C3: It's, of course, something that is hindering you. On the other hand, after the financial crisis, one can also say good luck that in some areas, banks are hindered. With regards to their innovation, because if you lose the innovative power in order to develop products that, for you as a client, are not really understandable in terms of profitability and risk. And good luck that regulator is putting much more attention on this. On the other hand, where regulation is really a terrible animal is that a lot of changes in bank investments that banks can do are nowadays dedicated to regulatory projects. So, in many banks, you have, I think, almost 50 per cent of changed bank budgets and dedicated to regulatory topics. So, on the flip side, this is, of course, money that is missing for, let's say, client-focused innovation.

I: And what would you say is the role of the government? Does it also support FinTech solutions?

C3: Well, I think that this is truly a very national topic. So, I would say I have a very good overview of Austria. But I think in Germany, the support of the governments is very, very limited. So FinTechs are complaining a lot that they do not get sufficient support. And also, now, with the Corona crisis, they are complaining that they do not get access to liquidity and credit loans. So, I think, yes, the government could do more. I think especially the German government is truly far away from digitalization, and this is a huge problem for our economy. So, I hope that maybe Corona is also tackling this, and if the German government wants to become more digital, then this would be the second step and also a big support for the FinTech industry. But nowadays it’s really poor.

I: And what would you say is the largest regulatory obstacle for FinTech companies in general?

C3: The single largest. Well, let's assume you want to become a bank, a new bank. To get a license lasts a minimum of twelve months, which is, of course, for a FinTech a very, very long time. So especially banking is truly highly regulated. So, you need a lot of know-how and a lot of money to enter the banking industry. And so, the entry barriers are pretty high. In other countries, especially Singapore and also the U.K. and Estonia, are three, which are quite well known for this, and they offer possibilities for much faster entry into the financial markets.

I: And in what way do regulatory issues impact the relationship between FinTech companies and traditional banks?

C3: Now, I think it is both. It is supporting and hindering. If you, for example, think about the PSD2 regulation. There were, of course, a lot of FinTechs that were jumping on this PSD2 train and now offering also services for other companies, for clients, and for banks. So, in this example, FinTechs were using the regulation in order to offer new services, new innovative services that the banks were not able to offer, at least not as fast as some of the other FinTechs. And I think that this is a battle that we will see in the future more and more. Because regulation really has the benefit that regulation is regulation, so it’s the same. It doesn't matter whether you are in the market for 100 years or whether you are a newcomer. And on the other hand, this is what I mentioned before, are the barriers to simply to start banking are pretty hard. Then it is, of course, hindering FinTechs. So, for example, now you have this, for example, solarisBank, where these FinTechs offer the banking platform as a service to other FinTechs to overcome this hurdle. So, one can also say that given the fact that regulation is sometimes pretty tough, it also generates a lot of innovative power where FinTechs think about ways to overcome these hurdles.

I: And how would you say does the current Corona crisis impact the financial sector? And what challenges are financial institutions facing?

C3: First of all, currently, banks are celebrating Corona because, of course, it will give them access to multibillion additional credit volumes. And this is, of course, an extra profit. And on the other hand, unfortunately, given the fact that, of course, you will have a lot of companies that will die in this crisis or after the crisis. You also have a lot of loan loss provisions that you have to build. So, it's both, and it’s generating extra business. And banks are very happy that they are now after ten years, where the public bashed them, now they are part of the solution. And they help SMEs to get liquidity and to survive this crisis. So, this is very beneficial. In the medium term, I think for banks, it will be very tough because there will be a lot of credit risk that they now have to take. And in the end, it will cost a lot of money. But it also demonstrates that in a crisis like this, the FinTechs will not help you as an economy. You really now need the traditional banks with the big credit books, the big liquidity. They all have the capital to really support the economy. I think this is a very interesting learning and bankers would say that they do it all the time. And I think that now also the entire government and all other players, the community or the society, will figure this out. Maybe this is something that is also bringing traditional banks a little bit back into the centre of society. And maybe it's kind of striking back. I mean, I'm very keen to see what will happen in the next two to three years.

I: Yeah, I'm also curious. And do you think FinTech firms could help traditional banks, or they need help themselves after the Corona crisis?

C3: Well, the problem always is, is that the corporate culture is the corporate culture. And the biggest hurdle for the banks is, they have a very traditional and hierarchical culture. And is it possible to change this by calling FinTech and ask them for support? I think that's not working. I mean, the people who are working in traditional banks are not foolish. So, in every single bank, you find people who understand the advantages of agile methodologies and find people who understand UX design. You find people who know the same about regulation, about products, about markets, things like this. The problem is not that they are too foolish to understand. The question is, how can you transfer this understanding and this learning into the true change in your culture? And after you have successfully benched or adopted the card, then you're able to transfer this into better products, better services. I admire BBVA in Spain for its really extraordinary focus on a drastic shift to a digital, to agility, and things like this. And they understood that it's not a question of doing a joint venture in a single little product area, but they really understood, you have to change your corporate culture. And I think in the end, a FinTech cannot help a traditional bank. The only possibility is that traditional banks try to save themselves by understanding it, but also aggressively adopting their culture. Not trying to do minor things here and there. So, I think the area is pretty widespread, and if you do kind of benchmarking, you'll find banks like BBVA or ING, who really did a lot of things. And you find a lot of traditional banks. Now mentioning one, for example, the German savings banks, the Austrian cooperative banks. I mean, there are a lot of traditional banks that will continue to do the same that they did many years ago. Learning from Kodak, this is, of course, not a good approach. And it will end up being completely successless. But a FinTech to support a traditional bank, not really, that’s my opinion.

I: Okay, thank you. So basically, we reached the end of the interview. Do you have anything else to add, or has everything been mentioned already?

C3: No, I think it's a very good questionnaire you have developed.

I: Thank you!

C3: I thought about similar topics two years ago, and I think it's very interesting to see how it is evolving. Five years ago, to now. I mean, if you would do the same in two or three years, then again, you will see a dramatic change. If you see from year over year. It's, of course, and it's not too much. I mean, what in the FinTech and traditional banking market is now different compared to May 2019? It's, of course, almost nothing. But if you now took a look back five years ago, it’s amazing how much has changed already.

I: It's really crazy. It's changing so fast. And now also with the digitalization, I think the development has just sped up a lot. That's really interesting. Okay, then thank you very much for your contribution!

C3: My pleasure. I wish you all the best for your thesis!

Expert interview 4	**FinTech A (F1)**
Date and Time	14th of May 2020 at 4.30 pm
Location	Telephone interview
Name of FinTech	baningo GmbH
Name of Interviewee	Maximilian Nedjelik
Role in FinTech	Co-founder, managing partner at baningo GmbH
Years of experience	Five years

I: Thank you for participating in the expert interview about FinTech and bank collaboration!

F1: You’re welcome!

I: How advanced do you believe is the FinTech industry in Central and Eastern Europe?

F1: Central and Eastern Europe, including Austria, or more the really Eastern European approach?

I: Also including Austria.

F1: Okay, in Austria, we started in 2015, and we recognize at that point in time, FinTech was an exception. I think most people didn't even know what FinTech is. And during the last couple of years, I recognized that there are many initiatives, and even a little FinTech scene in Austria, which I'm delighted that we came to that part. But still, I think that other countries, especially more Eastern European countries, are a bit further than we are in Austria. And also, if we look to, for example, Germany and especially the Nordics, they are far, far in front of us, here in Austria. Not just in terms of what companies are there, but also in terms of mindset, in terms of cooperation between corporates and FinTechs and FinTechs under each other.

I: And which products and client segments do you think are most disrupted by FinTech firms in the CEE region?

F1: I mean, as far as I recognized, it started with banking, with a payment industry in banking and FinTech. And now we also see in retail banking. There are a lot of FinTechs, for example, for savings and for investing platforms, Robo-advisors, etcetera, and more and more also SME banking that there are more initiatives and in terms of products and FinTechs offering services also for SME clients.

I: And in what way is baningo itself disrupting the financial services industry? What services does it offer?

F1: I was not our aim to disrupt. From the beginning, we saw ourselves as a partner, as a cooperation partner for the incumbent campaign and also perhaps for new companies, but mainly for banks and incumbents, because we recognize there is a pain point on the customer side. Customers have the problem that banking is old-fashioned and is inconvenient and complicated to get in touch with banks and especially to find good advisors and to approach them easily. And that is exactly where we jump in. We know now today that nine out of 10 people are researching online to their financial topics, but still, two-thirds want and need advice, personal advice, or want to be in touch with viewings. A bit, depending on how complicated the topic is they're researching. But, yeah, a lot of or the majority of people still want this human touch in banking. And it's kind of well, it's kind of clear because it's all about trust. And even though there are good data models and good algorithms already and still improving their algorithms and everything. But still, trust is a human thing. And I think that's the differentiator in the future. Now, banks can make their customers happy, and this human touch and this personal interaction will get more and more scarce in everything which is getting scarce, increases in value. So, I think we did the right, we did a good thing and the right thing to improve this customer relationship with our solution.

I: So, you said the human touch and interacting with the customer is very important. And what other factors are essential to operate successfully as a FinTech?

F1: There are a lot of factors. I think one of the main things you should bear in mind when you start a FinTech is to be as connectible as possible. So, to act independently from any IT system, the bank is offering. And ideally, be easily able to connect to existing IT systems of the incumbents if you can provide the digital end to end process for the customer. And this is one of the major things you should be able to as a FinTech. Then, of course, it helps a lot, that's what we experienced to have experience in banking, to know how banking works. To speak the language of the bankers somehow. And to. Yeah. To meet them on eye level. With the experience, it’s from both sides. It's a cultural aspect. So, the FinTechs have to meet the banks on eye-level, and also the other way around.

I: And how would you describe the business model of baningo and the cooperations it has?

F1: Our mean product, our B2B product, is a classical SaaS solution. So it's a white-label SaaS, so we have from, kind of a 60, 70 per cent and fixed solution, which we can customize to 30, 40 per cent for the bank and the business models that we charge for this customizing as a one-time investment for the bank. And then we run this service for the bank. So, we have a monthly subscription fee, depending on how many advisor profiles, which modules they are using from our solution, and we do the hosting, we do the maintenance. We do the support. We update everything for the bank. So, they don't have to take care of it. And for this, we charge a monthly subscription.

I: And what would you say are the advantages and disadvantages, if you compare FinTechs to traditional banks?

F1: I mean, of course, we as the FinTechs and as the start-ups, we have the main advantages, that we, most of the time, are small teams, we are dynamic people. We can easily adopt new circumstances. On the other hand, it's a problem that we have to gain the trust of the customers. We have to do that, and really customer-focused and customer-centric solutions. Everything we do, we try to do it through the eyes or with the shoes of the customer. And I think how we are able to build trust and how we are able to get new clients. Banks, on the other side, they already gained this is trust over the last decades. Everybody knows the big bank brands and even after the financial crisis. Still, the trustworthiness of their brands is a lot higher than of a new FinTech brand no one knows. And you see that, for example, also with the big challenger banks like N26 or Revolut. Most of the people I know using these services. They use it as a second bank account. The main bank account they still have with their traditional banks. So they are if they need to be this trust and this trustworthy factor that incumbents already have.

I: And so, would you say that collaboration with a bank is more beneficial than competition?

F1: No, I wouldn't say that. It's just the approach we took because we. Yeah, we saw the pain points on the customer side and our chance here in this niche, more or less, but I wouldn't say it's more beneficial. I see that objective. So, I think there are pros and cons to both models. I just think that it's much more effort to fight banks and to be in a competitive approach with banks than to enable them to cooperate with them and enable them to help them survive in the future.

I: And I saw that baningo is currently in collaboration with Sparkassen. Could you tell me more about this? What factors made baningo decide to collaborate?

F1: I mean, it was perhaps kind of luck in the beginning, because we were at a conference and we met someone who was in touch with Hamburger Sparkasse, the biggest German Sparkasse, and the biggest German regional bank. And then they heard about what we are doing and told us that at Hamburger Sparkasse was this innovation workshop. They wanted to assure their customers the possibility to decide on their own who shall be the right fit advisor for them. So it was kind of a similar approach of what we had, and then it was easy to reach out to them and say, look, we heard that you were thinking about that and we have a solution for that, and that was a good fit, even though it took us quite a while to come to a contract with them. But yes, that was perhaps kind of luck. And you know, if you have one big partner, and we did everything we could to make this partner happy, especially as we knew that it is a very bright, shining, Sparkasse in the Sparkassen world. And so, we did everything we could to make them happy and to learn together with them how we have to adapt our solution and how we have to develop further our solutions with the feedback of this big partner. And so, it was. We were able to get more and more Sparkassen to be interested in our solution and have more and more cooperation with other Sparkassen in Germany.

I: Is baningo also planning to cooperate with other banks than Sparkassen in the future?

F1: Sure. We already have other banking partners. We have in Austria, BAWAG we have in Austria Volksbank, a regional Volksbank, we have even a bank in Switzerland, which we're talking about and already have a proof of concept running with them. So, of course, we do that, and we plan that. At the moment, our focus on Sparkassen is also through cooperation with the Sparkassen IT subsidiary. So, through these cooperations, it is much easier for our German Sparkassen to have our solution and to get our solution in place because they do all the legal, compliance, and IT security checks, and they do that once with us. They've already a contract with all the Sparkassen. And now, it's easy for them to get our solution through this cooperation with this IT company in Sparkassen, which is a big milestone for us because this will shorten the time-to-market for us a lot.

I: Yeah, I can imagine. And what factors are important in general for you when you decide to collaborate with a bank?

F1: I think most important is that they see the pain points we are solving. That they have this cultural attitude. So, wanting to be innovative, wanting to serve their customers' needs, wanting to take another road. Not always concerning about their internal segmentation process, their internal procedures, et cetera, but opening their eyes for the customer. And. Yes, if this is provided, then we have a good chance to put our solution in place, and as we more and more learn and got the existing IT systems, it's improving a lot and makes it a lot easier for us in the future to come to a cooperation with a bank.

I: And what would you say are the challenges of collaboration with banks?

F1: Where should I start? I mean, it's another world somehow. And after five years as a start-up entrepreneur, I am sometimes not used to this kind of thinking, of this corporate thinking anymore. And I think that the biggest challenge is, of course, this kind of sticking to procedures, sticking to bureaucracy. To not being encouraged enough to make decisions. Everyone wants to align everything with everyone so that no one can blame him or her. And. So the time-to-time constraints are a very big issue. Because you know, if you want to cooperate with a big bank like for our product and there are so many people involved. There is sales involved. There is marketing involved, legal, compliance, workers council. And I don't know how many departments. And yeah, if you're not used to dealing with this kind of complexity anymore, then you get lost easily.

I: I can imagine.

F1: Another challenge that is getting bigger and bigger at the moment is also the budget. Because many banks have to reduce their monthly cost bases. They have to scale down, they have to close branches. Sometimes it's good for us because we can say, look, if your closing branches, then make your advisors online, online accessible, then this would work. But if they're, if it's just about cost-cutting, then you don’t have to come with a new project which costs money.

I: Yeah, that makes sense. And which factors do you think lead to a successful collaboration between FinTechs and traditional banks?

F1: I think if they meet each other on eye-level, there is the cultural ability in the bank, the willingness, and the cultural ability to work together with start-ups and FinTechs, that's a thing which has to be in the organizational culture fully integrated. And what are other success factors? I think if you offer them the chance to have a short time-to-market, to start perhaps with a kind of MVP or any proof of concept approach so that they don't have the feeling that they have to invest a lot of money for not knowing what they get and if it works. So, if you peu à peu and start easily and then have step two and step three, then I think the chance to get to a contract is much higher. Or sometimes, it's not our business model, but if you as a FinTech or start-up can offer your service for free for like this Freemium concept, you know, here is our solution test it for three months. And if it works out fine, then we can talk about how much everything costs. Then it's an easy sale.

I: And do you think that the current laws in the financial sector are helping or hindering innovation in financial institutions in the CEE region?

F1: Actually, we are not too concerned about the legal situation because it's not touching us too much. But I just recognized that the last couple of years, there was always a huge budget effort for meeting these regulations to be compliant. So, it was more the thing that they already spent so much of their budget for being compliant with MIFID2, to comply with PSD2. And all these other things that there was not much money left for innovative projects. Cost-cutting is everywhere a topic in the banks. So, yeah, it was pretty hard to come up with something new and to get them opening their wallets for innovative solutions. But I think it's getting better because all these Basel regulations and MIFID2 and PSD2 are already in place at the moment. And, yeah, now it's more the Corona thing, which we don't know yet how much the impact of this crisis will be and how the banks, how much money the banks have to reserve for loans which are not getting paid well, etcetera.

I: And what would you say is the role of the government? Does it also support FinTech companies?

F1: In Austria, I didn’t experience a lot of support. It's rather initiatives by FinTech entrepreneurs and start-up entrepreneurs and their network they are creating. But there are some things like the FMA, “Finanzmarktaufsicht.” They started to be available for questions for FinTechs, etcetera, so there are some initiatives, but I think what we would need in Austria is more the ecosystem besides the business angel and the business angel initiatives. But for start-ups, if you go in the direction of Series A, to have an ecosystem of venture capital providers of, yeah, more access to venture capital money. There we are really weak in Austria, and I think that's also the reason why many start-ups, Austrian founders or start-ups, which started in Austria, quickly go to another country. It’s kind, I won’t say easy, but it's kind of possible to get your seat round funded. But after that, it gets pretty hard in Austria.

I: So, would you say that's one of the regulatory obstacles for FinTech companies?

F1: I don't think it's a regulatory obstacle. Yeah. As I said, we are not too concerned about regulations because it's not affecting us. But it's rather the financing and funding thing, which is an obstacle, to stay in Austria.

I: Okay. And now, I would like to talk about the Corona crisis. How do you think it impacts the financial sector or, in particular, the FinTech industry?

F1: I mean, it already has a huge impact because many FinTechs work together with banks. And in the last couple of months, the banks were in kind of a panic mode. Because they didn't know how well their customers will be able to pay back their loans. They were not prepared for remote work. They were not prepared for the load of customers having questions to their loans and wanting to profit from this public support, etcetera, but I think meanwhile, they came from panic mode to crisis mode. They tried to organize themselves better. And we recognize that, now again, it's possible to talk with them about new projects. But. Yeah, I think the long-term impact is not yet foreseeable.

I: And do you think FinTech firms can help traditional banks to get back on track after the crisis? How could they do this?

F1: I mean, perhaps there are some FinTech firms which are able to help banks to get back on track. Like, for example, we are. Because we can show them how they can easily be in touch with their customers online, but when it's just about the product, I don't know if FinTechs can be the solution provider for banks. I mean, if there are other FinTech companies which are in cooperation with banks, helping them for better processes, helping them for other things besides banking products, then I think this can be an advantage for a bank. But I don't know too many actually here in Austria.

I: Okay. Basically, we reached the end of the questions. Thank you very much!

F1: Yeah, you’re welcome.

I: Is there anything else you would like to add, or you think it's important that should still be mentioned?

F1: Perhaps, I don't know if I was clear enough to stress out the point that I am quite sure that banks have to start thinking about the customer much more. And if they are not willing or able to change their mindset on behalf of their customers but stick to their old procedures and processes and also this kind of culture, which I see in many banks. So, there were always banks, and there will always be banks. I think they're really affected by all this new development, and I mean, it was, I think, Bill Gates, who said, “Banking is important, but banks are not.”

I: Yeah, exactly.

F1: This can be the future. If they're not willing and able to adapt to this new mindset on behalf of their customers. And doing things the right way for the customers, then I'm not sure how many of them will survive.

I: That's very uncertain. So, we'll see.

F1: Also, this thing about the crisis. Perhaps there will be a new wave of consolidation.

I: Yeah. Let's see how it turns out.

F1: Mhm.

I: Thank you!

F1: Yeah, you’re welcome!

Expert interview 5	**FinTech B (F2)**
Date and Time	19th of May 2020 at 10 am
Location	Microsoft Teams
Name of FinTech	George Labs
Name of Interviewee	Mauri Poletto
Role in FinTech	Managing Director
Years of experience	Eight years

I: Thank you for participating in the expert interview! How advanced do you believe is the FinTech industry in Central and Eastern Europe?

F2: So, on the business side, the proposition is good and healthy. It’s fine. There are some good start-ups around. They have good ideas. They have nice models. Where we are lacking is the scale. The scale within the region or the scale, in general, is a problem mainly related to missing capital. So, the amount of capital, if you are a start-up in Vienna or if you’re a start-up in Prague or you’re a start-up in Bratislava or Bucharest, capital is really limited. And therefore, what we see right now is that many of these FinTechs are coming up with decent and good propositions for a very, very, very small area, let's say Romania or the Czech Republic. But then if you ask them to scale across the region or even to scale larger, they have a problem because capital is missing. So that's pretty much the status. Technology-wise it’s good. Some of these ideas are pretty much in line with the same idea you can get everywhere else, like London and Germany. So that’s pretty advanced. What is missing is big capital and capacity to scale. That's one of our problems at the moment because we are, you know, we are powering our group solutions. So, our software, our platform is serving customers in six countries in Central and Eastern Europe. And when we look for a partner, when we negotiate a partner for us, if that partner has intentions to offer their services in six countries, it's a key because otherwise, I need to ask for the same service. I need to have a partner in the Czech Republic and a partner in Slovakia, and a partner in Romania. And that's complicated. You need to integrate with many partners. If I were the one that serves different countries in the region, this would happen a lot. That is not so easy to finance.

I: And which products and client segments would you say are most disrupted by FinTech firms in the CEE region?

F2: Well, at the moment, the FX currency exchange. So basically, for all the countries that don't have the euro like the Czech Republic and Romania, Bulgaria, I think, in those countries, a FinTech that offers convenient currency conversion like TransferWise, Revolut and stuff like this, they're really doing a good job. Revolut is rather popular in Romania. Especially because of this convenience on the conversion rates. Consumer loans for some of the countries where there is more consumer loan, up to, let's say, 5000 euros, 6000 euros for countries redundant for cash. Normally large banks do not really cover this segment of the market. They, like banks, tend to avoid those cash loans and consumer loans. Therefore, there is space for start-ups who want to risk a bit more and give this money around. We are very cautious as a bank on that topic because we want to make sure. We are willing to give money, and we give a lot of cash loans. But we try to make sure that people are using this money so they can afford to buy what they want to buy, right? We like to avoid bringing people in this loop of getting financing to buy things they cannot afford anyways. Because in the long-term, we are looking at the customer lifecycle long-term. This could not be very convenient for them. So, yeah, these are the two areas. There was a peak on current accounts, so people offering current accounts for free. But at the moment, there is no big pick up on those propositions. I'm talking about now. I'm talking about FinTech in the field of retail banking, right? And business banking is a bit different. There are some SME solutions around which are very popular or some specific products or some specific larger businesses. These are working a bit better. But within the retail banking is mainly the FX exchange, so the currency exchange and some consumer loan are what runs the best.

I: And in what way would you say that George Labs is disrupting the financial services industry? Probably it's not the right word to say disrupt here.

F2: Yeah. We have not been built in opposition to traditional banks. We are powered by Erste Group, and our mission is basically to help people. And we are serving only customers within our financial institution across the region. The main aim for people who are currently served by our institutions is to manage their financial life online properly. So, we don't build this in competition or with the idea of disrupting someone else. We just have, you know, we have 15 million customers across the region, and they need to be taken by the hand and carry forward into this digital transformation we are facing right now. And you can only do this if you have really, a really advanced and sophisticated digital platform. And so, this is basically our mission. We provide access to their account, any kind of account, and we provide access to any kind of device and digital channel that they have. We empower them to manage their product digitally. So, we try to give them any activities that they need to do on their financial services or financial products. We try to make it possible that they do it by themselves on their phone, on their laptop. Doesn't matter. We try to improve their financial life by really providing tools and advice that makes them understand their financial situation better and make better decisions moving forward. This is kind of our mission. It’s not really a trend. I mean, it's a trend to talk to other banks or competitors around the region because we're totally convinced if you do a good job, the customer will stay with us. So that's retention. But also, if you do a good job in the positioning where we stand, customers will move to us. I think having the maturity of the financial, of your digital channel is, and the experience out of it is a decisive factor when you decide to change a bank or to set up a bank relationship. And so, disruption is not a priority in our head. But we know that if we do our job right, we are happy in the group and we are attracting new customers definitely.

I: And how would you describe the business model of George Labs?

F2: Well, our business model is very simple. We are providing Erste Group and all its subsidiaries the most advanced digital banking experience we can do. And we tried to do this more smartly, in a most convenient way. And for that, we are building, or let's say, we are powering up in a pillar of our best digital business model, which is the digital transformation of the business from a brick and mortar business, primarily, into a combination of brick and mortar and digital. So that’s pretty much our model within the group. We are responsible, and we try to power this on the whole group proposition.

I: And what factors would you say are important to operate successfully daily?

F2: Speed, skills, and passion. I would say this is basically what is really necessary. Banking is a rather complicated topic, and it's also boring. So, finding people approaching those challenges on banking with passion is really complicated. But pretty much like we are, we're looking for people. And we are attracting or collecting, hiring people, which has these three characteristics. They're willing to work on a certain speed and iteratively. They have very advanced skills. And they do this with passion. Yeah. So, this, I would say, and then everything can be done. If you have these three things, I think we're moving. We're moving forward.

I: And what would you say are the advantages and disadvantages of FinTechs over traditional banks?

F2: That's exactly the point. Skills again. Speed, skills, and passion. So, you know, traditional banks tend to be slow. Therefore, projects last very long, and they normally do not iterate on it. Very often, skills in the field of digital experience are missing. They have people. They build stuff. It's very focused on a more traditional business model or more analogue and process-oriented. And so, the idea of building hybrid or let's say digital-oriented experiences. These are skills that are kind of missing in many areas of a large bank and very often what we do. What large banks are doing is that they tend to do business as usual. They are built around the idea of maintaining a service instead of moving forward. So, the passion to transform your business or transform your organization or transform your industry forward is missing. So, again, I would say the same as before. Speed, scale, and passion are the main differentiators for FinTechs.

I: And on the other hand, for traditional banks, what do you think are their advantages and disadvantages?

F2: Customers. Mainly customers. You see, retail banking is complicated. Many people think that it’s easy. You pull out a debit card or a wallet and a current account, and you're done. In reality, retail banking is really complicated. If you want to have a retail banking business in certain countries and you really want to gain a mass-market and millions of customers, you need to take in a variety of cases. You have retirees, you have young people, and you have adults, you have families, you have singles, you have divorced people. You have shared accounts. That business is complex. You have poor people, people who are in debt, rich people. And so that complexity is something you need to take over. And most of these propositions from FinTechs are not really taking over that kind of view. So, one of the benefits or one of the advantages of traditional banks is that they have customers. And they know how to deal with complexity. The legacy is part of that story. So, of course, the customer base they bring in is a legacy customer base, but it also brings a certain richness. They have trust from the majority of people having banking with a company which is present physically in your city, which is present in the social environment, which has been there for the last hundred years, and it probably will be there for the next 50 years. It makes a difference. So, trust is the other big, big factor here. And the other aspect which is really an advantage for a large company is that people feel safe to deal with branches. So, even if you're really focusing on digital, there are some moments in any customer lifecycle that you want to talk with someone, and you don't want to talk with a person in a call centre that is sitting in a place you have no idea where this place is. But you want to walk into a place, and you want to talk with someone who is basically having an empathic relationship with you. That's why, in this case, our branch's network place plays a role. And yeah, that is the other advantage. And so, I would say customers, existing customers. Then the second point is trust. And the third point is physical distribution, I would say.

I: And what do you think are the weakest points of traditional banks?

F2: Legacy, business legacy, especially in the digital field. IT and business legacy are the weakest points. This is coming back to what I told you before. Speed, right? This is what is impacting the speed so much. So, banks are not slow because they are stupid, or they're lazy. They are slow because the system they build over the last 30, 40 years are complicated. And that's pretty normal. Even a company like you would expect to be extremely agile and on top of innovation, like PayPal. I know many people working in PayPal. They have a huge pile of legacy as well as part of their software. It takes months just to touch a little detail, right? So that's a pretty natural thing. If you, you know, when you build something from scratch, the first five, six years, it's fast. It's easy. The complexity is reduced. But then more the business goes on and more you implement. And more as you do a variation and work on it. More you're creating your own legacy. Now banks started 30 years ago, 40 years ago, doing digital banking. And now they have a kind of legacy in the back. That is basically preventing them from being fast. And that's the bigger part. Legacy and IT is probably in business. And IT is probably one of the trickier parts of that business. I would not say. Let me put it that way. On one side is the legacy. So, your question is, what are the weakest points of traditional banks? On one side is definitely legacy and business legacy. On the other side are customers. It's the same as the opportunities. So, customers are on one side an opportunity. But on the other side, it's also, I wouldn't call it a weak point, but it's a tricky part because once you have millions of customers, you cannot be as agile as if you have a hundred thousand customers. You know, if you have a hundred thousand customers, you can try something out. And if something is going wrong, you're going to get. I don't know, 300 calls. If you have millions of customers and you try something out, and something has gone wrong, you're going to have thousands of calls in the call centre. You will confuse people. So, you have a different level. The customer puts you on a different level of responsibility. Therefore, you are very cautious about what do you do. So that's also the other weakest part of a traditional bank that as they have such a large customer base, they really need to be careful when they do something. So that complexity must be part of the game. And also, let me explain this concept a bit more appropriate. We have a certain responsibility, and therefore, everything we do is properly watched and properly valued by our customer base. And so, we cannot really risk losing a lot of the reputation and the trust we have built over the years just because we want to try something. So, the trick is to find the right balance between being able to very quickly try new things without really putting at harm or adding a potential issue with the trust we have built over the last years. That's why I would say that's the case.

I: Do you think traditional banks can keep up with innovative FinTech firms?

F2: Yeah. And the answer is yes. They do already. I mean, I don't know how long you're following the FinTech, but I'm following the FinTech since the very beginning, 2010. And actually, it's funny that at the beginning it was like, okay, those FinTechs will kill the banks. And then the story didn’t really unfold the way they wanted. And now it's more like cooperating. Still, I think the banks are catching up, and they're doing a good job. Not only us. Most of the large banks are doing a good job in digitalization. So, yes, traditional banks are keeping up. Maybe not as fast, but they're keeping up very much. Having proper digital banking on your phone right now is really something that most of the banks are able to offer.

I: And do you believe that collaboration or competition with traditional banks is more beneficial for FinTech companies? What factors does this depend on?

F2: Well, of course, collaboration is beneficial for FinTech companies. If you don't make money disrupting the market yourself, then you need to collaborate. Otherwise, you're not able to survive. So, yes, it does. What factors it depends on. Well, if you're not able to attract customers yourself, then you need to cooperate. You need to offer your services to someone who has the customers already, and these are the traditional banks. Some FinTechs quickly understand that, especially all FinTechs that started with the idea of aggregation and connections between the banks. They’re now moving forward to provide financial services to banks instead of trying to aggregate customers on their own interfaces. So, we see a shift in this at the moment. And what factors does it depend on? Well, it depends on their business model. If you have a business model that really targets to disrupt a product from a bank, it's very likely that the banks will not integrate you. If you’re a FinTech and you offer a service that is planning to enhance the proposition of the banks, then the banks will be more than happy to integrate it. So, we have a strategy, and we know exactly which Fintechs we are interested in and which FinTech we try to avoid. Not because they are particularly bad, but simply because they have a proposition that is in direct competition with our own proposition. So, we try to avoid integrating those.

I: And for what reasons was George Labs established?

F2: Officially, we have been established as an R&D unit. The mission at that time or the ambition from the board, which established us, who financed us in the beginning, was transforming the bank. So, starting a journey that kind of transformed the bank and the way we did the digital experiences. Already at that time, the board already had a CEO, who had a very clear view that the bank industry was going through a very strong transformation because of digitalization. And so, he wanted to establish a unit, who could start experimenting on some digital propositions, but then end up offering a new way of working, a new way of building software, a new way of building interaction with customers built around a digital experience. And yes, this was the purpose and the mission at that time.

I: And what are the implications of collaborations? Does George Labs profit from Erste Group somehow through partnership? For example, can it use the infrastructure from Erste Group?

F2: No, we are not really a unit for profit. We are basically offering a service for the group. And we are getting paid for that. So, we are not built for profit. And we are basically offering a service. We have contracts within the group. We are offering that service throughout the group, and for that service, we are getting paid. With that budget, we are able to grow, and we are able to build the service better.

I: And does George Labs also offer services to other financial institutions, or is it planning to do that in the future?

F2: At the moment, we are only serving financial institutions within Erste Group. We're currently starting. We are currently in the process of setting up a project to offer additional services also to some strategic partners of Erste Group. But this is just the beginning at this point in time. So today, 2020, we have been focusing in the last five years from 2015 until today on rolling out our platform across the group. So, throughout all the countries of the group. This was our mission. With 2020 we're introducing, we are finalizing our journey where we are launching in Hungary, and we're launching in Croatia and then excluding Serbia, which is basically one of our countries where they do some IT migration. So, they have been put on the side a bit. But we are with 2020. Our platform is present across the whole group in six countries. This was our mission up to today. Probably will still be our mission in 2020, and we will see how it's going to settle in 2021. But already now we are working on the next step. And the next step is also like our strategic partners to do digital, to do digital experiences. And at the moment, there is no plan to offer our services to other financial institutions.

I: And what factors are important, in general, if you collaborate with a traditional bank as a FinTech?

F2: Well, for us, the collaboration with Erste Group was, let's say, was a big part of the group strategy. So, there was a long-term strategy done by the board, and we were one pillar of that strategy. One factor for a successful collaboration is again. We brought into Erste Group skills that before did not exist or skills that before had been outsourced to external. And I think this gave us the chance to gain a certain reputation within the group, so people in the group are happy to use our services. I think, again, it’s skills mainly and passion and a new way of working. So, we have been lucky to have been given the freedom to set up our unit and being able to work within our company in a different way that the bank was working. And even though our services are getting integrated within the bank. So, we are working with banks all the time. But we have given the freedom to define also a new way of working. And what we have done from day one was really to together with our staff, finding a new way of operating a digital service, how to run a digital platform. And the result of that experience is that many of the financial organizations are currently adapting to the way we are set up. So, we were agile from the very beginning. We had squads. We give squads the capability to be independent and all those things which were not really the way the bank worked. Now they are becoming standards in the bank as well. So, we are within Erste Group, approximately 47000 employees. We're just a unit of 300 people. But we have a huge influence on the way this group is currently transforming.

I: And which factors do you think lead to a successful collaboration between a FinTech and a traditional bank?

F2: Clear separation of the mission. What I mean is, it has to be clear, how do I contribute and where I contribute? So, if you have unclarity there and the FinTech could potentially steal business from the bank or the other way around, or it's not clear what's the relationship, I think then things become very, very blurry and put everything at risk. So, clarity and responsibility, I think, is what is one of the factors for success. I cooperate with you because I know you're going to provide me with that service, and I trust in your service, and I help you to scale up your service, but the purpose of that service has to be very clear.

I: And what would you say are the challenges if you collaborate?

F2: The challenge is to understand a FinTech. Now I'm talking about, I'm speaking like a digital bank platform. And I'm telling you what the challenges are when we are engaging with the FinTech that we want to integrate. The challenge there is to have the capacity to understand what is true and what is not true. I explain myself. In most of these PowerPoint presentations from a FinTech, it looks like everything is super easy, and everything is working perfectly, and very often, even if they have a first iteration in the markets, they can show you real numbers that things go nice. But, you know, when you have 30000 customers, probably you have very similar customers. You are tracking a very similar customer base. And with 30000, you may have good feedback. The real challenge is to figure out if that proposition also fits 13 million customers or 30 million customers. That's really the challenge. Very often, it's not the case. Very often, challenger banks have, or start-up FinTechs have a very good proposition for a very narrow and a very small customer base. Maybe your friends or digital affine like you. But you know, in a bank with 15 million, this project is going to be a failure. It's a commercial rate of below one per cent. So to have success, you need to make sure that at least 30 per cent of your customers, some millions, can use it, and so the capacity understanding is that proposition, will that proposition fulfil the need of a larger customer base. That's complicated because, on PowerPoint or small pilot, everything looks great, and everything works. And then you take this algorithm, or you take this feature, or you take this functionality or proposition, and you deploy it into the real, into the real market. And then you figure out what really works and if it really works on the mass market. And so that's a bit the trick. You need to be able to smell how much of that small proposition can attract the mass market.

I: And would you say that current laws for the financial sector are helping or hindering innovation in financial institutions?

F2: Well, if you're referring to all this PSD2 and payments, well, if you're referring to this law. I'm very critical with PSD2, I'm following it from the very beginning, and I'm critical in a sense that I think it was. It could have been done much, much better, much sharper. But we'll see, it's still too early to say if that will boost, that will boost FinTech. This was the ambition, especially the part of PSD2 that allows aggregation of customers or account information service and so on. The ambition was really to open the market. What we see right now is that everyone is coming up with aggregation services and is really struggling, getting traction on markets. So, my prediction is for the first wave for the next couple of years. I think most of the banks who already have customers on their platform they will lose those aggregation services to offer discount service to the existing customers. If that will, if that will open space for new players, that only offer aggregation without being banks, you know, this was the big ambition. With PSD2, I can open a website, or I can open a platform. I don't need to have a banking license, but I connect with you through your bank, and you can use my layer to manage your finances. Well, that's too early to say. At the moment, it doesn't sound that this is going to be the main trend also, because, you know, as I said before, the financial level of a family. Let's take a family, standard, or even a couple. It's complicated. It's a bit more than your current account. There are credit cards. There is financing. There are mortgages. There is savings. All those products are not covered with PSD2 at the moment, and therefore really creating a platform that serves you is complicated. Yeah, I think it's too early to say if this will unfold. What we see right now is not as great as it was. What we see right now is that it's not as great as many people tried to picture it in the beginning. It's a bit more complicated. It will take a bit of time if we have a conspiracy. Probably not now, but in a couple of years. Yes.

I: And what would you say is the role of the government? Does it support FinTech companies?

F2: They are. There are funds and activities pretty much in every country. So, there is. If this is enough, I can’t tell you. You can talk with some private investors. But there are activities. I can't really tell you much. Definitely, there is not enough money. But from the public sector, there is even not a lot of money in other countries like the UK and Germany. Mostly the difference is that they are private, big private money, which is something we don't see here in our region.

I: And what are the largest regulatory obstacles for FinTech companies?

F2: Well, let me put it that way, I think, now, if you're looking for. It depends. If you're looking for a challenger, for a FinTech company who tries to build a retail banking proposition like Monzo, Revolut, N26, and all the other guys, right? For them, the bigger challenge is compliance and legal. You know, it's easy to be compliant when you have a million customers. It’s getting tricky when you start having five million customers also because if you make it super easy to become a customer, which is what they did, then you get into your customer base, you get anything, right? The people just try. They don't care. People are trying to fool you. The people are trying to make frauds. Everything comes in there. The easier you make it to get in, the more mess you get in. And now, when you have a limited number of customers, you can handle it, and you're not really in the spotlight. When you start getting millions of customers, then you’re in the spotlight, then you need to be very precise about how you deal with that stuff. So, I would say on the journey of scaling two million customers, business, compliance, and legal and anti-money laundering, and all this stuff is going to become tricky. Because on one side, you always promise your customers at the beginning to get so many and so quickly. It’s easy, super easy. Two clicks and you're in. All is done. Easy, easy, easy. And then you become relevant. And then you get the spotlight and regulators, and then you get the license. And then you need to apply for things that force you not to say, “Easy, easy, easy.” But you say, “Okay, yeah, that transaction sounds strange. I'm going to block it.” You know, it's complicated. And so, I would say this is the biggest part for FinTechs that want to offer themselves. That try to build retail banking. For the other FinTechs that offer services like aggregation services, I think there are no big burdens. They do a good job. I think it will be easier to run a good business.

I: And how does the Corona crisis impact the financial sector at the moment, particularly the FinTech industry?

F2: Well, as far as I know, the valuation is going really down at the moment. I was reading last week that Monzo, last round of investment on Monzo, has reduced the value of that company 50 per cent or something. So, yeah, there is less liquidity around. So, people will focus on a few instead of many. That's what we see right now. So even in the UK, which is the country which has the best capital, it's the best-capitalized market for that. And there is a lot of private investors, and I think that the money is going down a bit. That's a negative aspect. The positive aspect in general in the market is that people. So, Corona kind of forced people to speed up their transformation to a digital experience. So, if before Corona, I would say, to get 70 per cent of my customer base and join digital and doing digital meetings and doing a video call with your advisor and discussing your finances, not in person, but via a device and stuff like this. It will take another three to four years. And Corona, I think, can speed up that process dramatically because people are being forced to do it. And now, many of them think this is not as complicated as they always thought. So that's a speedup. Will the FinTech leverage on that? I think everyone will leverage on that, even the large banks. So, I don't think that this will necessarily help FinTechs. It will, in general, help the industry and will let everyone ready to accept the challenge of getting familiar with digital engagement. So, yeah, I think that's the main impact of Corona.

I: And how is George Labs dealing with the current situation?

F2: We are pretty much operating as we operated before. Yes, we have the full team working from home at the moment. We allow people to go to the office. If they want, but with clear rules in order to avoid. So, there are some guidelines in our headquarters that allow people to go back to the office. But some clear rules in order to keep clear tracking if someone gets infected. But overall, the great majority of our team is still working from home. So, we are operating as we have before, so far it is not a big difference.

I: And how could FinTech firms help traditional banks to get back on track after the crisis?

F2: Well, let me put it that way. You know, the big part of the balance sheet or in general of the success, the financial success of a bank is the healthiness of the economy where the bank is operating. So, if the economy is operating in the region or in a country and the economy of that country is going down for whatever reason, then naturally your bank, no matter if you're doing a good job or bad job, will decline. We are bounded to the healthiness of the economy of our region. That's what most of the systemic banks, and we are one of those impacted. So, on that side, we are doing really a lot to help businesses stay in business. We are applying all the rules the regulator asks us to apply, the moratorium for the loans, we are helping our customers to get liquidity in order to be able to survive this time. It's a hard time for the economy, in all our regions, in all our countries. And because of that, it will be naturally our time for us as well. But we are very strong in helping customers. What we noticed is that we have to be careful that people do not adapt. So, there will be a lot of liquidity put on, so by the state, put on the economy. So, we need to make sure that people really understand how to make the best use of that liquidity. I think this is going to be our mission for the next years.

I: Okay, basically, we reached the end of the interview. Is there anything else you would like to add or that hasn't been mentioned before?

F2: No, I'm fine.

I: Okay, perfect. Thank you very much!

F2: Thank you!

Expert interview 6	**FinTech C (F3)**
Date and Time	26th of June 2020 at 2 pm
Location	Zoom
Name of FinTech	Paysafe

Name of Interviewee	Robert Albrecht
Role in FinTech	Head of Paysafecash Product Line at Paysafe Group
Years of experience	Two years at Paysafe

I: Thank you for participating in the expert interview about FinTech and bank collaboration! How advanced do you believe is the FinTech industry in Central and Eastern Europe?

F3: I would say it's very diverse and advanced. So just recently, today, I saw an overview of all FinTechs in Poland, for example, that were active there. And, yeah, it's quite amazing because sometimes I feel it goes into areas where we in Western Europe, or particularly in Austria, we haven't even thought about innovation based on FinTech ideas to go into such business models such as SkyCash, Twisto, or Monese. There is an app where you have a central place to buy parking tickets as well as train tickets. You have the payment option called Twisto, I don't know if you are aware of that, but it collects invoices over a month. And at the end of the month, it's like a credit card without having a credit card. So, you can shop in different stores, online stores that accept Twisto, and they just collect your invoices. And once a month, you are asked to pay the full amount. And it just goes on and on into lending, peer-to-peer money remittance services. So, I would say it is quite advanced in these countries in Central and Eastern Europe. Sometimes even more than in Austria or Western Europe.

I: And which products and client segments do you think are most disrupted by FinTech firms in the CEE region?

F3: So, when you say products and client segments, do you refer to companies who are now disrupted, or is it really what customer segments?

I: Yeah, customer segments.

F3: So, I would say, I think FinTechs, in a way, when they are based on or when they're offering is B2C offerings, so targeting customers. It is really, as far as I can see, it targets predominantly people wanting to be independent of traditional ways of payment or financing. In particular, in the area of microcredit, lending, car loans. There are a lot of FinTechs coming up, but also personal financing for alternative bank accounts. If you take Monese, Monese is a UK based FinTech. Also, very strong in Eastern and Central Eastern Europe, which targets, particularly people who have challenges to get into the traditional banking ecosystem for whatever reason, bad credit score or immigration status so they can improve the permanent address and they really fill in that niche. And so, I think here FinTechs who can define a very clear niche and customer needs, do a very good job.

I: And in what way is Paysafe disrupting the financial industry? So, what services is it offering?

F3: And so we, in a sense, to what I was just saying about where FinTechs are successful, where a lot of them are circumventing or bypassing the traditional banking infrastructure, so where just traditional banks as we know it would not be able to do the services as it's expected or convenient for the customer. And we also help these FinTechs actually to circumvent banking infrastructure. Because what Paysafe does is we provide the ability to use physical money, cash for online businesses. So, historically, you were only able to go to a bank branch and make a deposit there. Coming to the bank with cash and deposit it on my bank account in a bank. We actually offer a very decentralized network of payment points where people can do this with our product in supermarkets, convenience stores, kiosks, wherever it's convenient for them, and therefore also bypassing the traditional banking infrastructure. And so, we help FinTechs to bridge the gap between whatever they can do and already do online but also helping them to get or to serve the cash needs of their customers. May it be for challenger bank deposits, or if you have consumer credit to pay it back in cash. You can do all of that with Paysafecash without the need to guide your customers from the perspective of a challenger bank or FinTech into one of your competitor’s traditional bank branches because they can just use the Paysafecash network, which operates independently. And so, in that sense, we help them getting more and more independent in the traditional financial system and getting one step closer to their end consumer. It's a B2C business model there, obviously.

I: And what factors are essential to operate successfully daily for a FinTech?

F3: For us, if we would consider Paysafecard, the company which actually was a start-up 20 years ago as a FinTech, which grew up in the past 20 years, I think the lessons learned are that you should not rely on what you have achieved in the past. So, it is good that Paysafecard became in 20 years a world leader in prepaid or online cash, prepaid vouchers. But three years ago, we decided that's not good enough. So, we invented Paysafecash to just tap into other industries, which we were not able to do so. And very, very important, as Paysafe did with cash, we were predominantly in the business unit of the huge Paysafe group operating worldwide. But I'm operating for the e-cash business unit. We concentrate solely on how we can make it possible for people using their cash in their wallets for online business models. And that's also important for other businesses or FinTechs to concentrate on the niche they have identified where we have a cutting edge over traditional banks and exploit that. Do not try to tackle the established financial players on a too broad front because you will not succeed. You just need to concentrate on your niche. And you’re an expert there.

I: And what would you say are the advantages and disadvantages, if you compare FinTechs in general to traditional banks?

F3: I think FinTechs have the advantage of being small, quick, and agile so they can do the typical trial and error. So, fail fast is like a buzz word in the start-up industry. They can do this. I mean, it's easier than ever to get financing on the private equity market or crowdfunding or venture capital or whatever, to just try out a business model and see if it sticks or not. So, it's in a way more risk-free for a FinTech to go into business and try an idea than for a traditional bank. Because it will always be combined with the traditional bank’s brand name, and they fear reputational damages. And also, their corporate structures are way too complex and big to enable innovation in a way it is needed to serve the customer. So that's the advantage of a FinTech. The disadvantage is, first of all, that they do not have an existing customer base. So, if they start new, they need to start from scratch, where traditional banks do have a longstanding customer relationship. They own the customer relationship. And FinTechs need to steal it from them first. So that's a big effort on the marketing side. And they have no scale. So, it is easier for larger corporations because they have a setup operation and scaled operation where FinTechs need to start over. On the other hand, I think the innovation power, in which smaller FinTech companies were piling up or popping up everywhere recently from challenger banks to lending, peer-to-peer. They just have the advantage of speed, the disadvantage of having no customer base in the beginning.

I: And on the other hand, what are the advantages of banks? I mean, they have customers. What are the other advantages?

F3: Right, I think where FinTechs do a very good job is in B2C business models where you as a consumer consume the product of a FinTech like an N26 account or Monese account or Skycash or Twisto, they all focus on us as a consumer because they have value for us. Where FinTechs yet struggle is in B2B offerings a little bit because it's hard to get into. And also, when we stay with banking services or lending services, traditional banks have the business customers, while FinTechs are good in getting the private customers, the higher profitable business customers tend to stay with traditional banks just because they know the infrastructure there. There is trust. And there is a history of business, a history of the business relationship with the bank. So FinTechs have a hard time getting into the real corporate financing corporate banking area. And this is why I believe that banks will always be, at least in that area, dominant over FinTechs up today and also for the foreseeable future.

I: And what are the disadvantages of banks? You said the structure and that they are slower than FinTechs.

F3: Yeah, they are slower. So, the advantage of FinTechs is that they can try and error, so they are fast. They are oriented very strongly on customer demands. When we talk about disruptive innovations, you always talk about Apple and the phone market in the past and how it revolutionized the Nokia phones. And similarly, your banking became from a commodity to a user experience feature. So, an N26 account is not necessarily a better bank account, but it feels better. It's a metal card. It's a nice logo. It's a customer-centric user experience while your brick and mortar bank doesn't really care about that. So, innovation in terms of customer-focused innovation is much harder for traditional banks. And that's why they tend to outsource that. And that's a good play to say, 'Hey, our structure does not allow for us to do the same as N26 does.' So, we just create our own style, which we finance, but we leave it operate on the side. And that's a good move. Some try a middle way like George did in Austria two years ago when they launched the George account, which was just another bank account wrapped in pretty paper, but it was the first attempt to be closer to the customer. Or, for example, boon.PLANET, which was a FinTech by WireCard, which unfortunately now will no longer exist. However, so the disadvantage is the corporate complex structure, which does not allow quick innovation. But the advantage here is they have enough financial background and backing just to create their own bonds and leave operate it independently.

I: But do you still think that banks will keep up with FinTechs in the future?

F3: I think both sides need to choose their balance. So, there will always be a place for traditional banks in corporate financing, corporate banking. And to some extent, also in private banking, because there are, at least from my perspective, there are still areas where you as a private customer would rather go to a traditional bank than to a FinTech or start-up or challenger bank. For example, if you want to have a credit for your house, a mortgage, for example. So, in smaller transactional volume cases, you tend to go to the fancier, newer FinTech area, whereas in the higher, more risky areas, you tend to go to traditional banks. So, I think it's on both sides. The FinTech needs to define the niche where they think they're superior to traditional banks. And there are a lot of niches, and banks just need to concentrate on their core business while trying not to lose too many private customers to FinTech. And here I think they both also can benefit from each other.

I: So you believe that collaboration or competition with banks is more beneficial for FinTechs?

F3: Well, I think clearly collaboration because FinTechs can just deliver the best user experience. FinTechs are quicker in trying to find out what works, what doesn't work. Banks are just good at doing what they do. I mean, they have done this for a really long time and are only struggling in making it appeal to customers. But in a way, FinTechs offer, if it's B2C FinTechs, they offer the same thing to customers just in pretty paper and fancier and customer-based and maybe sometimes cheap. But in a way, that's what also banks do. So, for me, it's a collaboration where banks define the areas where they are really bad in and find a FinTech, which can help them to just benefit also in that area. And it happens a lot. I mean, a lot of financial services or FinTechs do rely, if you take a closer look on traditional banks, behind the scenes. So, they already do collaborate in a very productive way where corporate banks all of a sudden use their infrastructure also for a B2C offering, and it's just behind the FinTech brand name, which enables the access to the private customer. But if you take a closer look, behind there is a traditional bank. And there will always be traditional banks behind because, in the end, money flows via bank accounts, and banks provide bank accounts. And a bank license is expensive. So not all FinTechs will apply for a bank license. Therefore, there will always be a collaboration between these two.

I: And with which challenger banks is Paysafe currently in collaboration?

F3: With multiple. One I've mentioned earlier is, for example, Monese, the UK based challenger bank, which really targets people who, as I said before, struggle to get a traditional bank account. We help them to actually satisfy the customer demand because they came to us and said our customers are asking us how and if and when they can finally deposit real cash money onto their Monese account without the need to go to a competing traditional bank branch and even pay a surcharge there to pay their money to the Monese account. And this gap we are closing with Paysafecash where we just created a barcode for these customers. They can bring to our payment points and pay in the money wherever they want where we have a partner location and deposit it to their Monese account. So Monese is one example. But others also come to us and knock on our door and say we want to achieve the same thing because we are ninety-nine per cent online. So, we have an online account, and yes, we provide a card to our customers, but this covers the cash outside. We just need to fill the gap on the cash inside. And Paysafe just delivers the biggest value to these kinds of customers.

I: And what were the factors that made Paysafe decide to collaborate?

F3: Well, if you will. Money, because we have the network of payment partners in 26 countries, we have basic cash as a product where we find four industry verticals where we thought our hypothesis was cash is relevant for these business segments. And over the years, the two years I’m there, it really boiled down to financial services, which is just the best industry for us to pitch that idea and to collaborate with because a lot of other industries struggle to understand the relevance of cash in online business models. If you talk to an e-commerce customer or marketplace, they first ask you, why do I need cash, I have PayPal, I have credit cards, I have all the digital payment methods, or I don't have it, but I'm online, and all this cash is offline. While financial services, on the other side, they do understand that there is a huge pile of cash out there, which they just don't get access to efficiently. It shows that gap. And so, for us, it was just based on the market feedback we got when we pitched Paysafecash two years ago, that the financial services industry said, “Hey, that's exactly what we're looking for.” And yeah, we can collaborate because that's the only thing in their customer relationship which was missing at the time. This one was the reason why we decided we focus more on the financial services sector. Here we deliver the biggest value to our customers, which are the challenger banks or FinTechs.

I: And what would you say are the challenges of collaboration?

F3: There's hardly any challenge, to be honest. The good thing is that both parties if we talk about or if our customers are FinTechs as well, both sides are flexible in the way they do business. So, we don't have a business model which is carved in stone. We try to adapt to our customers and vice versa. We always find a way how we make it happen. So, I must say working with challenger banks in my career in sales and corporate management has been one of the most pleasant ones so far because we speak the same language. So, there's hardly any challenge really to deal with these kinds of customers.

I: And which factors lead to a successful collaboration, would you say, between a FinTech and a bank?

F3: For us, if we because we also talk to traditional banks and we consider us as a FinTech, even though we are a big FinTech now, it's trust and appetite for new services because whenever there is a new FinTech approaching a traditional bank, sometimes two worlds are clashing against each other. Or if the bank already understood, they need some kind of innovation which they buy-in from the outside, it is a better relationship, but it really comes down to trust and appetite for doing this together. We normally start with pilot phases where we make a proof of concept, and you see how it works, how it fits into the traditional banking infrastructure. Before we start a huge piled up and expensive project and then it really comes down how we position ourselves and for us, it's the understanding of both sides that we try to achieve something together and create value, but not have the aspiration to, yeah we have done this 110 times over the last 50 years already. So, it's always something for both sides. And it must be joined with trust and a lot of bond along the way. So there's hardly any other factors, like hard to pin down factors, which makes it successful, it's just the bank needs to understand that they have a need in a certain area where they need the FinTech’s help and the FinTech needs to understand that sometimes it's a service provider to the bank. Sometimes it's a joint offering towards a shared customer. These factors must be clear from the beginning. And then both parties can work towards a collaborative goal. It's just hard, but it's in any business relationship that both parties need an understanding of what they would like to achieve.

I: And would you say that current laws in the financial sector are helping or hindering innovation in financial institutions?

F3: I think for us, whatever is in the European Union is fine. Even if you look at Switzerland, it's a very liberal law in Switzerland. So, for us, it's helping. So, the current legal and regulatory framework enables a lot of FinTechs to exist. For example, the foundation of innovation and start-ups has a very good start-up mentality in Austria, where it’s easier to get financing and try an idea, but also the regulation. For example, PSD2, which was released in the European Union, made it very easy for FinTechs to join the market and open banking API, where banks were forced just to open their doors to bank accounts under certain conditions, makes it easier for innovative business models and technologies just to provide new services to consumers. So that’s a very good regulatory or legal framework for FinTechs in the European Union. As far as outside the European Union and also the more Eastern, we don't really do business yet there, so I’m not the right person to answer that question for these countries.

I: And what is the role of the government? Do you think it also supports FinTech companies?

F3: A lot is, as I just said, so funding and framework for enabling innovation, any kind of innovation for FinTech, is making it easy for entrepreneurs to just start with funding. If they are already an established business, then make it easier to compete, and this is PSD2. So opening up the traditional banking infrastructure to new service providers and here governments, in particular, when we look at regulation, need to find the balance between on the one side enabling innovation, on the other side, still making sure that whatever is happening within their financial, so the oversight, so in Austria the FMA, in Germany the BaFin is still in a legal framework which prevents the misuse of these services. So, it's a difficult role the government has to play here, and they need to find the right balance between opening up as far as possible and limiting as far as needed or necessary. So far, what I see they do a good job there.

I: And do you see any regulatory obstacles for FinTechs as well?

F3: I think it's not obstacles. Certain countries in Europe take a very strict look on or stricter look than necessary by EU legislation. So, Germany is an example where the BaFin takes a very close look and has its own stricter regulations in some regards. But they will always do this for a reason. So, they want to prevent money laundering. They want to prevent terror financing. They just want to prevent that individuals misuse the system you build up. And we particularly when we want to bring, well, in the eyes of a regulator, anonymous cash into an online circulation, which is not anonymous, if you take a closer look, but still in their mind it's the worst thing that can happen. So, they take a very close look and try to limit and regulate the access and use of such a service to an extent where they can be sure it's not misused. And I wouldn't say it's obstacles. Of course, for us, it makes the work harder in order to design our solution in a way that complies with all this regulation. But in the end, it will help us just to prevent any misuse of our solution. Nobody wants to have a headline with “Paysafecash enables money laundering.” That's what we try to prevent, and therefore we are happy that there is an outside body looking at it. And for us, it's not an obstacle in a way. It's more a necessity we need to comply with. But it's not unjust and unfair.

I: And how does the Corona crisis impact the financial sector and particularly the FinTech industry and Paysafe?

F3: It very much differs. So, when I look at our customers and partners and also companies we have had talked to before Corona, during Corona, it depends on the business model. So, if your business model is strongly related to B2C people, for example, consuming or paying with your FinTech offering for services that were just not available during Corona, they suffer. So, for example, if you are a FinTech concentrating on paying for parking or public transport, as there are some consumer-based offerings in Eastern Europe, they struggle in Corona. Other FinTechs, maybe I'm almost ashamed of putting PayPal into the category of FinTech, but in a way, it still is, at least in my mind. They actually flourished. If you look at the stock price of PayPal and also its top line, it was a very good time for PayPal and other online business models, or online payment, for example, was very good for them. So, it really depends on what your core offering is. For us, I can only speak for us, Corona was less impactful, as we have feared. So we, because we are a business where people are actually asked to go out to either buy a Paysafe card or pay for a Paysafecash card. So, we expected that the lookdown restriction also impacts customers of us going and purchasing a Paysafe card or making a Paysafecash transaction. But surprisingly, it wasn't really the case. So, we had a small dip, but overall, we still grew compared to last year. And now Corona that is over, we actually grow even more. And so for us, it was less impactful as we have feared. For others, which I know, it was harder, and others actually benefited from it. So, it was really mixed.

I: Is there anything else you would like to add?

F3: Not necessarily. I think we have covered a lot. I must say I am actually day by day, amazed by the variety of financial innovation in B2C services and sometimes also in B2B. And I must say I'm happy that me as Robert, of having been part of it because it's an interesting industry to be in, to work for. And it's a fast-moving industry, and it's, even though there is a lot of regulation and legislation, it's still interesting to put new services to market and see how it works. So, nothing really to add to your question or your hypothesis that you are now evaluating.

I: Thank you very much! We reached the end of the interview.

Expert interview 7	**Challenger bank (F4)**
Date and Time	12th of May 2020 at 9.30 am
Location	Microsoft Teams
Name of FinTech	N26
Name of Interviewee	Christian Strobl
Role in FinTech	Head of Business development Austria, Switzerland, and Germany
Years of experience	One year at N26

I: Thank you for participating in the expert interview about FinTech and bank collaboration! First, I would like to ask you how advanced do you believe is the FinTech industry in Central and Eastern Europe?

F4: Well, basically, from my personal opinion, I would say it always depends on what you compare it to. But of course, if you compare it to other Western European countries, especially if you compare it to the UK, it's not that advanced. You see some smaller players that reached like global scale. I think there's this for finance FinTech, which is quite large already. But apart from that, also, if you look at, in the sphere of neo-banks, there's not really any neo-bank in Central Eastern Europe that basically has made it out of these countries. I mean, there is only Tinkoff in Russia, basically, which is huge. But in all of the other Central and Eastern European countries, there's no real neo-bank that is successful out of their own country borders and even not in the countries itself. Revolut is also quite strong there. I mean, Revolut has a bank license in Lithuania. But I still wouldn't count it as a Central Eastern European start-up because it's a UK based company at the end. Yeah. So there's really not that many FinTechs that made it to global scale yet, I would say, but a lot are more like supporting like B2B, more supporting processes of banks and helping traditional banks digitizing their processes, but not really like having found their own, let's say scalable and global business model at the end.

I: And which products and client segments do you think are most disrupted by FinTechs in the CEE region?

F4: I think in this region, there's a lot of lending going on, which is often P2P lending, but also like normal lending platforms. Then you find some payment processors, some payment solutions. So yeah, a lot of services that more support traditional banks in their digitization, but not so many that are really standalone B2C products that you would also know in like other countries.

I: And in what way is N26 disrupting the financial services industry? And do you think it poses a threat to traditional banks also?

F4: Yeah, basically linked to what I said before, that we are not basically supporting the traditional banks in the digitizing processes, but rather we are definitely competitors to traditional banks and building our own bank. So, we're definitely posing a threat to all the retail banks out there, all the traditional retail banks out there, because we're just more scalable in our processes, and we can also be profitable with way lower margins because we just don't have our legacy IT systems. We don't have physical branches. We are just way more scalable also across countries, and we’re in, I think, twenty-five markets now. And usually, traditional banks only work in their home market and maybe on two, three other markets. So, it's easy for us to scale.

I: And what do you think is essential to operate successfully daily for a FinTech or, more precisely, for N26?

F4: I mean, that totally depends on where the FinTech is operating. I mean for us, N26, it's definitely to be scalable and to, you know, have our processes digitized. Have a lean IT system and not only lean but really scalable IT system that really can cater like millions of customers with way fewer resources than traditional banks need to have. And for FinTechs, like usual FinTechs, that are not neo-banks, so to say, for them, it's important that they find their niche where they can really be better at than traditional banks. Yeah. Do a better job there.

I: And what do you think are the main advantages and also disadvantages of FinTechs or if you compare N26 to a traditional bank? What makes it stand out?

F4: I mean, for FinTechs in general, it's definitely the whole culture thing. So, they're just way faster to innovate. And usually, they also really like to specialize in a certain part of the business. While traditional banks try to offer everything, FinTechs then really try to focus and specialize in a certain area. And that's why they can just be better at this than traditional banks. And for N26 itself, as I said, it's a culture thing. It's the way more modern IT systems in the back that allow us to scale. And yeah, just to really like offer our products to more people around the globe. So, we're really able to develop the product. We develop it for 25 countries. And when a traditional bank develops a product, it develops it for one market, and it doesn't even make sense for them to develop a product from a commercial perspective. And so for us, we're just way more profitable and at a lower margin. So, to say, traditional retail banks would need a really high margin to be profitable.

I: And what do you think are the advantages and disadvantages of traditional banks, and what are the weakest points?

F4: I mean, they still have a huge customer base usually, and they are also usually trusted by the people because they're just out there for most of the time hundreds of years. Well, that's definitely still their advantage, I would say. In terms of disadvantages, as I said, they have their own legacy IT systems. Even if they want to innovate and want to do new digital products, their IT systems often hinder them, and it’s super or like extremely costly to change the systems. That's why they don't do it or try to build like another system on their legacy system, which makes it just way slower and more complicated. And then, of course, you have all the cultural issues that the banks were not really used to be, or they didn't really have to be super innovative, and so on. And now a lot of players, a lot of FinTechs out there, are super innovative and super-fast in their respective fields. And that's, of course, very difficult for banks with their more like traditional cultural setting to keep up with them.

I: And do you think at some point traditional banks won't exist anymore, or do you think they will remain in the market?

F4: I definitely think that traditional banks will remain in the market. This depends if the banks are going to do everything they do now. Let's put it that way, in retail banking, FinTechs and neo-banks can really be like a huge threat to traditional banks. I'm not sure if there will be a lot of traditional retail banks out there in many years from now. But in another sphere of corporate banking, for instance, I still think that there will be enough business, that they don't disappear at all. But in certain parts of their today's business, it's going to be difficult.

I: And do you think that collaboration or competition, in general, is more beneficial for FinTech companies? And what factors do you think it depends on or what type of FinTech?

F4: Yeah, I mean, it really depends on the type of FinTech. If you are a neo-bank, like us, and if you're really feeling building your own bank, then you are a direct competitor of traditional banks. And then there is not much collaboration or no collaboration going on at the end. If you're a FinTech and really super-specialized in a certain niche, in a certain product, then you can make use out of traditional banks just to offer your product to the large customer bases of the traditional banks. So, it can make sense to collaborate with traditional banks for them. You just need to make sure that they're not just exclusively working with one player because then they're limited to the growth at some point. And yes, they could be maybe acquired by a traditional bank for, I don't know, half a million euros or a million euros. But it's hindering them from really going global and scale.

I: Mmhmm. And if you would, for example, as a FinTech, decide for a collaboration. I mean, which is not the case for N26, but if you would go for it, what factors would make you do that as a FinTech?

F4: It must make sense for you, that it like speeds up your basically your scaling. Because if you have to buy all the customers yourself, it's expensive, you need enough funding. So, collaborating with a traditional bank can definitely help you to be faster and to really get access to a huge customer base, sometimes very early on. I mean, at N26 ourselves, we are collaborating with FinTechs, so to say from the beginning on, we're collaborating with TransferWise for international transfers. We're collaborating with Raisin for savings products, we’re collaborating with Viacash or Barzahlen, as it’s called in Germany, for cash deposits in Germany and Austria. So, we are this bank, well not like a traditional bank, but a neo-bank. We also do collaborate with FinTechs because often, FinTechs are specialized in certain niches and will just be better than us if we do it ourselves. And so, like really like basically, we’re putting their services in our products seamlessly. That is super easy for the user to use it, and it can make a lot of sense.

I: And you would you say that current laws are helping or hindering innovation in the financial sector in the CEE region?

F4: I mean, yet banking regulation is one of the toughest regulations out there. But that also makes sense at the end. Yes, there's a lot of money from customers involved and also a lot of public money at the end. So, I would say actually there's a lot, there's enough room for traditional banks and also for FinTechs to innovate. I mean, yes, they could always be better like you see, for instance, especially for FinTechs, you see some markets that now offer own like FinTech licenses that are a bit limited, so you're not allowed to offer like all the banking services out there, but usually, FinTechs don't do that anyway. So, for instance, in Brazil, you have a known neo-bank or FinTech regulation that is also used by Neon bank, which is, at the end of the day, the largest neo-bank in the world. You see now in Switzerland that they launch their own FinTech license. But this can actually help FinTechs.

And then there's also like a lot of like regulatory sandboxes out there that can also be used from FinTechs at the beginning, to really test the products on a small scale. So, I think it's good. It's becoming better. And most of the time, regulations are not, at least not the largest blocker, let’s put it this way.

I: And what would you say is the largest regulatory obstacle for FinTechs in general?

F4: Well, it's definitely I mean, at least for a neo-bank, it's definitely that currently we have to have a full banking license in Germany and that means in all over Europe and to obtain that you need a large regulatory team. Money laundering, anti-money laundering team, and so on. It costs a lot of money. And so, you definitely need a large amount of funding even to get there. So, it would definitely help if you have some smaller, let’s say, FinTech licenses before you have to go for the whole banking license.

I: And this is hard to obtain a FinTech license in general?

F4: Yes. I mean, at the end of the day, it is. I mean, of course, as I said, banking services are the most regulated ones or one of the most regulated ones out there. So, it is, of course, hard, and you need a certain size, and you need a certain amount of expertise. But at the end of the day, I think that's reasonable for banking services.

I: And how would you say that the current Corona crisis impacts the financial sector or the FinTech sector? And how is N26 dealing with the situation?

F4: I mean, it all depends on where you’re in, like as a traditional bank, it could impact you actually negatively because you will see a lot of credit defaults, especially when an economic crisis hits and more after that the health crisis. But for FinTechs in general, it could rather be actually positive for them because the whole crisis pushed the digitization a bit like in a lot of areas. And also, it's all in banking, and some of it will stay with people that didn't use any, let’s say, you know, digital payments before or now have to use it for at least a couple of weeks. And this will also change behaviour in the long-term. So, for FinTechs and neo-banks, that could actually have a positive impact in the long-term. In the short-term, we're also a bit affected because the volume of transactions, of course, went down during at least during the peak of the health crisis because, you know, restaurants, bars, shops, etcetera closed and people just couldn't spend the money, so transactions went down, which also affects our business model in some part. But we were definitely less affected than probably most of the other companies out there.

I: And do you think that FinTech companies can help traditional banks to get back on track after the Corona crisis? And what could they do?

F4: Yes. That really depends on where you are working, in which field. I mean, especially basically as a FinTech working in the calculation of creditworthiness really quick, that would help traditional banks now because they need to make great decisions now, really fast and especially before like government packages and so on. And then some FinTechs can really support them with their products and with their services and can be faster and can be better in these decisions. And yes, in general, I mean, FinTechs always can help traditional banks and digitization, even with collaborating with them or at least pushing them to be more innovative themselves. So, I definitely think some FinTechs can help them.

I: So basically, we reached the end of the questions. Is there anything that you would like to share or that you would still like to add, or you think it's an important topic for the FinTech sector and for N26?

F4: No, not really. I mean, as I said, it's always hard to describe N26 as a FinTech, so to say because we're really like a neo-bank, basically a bank ourselves. So, it's always very hard where we fit in, in the whole universe, as we are also collaborating with FinTechs ourselves, actually. And we've also collaborated before with a traditional bank in the beginning, so basically, we, in the time where we didn't have our own banking license, we have cooperated with Wirecard to be able to offer our banking services in the US. We are also collaborating with basically a white label banking provider called Axos. So definitely like collaboration in the whole FinTech space or whole banking space makes sense to some extent. But still, as a FinTech, and especially in the Central and Eastern European region, I think often they're trying to only offer the product in their own market to their own traditional banks in this market, and some are a bit cautious, and some of them forget to think more globally and to really scale. I think that this is one of the reasons why we don't see that many large FinTechs coming out of this region, which is also true for Austria, so there we can definitely be better and think a bit bigger and think a bit more global.

I: Okay. Thank you very much!

Expert interview 8	**FinTech Accelerator (F5)**
Date and Time	26th of May 2020 at 9.30 am
Location	Zoom
Name of FinTech	TheFactory
Name of Interviewee	Raja Skogland
Role in FinTech	CEO
Years of experience	One year at TheFactory

I: Thank you for participating in the expert interview about FinTech and bank collaboration! Could you briefly tell me about the Factory and what programs it offers?

F5: So, at TheFactory academy, we have three programs for start-ups. So, as I said, we have one for founders, for any industry, any state. We have one for start-ups, which means we put them in the category of companies who are at an idea stage, MVP, minimum viable product stage, a very early stage. So, these startups have to be in FinTech, PropTech, or retail to take part in our program. Right now, we have, I think, 20 plus companies, and we help them with advice, with connecting them to, actually, at this stage. It's more because we've been doing it differently. Now, it's a new format. At this stage, we're just providing them with some help, with some courses, for example. But later on, in August, we will invest in some of them. And then the intense accelerator starts. So, it's about, you know, everything we do is about providing start-ups with the network, with mentors, with investors, if possible, with experts in the field, with legal advice, with anything they need actually and coaching.

I: Okay. And how advanced do you believe is the FinTech industry in Central and Eastern Europe?

F5: You know, how advanced is it in Europe or in the Nordics. Okay. I think we are quite, you know, it depends on the country as well. Some very good ones in Sweden, for example. It's just that it's a complex question. You know, it's just straightforward. We have highly educated people. We have a cash-free society. We are very into tech and innovation. And we are early adopters. So, this environment makes it easier for start-ups to grow, to test. The Nordics are a great test market. Given the network that it's small, it's small countries, and it's quite easy to navigate. You know, who to talk to and also, given the culture of the country, it's quite easy to approach an investor to approach anyone actually. So, it’s many elements. That makes it a great place to start a business, especially a FinTech.

I: And in what way would you say are FinTech companies disrupting the financial services industry in Central and Eastern Europe?

F5: Well, I'm not familiar with Central and Eastern Europe, what they do. But I see that there are great examples. We see that there are many start-ups. Unfortunately, we cannot work with them. That’s why I also don't have a good overview of everything that is happening in Europe. And I'm a generalist. But we see that great start-ups are coming from Eastern Europe. However, we can't work with them because we invested in Nordic start-ups. We don’t have the opportunity to really get to know them, support them, and really know the facts. But we see that good ones are coming up.

I: Okay. And what factors are essential for financial institutions to operate their daily business successfully, especially FinTech companies?

F5: There are many things, and it's not specifically. There are many things, and it can be. There are a few things that are specific for FinTechs, and there are other things that are specific to the business. So being in an environment that is supporting start-ups, that is creating some sandbox regulations is helpful because it's quite heavy in terms of the investment to get a license. FinTechs are operating in a very regulated space, which requires to have access, to understand the legislation, to have access to lawyers that maybe have access to understand how to apply for licenses. So, it's not an easy type of company to start, because of regulations, I would say. I would say that's one thing for the FinTech. The other thing is, in fact, the success of companies in general business understanding, experience, doing the right strategies. This is quite the same for any type of company.

I: And what would you say are the advantages and disadvantages if you compare FinTechs to traditional banks?

F5: Okay, so the advantage is definitely being agile, quick, reactive, innovative. Risk takers. Those are the advantages. While larger banks have a structure in place, have a traditional business to run, have activities in place. And people within the organization have job descriptions and responsibilities. While a tech start-up of five to ten people or five to 20 can very rapidly, quickly adapt to change and operate in a more agile way. You see a big difference.

I: And do you think that collaboration or competition is better for traditional banks, to work together with FinTechs or to operate on their own?

F5: I think that it's worth exploring. Nobody's great on their own. First of all, it's very difficult to work with start-ups. The banks are not always ready to work with a start-up. It takes a lot of time to figure out how to understand each other, to go through the process of having a good fit for the market. Fit with what FinTech is offering and about what the bank is looking for. There are internal agendas, politics generally, priorities again. So, start-up corporate collaboration is quite difficult, but it's highly encouraged because this is the way that organizations can learn from start-ups, can open their eyes to new opportunities. And I believe that it's always good to have a branch or some people within the bank that are looking to start-ups. That have their ears and eyes on the markets, what's happening to the ecosystem instead of just working behind the big walls and not being aware of what's happening in the rest of the world.

I: And what are the factors that lead traditional banks to work with FinTechs? What are the benefits?

F5: They start to realize that their own business is disrupted by some others. We have some locals that you might not know of. So, many of them will not see the urgency of looking to start-ups. However, when they see that other FinTechs are grabbing market share and targeting the same customers, their interest is peaking.

I: And what factors would you say lead to successful collaboration between FinTechs and banks?

F5: Actually, we are working on creating. We’re going to have a project just on that after summer to think exactly about what the best practices are. But as I mentioned, what would make it a successful collaboration is that the start-ups need to be cooperate-ready. Be aware of what it is to be a corporate company. I used to work for four years in the banking industry in several positions. So that gives me the advantage to understand that. Actually, I come with my start-ups, and I was myself previously pitching my start-ups to corporate banks. So, I come with my start-up. And I think this is it, you know, they're going to jump on it, but they actually don't care. It's not that easy. It’s not their priority at all. They have their business. They have their salary. At the office, they can take time to drink coffee with me, to get inspired by my start-up. This is where it's important to know whom you talk to. And so, the corporates, when they meet the start-ups, they need to know that they're not making money. This is an investment for them to meet you to prepare the meeting. While the corporate is just sipping on his coffee. Listen to your story and maybe, you know, feeling proud to give you some advice. So, it's about being aware of each other's agenda, being clear with the expectations. And I don't expect the corporates. They are too outside of the start-up world to understand, to respect start-ups, I would say. They’re trying, but we cannot expect it from them. So, it's really the entrepreneurs that need to go into a meeting with a cool head and have clear in mind that it’s not going to be an easy deal. It's going to be at least a six-month conversation before something tangible is going to happen. So, you need to book your pitch first. Then you need to book another meeting to pitch maybe to the other team members. So, one of the things is maybe from the start, ask maybe before meeting them, say, “Please bring in each meeting, the decision-makers.” It's going to be difficult to do that and try to be aware of all the steps that are part of the corporate start-up process to create something together and optimize that process. By just being aware, saying during the meeting, “Listen, this is really an investment for us to come here. So please respect each other. If you are interested in this, let's make sure that we're moving in the right direction.” Because I had the situation with the third meeting with a large bank. The fourth meeting. I'm waiting for it because it went great, you know, more people jumping in, coming in, more people are interested. And then I don't hear from them for two weeks, but I give them time. I’m giving them time. They need to discuss it, the journey, they don't just have my start-up to talk about. And then I bump into one of them in an event. Okay, because it's a start-up community, we know each other. You always bump into someone, you know. So, the first thing that many, many corporates think that once that there's not so much to risk in terms of reputation, that they can do something to you, you know, then misbehave and not see you again? No. Actually, entrepreneurs are crazy. We can go to press and talk about it. You know, you must be aware of that, we are crazy people. So, we have nothing to lose. So, I'm exaggerating. But this is true. I have a case of a female entrepreneur with me who was mistreated by another bank who went to press. So, this is unacceptable. Look at how they treat us. They steal our ideas because, again, they stole her idea. She was pitching to them. And they brought her back and said, “Oh, listen, look, Heidi.” She's very known here in Norway. And they look and say, “Heidi, we are launching this. Do you approve of it?” And she says, “No, I don’t approve it, this is my idea that you're launching.” But they brought her if they wanted her to know about it and approve it. She would have never done that. So, nonsense, because they have no awareness. I don't know. They live in their own bubble. And this corporate, what he did to me when I bumped into him. He said to me, “Oh, I meant to call you. And you know what? We decided to do it for ourselves.” So, the same thing. They wanted to do it themselves. And you know what? One year later, they haven't done it. They are not capable of executing as fast, you know, as a company. And they don't have the passion. They don't have the expertise that we have. So come on, guys. You know, I actually, because I know that I will see him again and actually now I've been directly working with him. We met again, and what did he think? That he was never going to see me again? You know, now he’s indirectly working with us. His company is working with us now. So, yeah, I offered my help. I still said, listen, you know, you want to do it yourself, but you know that we are quite advanced in the process. We understand the audience. We know how to do it. So, if you need help, we can also come as a consultant. Because I didn't want to ruin a relationship and say, “You know what? You can't do this. You made us waist 10, 15 hours of our time. And now you're telling it straight to my face that you're going to do it yourself?” Because I was there. I knew he was not going to manage to do it. First, no and second, I knew I have to behave if he didn't behave. I had to behave because I was going to see him again, which he might not have thought about it. This is ridiculous. So, start-up corporate collaboration, it's quite difficult because we’re just human beings. And we make a lot of mistakes. We’re selfish.

I: So, would you say communication is like the biggest obstacle or the biggest challenge?

F5: Expectations. And knowing each other's agendas and priorities.

I: Okay. And do you think current laws in the financial sector are helping or hindering innovation in general for FinTechs?

F5: It depends on the country. Some countries are better than others. I think that especially for FinTechs, it’s so difficult actually. It’s so regulated. So, if I were a start-up who wanted to start a FinTech, there are some sandbox regulations. I would get in touch with the organizations who are in charge and try to be under that sandbox until you can actually launch something until you have tested the product. So yes, it makes it harder for FinTechs.

I: And you also think that regulatory issues impact the relationship between FinTechs and traditional banks?

F5: I don't know actually, I didn't think about that. I didn't have that case yet. Yes. I think that it does, in fact, because if the bank already has the license and can operate, they are in a stronger position than the start-up. So, in terms of negotiation, it's not a balanced relationship. They can actually execute it faster. But at the same time, it's an opportunity to collaborate together, use the license of the bank to launch a product. There are ways, I believe. So, it depends on whom these people are collaborating, the priorities, and the timing.

I: And now, with the Corona crisis, how does it impact the financial sector and, in particular, also the FinTech industry?

F5: Well, when talking to some banks that we have as partners. They react differently. However, some completely lost interest in start-ups because they have to focus on their own business. Some realize that they were completely behind, that they needed now to be digitized. They needed now to be online. They needed now just to have all the processes. They could not have more than one connection with their clients, and onboarding is done manually. So, some actually realized that they would need to speed up the processes. Either internally create new solutions or find other solutions outside created by start-ups. And there are others who we're not doing anything for two months and then realize that they need to change something, to keep on going, you know.

I: I can imagine. And how could FinTechs help traditional banks to get back on track after the Corona crisis?

F5: It depends on which FinTechs. Of course, since everything has changed, the society, the way we work. We are at home. E-commerce has been booming. Everything has to be digitized now. If you want to keep surviving. So, any business that was not digitized, at least now, should be digitized. It's now to be processed, formalized online. That's the opportunity for FinTechs to getting better, but at the same time, it’s difficult because banks are trying to maybe look outside for the solution, but maybe not within the companies. It takes time to look for the solutions, and that time is not made to create money. It’s free work for the employee unless it's their responsibility to actually find the solution that they are paid for. It's very difficult for banks to go out there, and at the same time, think about how to make money. What are the priorities for them?

I: Yeah, I see. We already reached the end of the questions. Is there anything else you would like to add, or you think it's important?

F5: No, it’s fine.

I: Okay, then thank you very much!

F5: You’re welcome! Keep me posted.

Expert interview 9	**FinTech Accelerator (F6)**
Date and Time	2nd of June 2020 at 5 pm
Location	Microsoft Teams
Name of Interviewee	Anonymous
Role in FinTech	Managing Director

I: Thank you for participating in the expert interview about FinTech and bank collaboration!

F6: You’re welcome.

I: How advanced do you believe is the FinTech industry in Central and Eastern Europe?

F6: In Central and Eastern Europe, there are quite a lot of fast-growing ecosystems in different countries when it comes to FinTech. Different regions have different focuses and also different maturity levels when it comes to FinTech. But in general, there is a lot of highly educated tech talent. There are a lot of people founding businesses, and there's more and more, also, venture capital in the markets and also the governments, the public institutions try to foster these developments around FinTech in their countries. And there is from Russia, where they focus a lot on deep tech, blockchain technologies, etcetera, to Central Europe, Czech, Hungary, where there was a lot of payment activity in the last years, lending. So, in general, we see a lot of activity in Central and Eastern Europe in FinTech.

I: And which products and client segments would you say are most disrupted by FinTech firms in the CEE region?

F6: I think this has developed over the last years, and FinTech has moved from pure user experience innovation to really TechFin to the technological side of FinTech. And here, the uptake of some solutions in Central and Eastern Europe is beyond what we see actually in Western Europe. So, for example, we see high demand in crypto in Central and Eastern Europe, or we saw that our Eastern European, Russian, Belarus, Ukrainian banks were actually dealing with blockchain for trade financing or other topics much earlier than what we saw here in Austria or Germany. So, I would say compared to Western Europe and CEE, it's less about the fancy pansy, UX, UI, and more about tech.

I: Okay. And in what way would you say is digitalization in the finance sector affecting the RBI?

F6: In what way? In all ways that you can imagine. Digitalization is the biggest trend in finance at the moment. And I think the whole banking industry at the moment is dealing with digitalization and all its effects. So, customer demands are changing. Possibilities in technological development are changing. It is getting easier and easier to disrupt parts of banks that previously were held to be high in some regulatory security walls, so to say. Today, pretty much everyone can fund a payment or financial app using banking as a service provider. So, I think the digitalization is affecting banking on the customer demand side. On the transparency side, on the speed of developments. So, being agile as an organization, cultural wise. In all ways that you can imagine.

I: And how would you describe the business model of the RBI and what factors are essential to operate successfully daily?

F6: I mean, the fundamental business model of banking has not changed over the last years. It is taking savings and lending to other people and all its variations. But I think the way it is served and, as I said, the transparency is getting higher in the industry. Business models change based on their transparency, based on comparability, based on availability. And the business model of RBI today is the one of a normal universal bank covering corporate banking, retail banking, investment banking, markets. So capital market banking. What factors are essential to operate successfully as a bank? I think there are many, of course, but I think the most important factor is trust. So also, in this world of ever-faster speedier developments, customers expect that they can trust the bank. And I would say like small events like we saw over the last month show this and also show the importance that banks are continuing to provide trusted services, to focus on IT security, for example, it is just one point. Also, be close. It's more important than ever to be close to your customers, to really be able to evaluate the real risks, also in a time of uncertainty. To be a trusted partner in times where the, I would say, normal risk models, are maybe not practical anymore. From one day to the other. So, trust, closeness. And then, of course, the digitalization factor, I would say. Balancing all these but being still fast in adapting to changing customer demands.

I: And if you compare traditional banks to FinTechs, what would you say are the advantages and disadvantages of traditional banks? And where's room for improvement?

F6: Advantages, I would say is, is the trust. In most parts of the world, also the closeness to the business or to the customer. At least, as an incumbent. Although, in some countries, people are underbanked because they just don't have a branch and they have closed facilities. So there digital solutions can help to serve the underbanked. And the advantage of a FinTech is definitely their speed, the lack of any historical dependencies.

I: And do you see any disadvantages from FinTechs over traditional banks or other advantages that you haven't mentioned?

F6: I mean, FinTechs usually lack the network that large incumbents have. They are not as trusted as incumbents, usually. They do struggle sometimes to bring their product on a large scale to the market. This mostly brings the necessity of spending a lot of money, which only a few of the companies can afford as they have large funding. So that's why a lot of FinTechs actually switched from fighting banks to cooperate with banks.

I: And do you believe that collaboration is more beneficial for FinTech firms and banks? And what factors does a partnership depend on? Why does a FinTech choose to collaborate with a bank? And why would the bank cooperate with a FinTech?

F6: If a FinTech collaboration is of advantage or disadvantage for a bank, this is the one question that is always raised. It's always a make-or-buy decision. And in the end, it's a case by case decision. I think it makes a lot of sense for banks to work with FinTechs, to learn from FinTechs. And in a lot of cases, it makes sense to also use the solution or bring their solution to the customers compared to building it on your own, simply because the building is very costly. It takes a lot of time, and FinTechs have different and a lot of times more advantages and ways of how to approach customers. So, a lot of times, it is beneficial, but not always. As I said, there are some core elements of banking that you would probably expect a bank to be able to do on their own, where partnerships may be not the best. But others building an ecosystem of partners around the core of a bank and therefore or thereby providing always the best solutions to the customers. This is an advantage of collaboration. Just as the type of Fintech company. This is always a very strategic decision if a bank wants to join a platform where it gets more transparent than before. It is also not always the case that it is beneficial.

I: And regarding Elevator Ventures and Elevator Lab, with which FinTechs is the RBI currently collaborating?

F6: There are various, and actually with Elevator Lab, we have always aimed for including the whole bank. And we've not only done retail banking businesses. For example, we have cooperated in Albania with this FinTech to provide the first solution in Albania to provide mobile payment solutions, secure code based. In Austria, we know Blue Code. It was a similar solution, but also corporate banking. So, in Austria, we have been working with a RegTech with KYC automation solution to automize our KYC process or actually KYB processes, so “Know Your Business” processes, to enable the onboarding of companies actually to the bank end-to-end and digitally. We have worked with analytics companies. We have worked in the markets investment banking area with analytics companies. We have invested in a Russian agro FinTech. So also going beyond banking into new industries and embed the finance into value chains of new industries. We have invested in an SME lending business. So really, I am afraid I can’t now list all of it. But I think you get a good impression that it is really a broad area and all the banks are affected by FinTech cooperation.

I: And how would you describe your previous experience with FinTechs? Do you think it's easier to operate with them, with their corporate culture and their mentality, their speed, from a bank perspective?

F6: I must say from a bank perspective, it went surprisingly well. A lot of FinTechs gave us very positive feedback on how we were setting up the cooperation at the pilot projects and how well they perceived the cooperation with us. Probably if you ask others, then they will still say that it took too long or it was complicated or something. But I mean, that's how it is. I think that the bank and the people in the bank learned a lot from FinTechs. I assume that FinTechs also learned a lot from us. And so far, we saw that the FinTech companies that we worked with were highly professional teams. They knew their product inside out. They knew a lot about their customers. They sometimes needed support with market entry into new markets, with regulatory requirements. But I think that the assets and the strengths of banks and FinTechs match each other very well.

I: And what factors would you say are important when the RBI decides whether to collaborate with a FinTech or not?

F6: So, we select FinTechs on a certain parameter, on certain criteria. But, of course, when we look for FinTechs, then we know why we look for a certain topic. There has been a strategy review before that. There has been a need assessment, kind of specifications that we were looking for. So, when we are looking for partners, we know quite well why we do that. But when we select the FinTechs, it's definitely about the innovativeness of the solution. It's about the team. It's about the fit to our markets, to our bank, and also about the maturity of the company. We would not partner with a very early stage company. Yeah, I think those are like the main factors.

I: And which factors do you think lead to a successful collaboration between a FinTech firm and a traditional bank?

F6: I think there must be a clear mutual benefit of potential collaboration because the way to collaboration is full of hurdles and pitfalls. And if not both sides see a clear value add, then probably it will not work. Professionalism on both sides and willingness to do that. Then it works.

I: And what are the main challenges or the biggest challenges of collaboration?

F6: Probably timing. I mean, both sides need to be ready.

I: And would you say that current laws for the financial sector help or hinder innovation in the financial institution in the CEE region? For example, PSD2.

F6: Regulation is always the main driver and influence in banking and finance. So, a lot can be changed and moved by regulators. If regulators are opening the financial industry, as they did, then this, of course, drives. But it can also hinder in other ways. I think it's balanced. But PSD2 is a good example that actually drives the opening of banking and financial services as of now. And I think that most governments. And I was sitting on the advisory board of the ministry of finance last year. Most governments are actually quite aware that this is a huge topic, and the regulators know that they need to be close to these developments to have a reasonable chance to be able to react to and regulate these developments, so they need to be close. And that's why they proactively work with that and try to foster these developments.

I: Just one last question. How does the Corona crisis impact the financial sector at the moment?

F6: Of course, it impacts. It is not a financial crisis at the moment. It is a health crisis. I think at least the Austrian banks are quite well prepared to help the economy as the governments are now, of course, pushing for that. The long-term effects, of course, cannot be really forecasted yet. In general, some trends are accelerated. And I think digitalization, as a whole, not only in banking but everywhere, took a major leap forward. People that never imagined opening a bank account digitally or communicate with their bank digitally had to do it. I mean, bank branches were open, but a lot of people did actually for the first time communicate with their bank digitally. And these learnings, of course, are triggering down to all the areas of banking. And this is, I think, accelerating some trends that have been already, so to say, coming in the last months.

I: Okay. Thank you very, very much!

F6: I hope I could answer at least the most important questions for you. Yeah. In case you have any further questions, just drop me a line.

I: Perfect. Thank you so much!

F6: Okay, have a nice day!

Expert interview 10	**Bank A (B1)**
Date and Time	14th of May 2020 at 10 am
Location	Skype
Name of Bank	Steiermärkische Bank und Sparkassen AG
Name of Interviewee	Gerhard Maier
Role in Bank	Head of controlling foreign investments
Years of experience	14 years in this position and 30 years at Steiermärkische

I: Thank you for participating in the expert interview about FinTech and bank collaboration! First of all, I would like to ask you how advanced do you believe is the FinTech industry in Central and Eastern Europe?

B1: Although a large number of FinTechs are based in other areas like the USA or Great Britain, in Central Europe, countries like Germany, Austria, or Switzerland are taking bigger places on the FinTech stage. In our CEE countries, in which the Steiermärkische Sparkasse has a bank and leasing subsidiaries, FinTechs are not strongly developed. Because of the bureaucracy, difficult laws, and less available capital. We, as the Steiermärkische, we are focused in Styria and the CEE countries, this means Slovenia, Croatia, Bosnia-Herzegovina, North Macedonia, Serbia, and Montenegro. So, it depends on your clarification of what is Central Europe. We also call Slovenia, for example, to Central Europe.

I: Yeah, I would also count it to Central Europe. And which products and client segments do you think are most disrupted by FinTech firms in the CEE region?

B1: Mostly, the affected is the private individuals, this is for sure.

I: And do you think younger customers are more likely to use FinTech services?

B1: Yes, for sure. Yeah, especially in our CEE countries, we see that, for example, the older people are still going to the counters in the branches, and we also see this in Styria. If you come on the first of each month to the branches, then you know what the issue is.

I: And in what way do you think is digitalization in the finance sector affecting Steiermärkische?

B1: Yeah, in Steiermärkische, a few years ago, it was said generally that digitalization is the future. Currently, in the present, it’s our today's everyday life. Yeah. We in Steiermärkische are one part of this. For example, our net banking platform, George, is the most famous digital banking app in Austria. So, we are fully focused on this.

I: And how would you describe the business model of Steiermärkische?

B1: Steiermärkische has shown strong development since the establishment almost 200 years ago from the classic saving bank to one of the market leaders in Styria with a wide range of financial services for private individuals and companies. We are a modern, but also a traditional bank and part of Erste Group with high equity services.

I: And what factors are essential to operate successfully daily, for Steiermärkische?

B1: What factors. Yeah, the daily contact with our clients. Yes, direct contact. I mean, we have an omnichannel system in our group. We have our branches with daily contact. We have our George on the internet. We have even also video conferences for our clients.

I: And what would you say are the advantages and disadvantages of traditional banks, if you compare them to FinTechs?

B1: So it is an advantage for the banks, you see we have a long time experience with tradition, security and trust, and long term professionals. So, we know our customers very well, even on a daily basis or we know them. The existence of these omnichannel, which means the combination of physical branches and real personal contact with your banker and the digitalization of our bank, is also the advantage. The disadvantage we see sometimes, we have these long lines in our branches, so people have to come sometimes to the branches. We have a slower processing speed compared to the FinTechs, and we have very strict regulatory rules, more effective on this part.

I: And what would you say are the advantages and disadvantages of FinTechs, if you compare them to traditional banks?

B1: It's the opposite, let’s say. The disadvantage is they don't know their customers. Not personally. So, they only have all the data, but they don't know the person. The advantages. They are very fast. They don’t have strict regulatory rules. And they do everything online, so it seems that they are much cheaper or have cheaper costs.

I: And do you believe that collaboration or competition with a FinTech firm would be more beneficial for a bank?

B1: Yeah. Banks have to go for cooperation. It should be a win-win partnership with the FinTechs. Banks have the IT infrastructure, we have the capital and the client stocks. You know, the FinTechs are innovative and flexible. And they can help to improve their daily life.

I: And you said that Steiermärkische offers George. And are there also other collaborations with FinTech firms? Or does it mainly focus on George?

B1: No, we have implemented, for example, Apple Pay and Garmin pay. And we are, for example, also using a store, a database store for selling of used leasing objects. So, we have a lot of different collaborations with these FinTechs. We as Steiermärkische, we have high pressure to reduce the processing costs, so we try to be more innovative and getting more clients and a better image of this part, and therefore, we do this.

I: And what factors are important for traditional banks, for example, Steiermärkische, when it decides whether to collaborate with a FinTech or not?

B1: The factors are the reliability and the market orientation of the FinTechs. Yes, we, as Sparkasse, reliability is one of the most important parts. The market orientation for the FinTechs, it should help for further improvement of the processes in the banks. But we expect to have a perspective of a positive business plan. In fact, everything has the goal that it should have more benefits for the bank and the clients.

I: And what are the challenges, if you collaborate with a FinTech? For example, the corporate culture could be maybe difficult to deal with because FinTechs are just different.

B1: The corporate culture is not the issue if they're reliable. Yeah. And when they can concrete define the targets and if they follow. The biggest issue is if they are not reliable. That’s our biggest issue. The corporate culture is different, yes. They are more flexible. It is different, but this doesn’t matter, in my opinion.

I: And you said there has to be a win-win situation for both parties. And what other factors lead to a successful collaboration? Is there something else that is very important?

B1: We should always have a focus on the clients, where we can finally improve the prosperity in the countries. This should always help for the clients.

I: And do you think that current laws for the financial sector are helping or hindering innovation in financial institutions?

B1: Yeah, in Western Europe, we already see quite good developments. But the big issue is the regulator, like ECB or our Austrian regulator. It hinders some developments. For example, the Know Your Customers regulation is a very tough regulation for us, as a bank. Yeah. And this hinders innovation. In our CEE countries, for example, the regulations have to be really, really improved because, for example, we still are missing a law in some of the countries for digital signatures. On the other side, banks are protected through strong regulations because the banks have to secure the savings from the clients. The financial health of the people in Europe comes first. So, we have the advantage that the strong regulation is existing, but also a disadvantage for more innovation.

I: And what would you say is the role of the government when implementing new regulations? Do you think it supports FinTech solutions?

B1: Yes. I mean, it is a must. The government needs to adopt laws that support the development of financial markets and the economy. Especially, support for funding start-ups would contribute further development in the country. It is on different levels in different countries. This depends mostly on the political situation, what I see here.

I: And do you think that regulatory issues impact the relationship between FinTech companies and traditional banks?

B1: Yeah, ideas from FinTechs are very good, but sometimes they do not comply with the regulations of the bank. So, this is the issue.

I: And also, a lot of FinTechs don't have a banking license. And probably this is also a problem?

B1: Not really, because we have the license. We are using the FinTechs in a partnership. If FinTechs would like to do it on their own. And this we see already in some, for example, in the payments, and in the credit card business or investing in securities. This is the problem of the FinTechs that they do some business without the regulators. But if there is a collaboration between the banks and the FinTechs, then there will be a win-win situation.

I: Okay. How would you say the Corona crisis impacts the financial sector?

B1: COVID-19 has really had a huge impact on the different sectors in Europe, especially in tourism, culture, events, and all these different production areas. The unemployment rates are growing, and as a result, the private consumption will go down. It impacts other sectors, as well. As the financial sector is financing all the other sectors, we expect a higher impact on non-performing loans in the lending, and this leads to higher risk costs in our profit-and-loss calculation in the next couple of years.

I: And what would you say is the biggest challenge that Steiermärkische is currently facing?

B4: Yeah, banks were open for the customers the whole time during this crisis. The liquidity of our clients and their well-being are our number one priority. We try to help in the best way according to the defined rules of the regulator. But without the financial help of the governments to the clients, it seems that the affected clients are not able to survive. By working together, we will overcome all obstacles. We, as a traditional bank, will always be with our customers as we have been doing it for more than 200 years. Steiermärkische has a solid capital situation, and I'm sure that we are able to continue with our business model, as in the last 200 years, even the last crisis, the bigger crisis in 2008, we continued our business.

I: Could a collaboration with a FinTech firm help to get back on track after the crisis?

B1: We have to take care that our costs are going down. As I mentioned this already, and therefore we also need the FinTechs because of their flexibility. They have to develop, and they will develop some really good features which the banks can use and could help to reduce the costs. And additional services for the clients. For example, I'm coming back to this issue with George. George is a kind of FinTech, and it is our FinTech. We founded this, and we call it an innovation hub. It can be compared to a FinTech. In this hub, we developed our digital platform. It actually covers the entire financial health of all the clients from account management, transactions, credit card business, loans and credits, securities account, and much more. This case, we did with our own FinTech, but for example, Apple Pay is also a typical FinTech calculation or project. So, this is for me. This is the best future that we have a win-win situation and collaboration with these FinTechs.

I: Perfect. We already reached the end of the questions. Is there anything else you would like to share or you think is important?

B1: No, I’m fine.

I: Okay, thank you very much!

B1: You're welcome!

Expert interview 11	**Bank B (B2)**
Date and Time	15th of May 2020 at 11 am
Location	Microsoft Teams
Name of Bank	Raiffeisen Bank International AG
Name of Interviewee	Andrei Spiridon
Role in Bank	Expert Markets & Investment Banking Business Development
Years of experience	Eight years

I: Thank you very much for participating in the expert interview about FinTech and bank collaboration! How advanced do you believe is the FinTech industry in Central and Eastern Europe?

B2: I think there is still a gap between Western European FinTechs and CEE. And I think you have multiple reasons why. First is that the talent that you have in places like Berlin, London, as the typical start-ups, not because, for me, FinTech is not necessarily a branch. It's a part of the start-up industry which deals with banking services or payments and such. So, I think you have a lack of how many people are interested in starting working in FinTechs and in start-ups in CEE compared to Western Europe. Then you have a gap of funding. I think you can easily get money in Western Europe compared to Eastern Europe. And then the market in Eastern Europe is not as mature and also not as big. So even if you have good people and you have some funding once you're launched, you don't have the same, let's say, visibility and market share and just market volumes that you would have in Western Europe. So the players that you see in Western Europe like Revolut, TransferWise, Monzo, Atom Bank, N26, all these names that started a couple of years ago would have never had the same velocity and expansion in, let's say, Hungary or the Czech Republic or Bulgaria, if they would have started there. So, I still think that there's a significant gap.

I: And which products and client segments would you say are most disrupted by FinTech firms in the CEE region?

B2: Retail and payments.

I: In what way is digitalization affecting the RBI? And how are new entrants like FinTechs affecting the RBI in terms of revenue, market share, and also customers?

B2: So, first of all, you need to understand that RBI has a double function. One is the RBI Bank in Austria, which is a corporate and investment bank. So, our clients in Austria are only large financial institutions, like other banks from other countries are all over the world. And large corporate customers, mostly Austrian corporate customers. And by large, I literally mean the largest ones, like OMV, Red Bull, like these big, big players. So, the digitization, let's say, efforts here from FinTechs are quite low because this market is big in terms of volumes of money, but it's not big in terms of client. So, you only have, let's say, 500 large corporate clients in Austria, but you have eight million retail clients. Our FinTechs are focusing only on retail. Or mostly on retail. So, we have not seen disruption when it comes to the corporate investment bank. We have seen some good, let's say, niche products there, but nothing, nothing to disrupt the market yet. When it comes to retail, it's a completely different picture because, first of all, retail banking is much more intuitive. Like you are a retail client. You know what it is. You have a bank account, and you have a debit card, you make payments. So, all these things for you as a 20-year-old working in a start-up are much more intuitive than corporate and investment banking. So, I think the people working in the FinTech industry have a much more intuitive grasp of producing new solutions for retail people than for investment banking and corporate banking. So, this is why most solutions that you see on the market are payment providers. They do not have a banking license. They offer cards, but only process the cards. They do not offer banking services. So, you cannot deposit money with them. You cannot get loans. So, they only offer you the very basic services of, let's say, transaction banking. So, most FinTechs are in this transactional layer, which means that they do not have a banking license. They operate as a payment service provider under the PSD2 regulation. They do not offer you all the protection. So, for example, if you put money with Revolut and Revolut goes bust. The money is lost. It's like you're putting money in your Amazon account. It's like you're putting money in your PayPal account. The government does not protect it. If you put money with Raiffeisen, it's protected up to one hundred thousand euros. So, let's tackle the disruption. So, the disruption factor is only in the retail area. And with RBI, our retail area is outside of Austria. So, we have 13 different banks we own in Central and Eastern Europe, all of which have retail clients on their own. We do not have direct retail plans, but indirect through our network banks or subsidiary banks. And there we see in most markets a high level of disruption, but it's not consistent. So, depending on the market. So, for example, in Russia, we see Tochka Bank and Tinkoff Bank in Romania. We see Revolut. So, it's market-specific. In the Czech Republic, we have players like Akcenta and N26 is also entering some of these markets, but not all of them. So, depending on the market, you have different disruptors, and you also have different, let's say, needs. Some of them are tackling the topic, FX, foreign exchange. We also see a lot of disruption there. That Revolut, for example, is offering free foreign exchange rates, so at the interbank rate, which is for a bank almost impossible to do without making a loss. Credit cards, debit cards with zero costs running because most of these FinTechs are actually making a loss. So, they're not making a profit. So, again, I was saying a lot of things, but concretely. The disruption we see in retail banking, the disruption we see in basic payment-related services. And not necessarily lending mortgages because these FinTechs are not allowed to use things like that. And the disruption, I would say, is quite abrupt and severe. If you think of, let's say, offering a card with zero costs versus a card with five euros a month, there is a difference. If you offer it zero compared to four euros. So, you can gradually go down, but FinTechs offer it for zero cost. The disruption factor, whenever it comes, it's brutal, and it challenges you to reduce your revenue versus keeping your revenue completely. So, there's no, you know, you lower the cost from five to four, from four to three. So, you make a plan over the next five years? No. If you want to stay in the game and if you're losing market share, you need to be competitive. Offering, let's say, the same thing as FinTechs, which is mostly zero revenue out of these services.

I: And how would you describe the business model of the RBI in general?

B2: So, the business model is similar to what I explained before. In Austria, we’re focusing on corporate and investment banking, offering them all the typical services they need to run their company. So, if you think of a large corporation, it's everything that they need to run their treasury department, to run their payments, to run their investment banking stuff. So, we offer investment services. And so, we issue bonds. We organize syndicated lending. So, these are kind of customer segments, financial institutions, and corporates. And it's the same thing we do in CEE through our network banks. But of course, the market there is a bit smaller, and in CEE, most of our revenues are coming from the retail area and from SME, which is small and medium enterprises, which also counts to this retail cluster where we offer traditional banking services. So, deposits, cards, payments, mortgages, lending. So, a typical traditional universal bank.

I: And if you compare traditional banks to FinTechs, what are the advantages and disadvantages of traditional banks, and where is room for improvement?

B2: So, I think I always cluster this into four categories. People, legacy IT systems, processes, and working mode. The way you collaborate, cooperate with each other, which is maybe a working culture, maybe corporate culture. Maybe you can call it corporate culture. Yes. These four things are differentiating FinTechs to banks. And in all of them, there are pros and cons to each. And we can go through them. So, first of all, it's people. Banks traditionally have people with a lot of experience, which means that, for example, during the crisis time, like now, they have already had a crisis before. They know what to do. They are a bit more, let's say, like soldiers who have been in the war before. So, they have seen a lot of things. FinTechs, I think a lot of them, because they have very young employees and because they don't have the experience, they do not deal with shocks in the same way as large banks do. So, you can shock a bank with different problems, a crisis, and they will be a bit more resilient than FinTechs are. But I'm only talking about large shocks because, for example, when you talk about adapting to the new market, conditions like disruption and digitization is what counts for me in cluster four, which is corporate culture. And I think there the advantage is the other way around. That FinTechs are a lot more adaptable to new market conditions, let's say, disruptions on the market, and they can adapt from today to tomorrow on what the market needs now. And banks need a lot more time, and sometimes they don't even notice the market trends. So, these two clusters, one and four, are very linked to me. The people that work in these institutions, banks, and FinTechs and the mentality and corporate culture that comes with it. And depending on the situation, it can be a benefit for banks, when you think about crisis or a benefit for FinTechs, if you think about market disruption and adapting to market conditions and the two points in the middle, which are systems and processes. Most banks have systems coming from the 60s, 70s, 80s when these systems were first introduced. Depending on how old the bank is, that’s basically also how old the oldest legacy system is, which has mostly negative effects. The only positive effect is that it's running. So, it's something stable. There are not a lot of security breaches. There are not a lot of, let’s say, downtimes, server downtimes. So that it's kind of like having a very old diesel car, which, you know, always runs. Yes. You cannot change anything. Yes. You just run it until it completely dies. But as long as it's running, it's running. And you do not have any problems in the winter, opening up the engine. So, this is the positive of the old legacy systems. The negative and the positive of the FinTech systems is the adaptability, user-centricity, adaptability, flexibility, modularity. You can switch modules in these new systems. You can only adapt, let's say, one feature and not need to change everything. You can have releases within a week and not within a quarter. So, these systems are differentiating in terms of how you sell the product because banking is, in the end, reverse engineering of what your systems can do. So, if my system can offer you, let's say, a very cool credit card module, then this is what I can show to you. If my system cannot do it, then even if I want to, I need to manually manipulate everything because my system is not able to process that. So, I need to invest in people, in manual workarounds, in manual manipulation. And the last one is the processes, which is a combination between the systems and the corporate culture, which from my point of view, is again very similar. If you want stability, if you want safety, if you want good governance, then banking processes are one hundred per cent the safest processes probably out there, when comparing them to medical processes and stuff like that because we are also regulated. For FinTechs, this is also an advantage for FinTechs when it comes to expansion and growth. They are not as regulated as banks because they do not have a banking license, most of them. So, they can operate in grey areas where banks simply cannot. And I'm not saying grey areas in terms of good or bad. I'm just saying legislative grey. So, it's not yet fully regulated by the European Commission or local regulators. So here the processes of banks are checked on a yearly basis, on a monthly basis on a whatever by regulators, by audits by. Yes. A lot of stakeholders making these processes quite bureaucratic. But at the same time, also safe.

I: And do you believe that collaboration or competition with a FinTech firm is more beneficial for a traditional bank? And what factors does it depend on?

B2: Well, let's tackle the competition part. Banks have always competed only with banks historically, and only in the last couple of years, there were discussions that Facebook, Amazon, and these Big Tech giants want to enter into payment services. But actually, the disruption is not coming from Apple and Facebook. It's actually coming from FinTechs. So, when you talk about competition, there is still competition amongst banks. But now the topic is disruption. So, when you compete with a FinTech, you do not compete against the FinTech. You compete against the disruption that this FinTech is bringing, which is a completely new way of looking at the world. Because in the past, let’s say, Erste Bank brought up George, which is a new mobile bank, a mobile banking app. And that mobile app worked much better than ELBA, which was Raiffeisen once in Austria. It simply meant that you lose some customers to Erste Bank, right? You do not change your business model. Right now, if you see that somebody is offering zero per cent on loans or zero per cent on FX, they are combining banking services with Airbnb and banking services with booking.com and whatever and partnering up. You simply need to rethink your business model. And it's not only that it's a competition topic. It's a disruption in terms of what do I understand under banking and what is the value-added that they bring to my customers in their daily lives. And this was not done because of the tech giants entering slowly into the financial industry. This was done because of the FinTechs. This was done because of TransferWise. This was done because of N26. This was done because of Revolut, not because of Amazon and Facebook. And the second topic, the collaboration part. I think it's tricky because, in the end, it always depends on which people are working in which positions. So if you have people who are a bit more open-minded than banks, they will want to work openly with FinTechs to find common solutions, and they are only focusing on the clients, and they are only focusing on how can I produce value added for my clients, the same way as in FinTechs are also collaborating with banks based on which people are working for these FinTechs. And it's as simple as that. Some FinTechs have, let's say, their owners and founders have a very strong opinion that they do not want to collaborate with these big banks because they see all these banks in general as the enemy, and they see them as the target that needs to die, the dinosaur that needs to die in order for them to live. So, therefore, they completely shut out any collaboration. At the same time, other FinTechs just want to make money, and they see collaborations with banks and want to grow. And they see that as a possible next step for them to collaborate within a project with the bank. I don't know if there is any consistency from which service they are coming from. So, for example, FinTechs offering cards are more likely to collaborate with banks. Probably if you look at statistics, you might find some causality there. But I think it's more correlation than causality. I think it's more randomness in the cluster they're coming from. I literally think it's a personal decision of the people in charge if they want to collaborate or not.

I: And could you tell me about the Elevator Lab and collaborations of the RBI with other FinTechs?

B2: Yes. So, the Elevator Lab. I don't know if you googled it or seen any info on it. It is a corporate collaboration program between RBI, who not only in Austria but also in all our network banks, and FinTechs coming from all over the world. But of course, we want to also collaborate as much as possible with FinTechs coming from the CEE region because we are strongly of the opinion that the regionality and market specificness of our markets also somehow needs to be translated in our collaboration stakeholders. So, a FinTech coming directly from a market of Albania would have a much better understanding of the market locally than the same FinTech offering the same kind of services coming from the UK. So, what we are doing is basically that we are writing challenges, and we say these are the topics, these are the areas in which we want to collaborate with FinTechs with companies out there. We issue these challenges, and then our FinTechs apply in this accelerator program. And they go through a filter phase. Usually, we have a couple of hundred applicants. Then there are different mentors in the bank, which filter and rate these applicants. And then we invite them in video sessions to pitch for us. And then, in the end, we choose finalists and winners out of the program, which means that for a period of three to six months, we work together with them under the statement of a work contract. Where we simply try to produce a minimum viable product. It does not need to be ready to be launched on the market, but something that we can test out and see if further collaboration can happen. So, a lot of FinTechs apply. We choose around eight, ten of them to collaborate. These are the winners of the Elevator Lab, which means that we sign a contract with them. They get paid some money. We offer them the full infrastructure of RBI. So, we offer them client data if they need client data. We offer the infrastructure if they need infrastructure. And they offer us kind of their expertise and new kinds of systems and disruptive ideas, and we collaborate with them. And then, in the end, we show cast what we did in these three to six months together. What were the achievements? What were the KPIs? And also, if we see a potential plan moving forward together or not.

I: And how would you describe your previous experience with FinTechs?

B2: So, I was a lead mentor in one FinTech, who won the Elevator Lab, and I was assigned to it. I was basically the lead mentor for everything, what was needed to be done in order to produce, let's say, a demo at the end of the three months. So, I tackled the legal agreements I tackled the statement of work, the plan. The stakeholders needed RBI project management. So, I was basically in charge of everything. And this FinTech was called Cambrist, and they are an UK, no Ireland, Dublin based FinTech tackling the topic card processing. It's quite, quite technical what they are doing. But basically, they would be helping us in the back, manipulate a bit our FX rates offered on cards. So, if you travelled with your euro card to the US and you make a payment there, you get, let's say, an FX rate. And we would, with the help of Cambrist, optimize as well as for the client, but also for the bank these FX rates. So, this was the value proposition, and we ended up continuing the collaboration with Raiffeisen Bank Romania. And the collaboration was continued for around a year. However, it was stopped because of the migration. I mean, we're getting very, very in detail here. But Raiffeisen Romania could not further collaborate with Cambrist because we are migrating there the card system. We cannot do that for the next two years. So, this migration takes a long time to do, to migrate from one old system to a new system. So, although we would have wanted to collaborate with Cambrist, it needs to wait for two years until the new system is in place. And then we can offer the Cambrist solution on the new system. So, it's very, very specific here. But basically, I was in charge also for the second period.

I: And what would you say, what are the most important factors when deciding to collaborate for RBI with a FinTech?

B2: So, we always look at the expertise within the team. So, who is our counterpart? A logo, a name, whatever is nice, a website. But we need to see the people. So, who are the people that are the managing directors there, the founders, the leading people, kind of like the management team, which can be one person, which can be three people? With FinTechs, it's usually one. Well, not one, but two to five people that you deal with who are kind of the decision-makers there and what do they bring to the table. Yeah. So, who are they? It's kind of like a résumé when you apply for a job. What do they do? What is their expertise? Who are their clients? What do they offer? And are they professional people, or are they some other people that just created the Web site? And it looks nice, but they are not professional. Yeah. So, one is the people criteria. Second is the funding criteria. So how much money do they have in the company invested either from themselves or from investors? Which rounds, which investment rounds? Is it seat money A? Is it round C? How much funding do they have, and how much are they dependent on new money coming in, in terms of surviving? And this has a very practical reason because if you have a company which only has 50000 euros from the founder, which are his savings, that company will not last more than three months if it does not have new revenues. It's as simple as that. Yes. So, it's testing out that. And certainly, the solution. Is the solution good enough for our needs, for our RBI needs?

I: So, which factors do you think are important for a successful collaboration between a FinTech firm and a traditional bank?

B2: So, I think all the factors which I mentioned before from the FinTech site. So, they need to have funding, they need to have professional people, they need to have a good, innovative solution. This needs to happen because otherwise, if one fails, everything fails from the FinTech side. And they need to deliver. So, they need to deliver on the planned date, on the planned, whatever, they need to deliver value. And on the bank side, you need to have the right people on board. The larger the organization, the fewer people feel responsible for anything. So, this means that whenever you bring in something completely new, you bring in a completely new idea, completely new people there from external. They're external. You face a lot of scepticism and resistance to change. If you do not have the right people involved and the right people are usually people who have decision making power and people who are in the right places to give you, let's say, an OK to proceed with a contract, or to give you an OK to proceed with the payment or to give you an OK to do something. Upper management board attention is always a must. Almost. If you do not have that, I don't think that these kinds of programs, FinTech collaboration could work because then they would simply go into the typical procurement process of each bank where you have a meeting, you challenge the market, you screen the market, you write RFP, and then you get some feedback from different vendors, and the FinTech is just the vendor. Yeah. In that case, it will not fly because the FinTech cannot meet the same quality criteria as IBM or, as you know, somebody who would be on the market for so many years. A FinTech is a start-up, so if you want to collaborate with a start-up, you need to have, let's say, people who actually want to collaborate with the start-up. It's the same as with the university. Yeah. If I want to collaborate with you in your role as a researcher now and if I say, "Look, could you do this and this and that for me?" And you say, "Yes." Then I also need to have kind of approval from RBI to do that, because otherwise, it's not typical that the university collaborates with the bank. Yeah. So, if I do not have, let's say, the full corporate support from RBI, and this translates in support of people in charge and power, the project will not fly.

I: And what would you say are the challenges of collaboration?

B2: I think not delivering from the FinTech site because simply they underestimated the. Or let's go back to the four clusters. Out of each, you can come with challenges. So, there can be challenges because of the age difference between people. So, the clusters one and four, which are people and corporate culture, can be a major challenge. I think it's the first challenge that you speak simply two different languages. The second challenge is the systems and the systems which the bank uses are not compatible with whatever the FinTech is using. So, there you simply spend too much time estimating the implementation requirements on the bankside in order to be able to proceed. And the whole project just dies because it's too expensive. After all, the bank's systems are not adaptable enough to handle the new system of the FinTech. Another one is the processes, which also include this kind of procurement process I mentioned before that you go into the bureaucratic world of the bank. There is a process for everything. You need to approve everything, and a project can die. You know when Indiana Jones is entering a kind of like a temple, and there are like traps all over the place. And there's only one way in which you can do it not to die. It's very similar to getting a FinTech through a bank. There are so many obstacles and traps and snakes and boulders and spikes all over the place coming out of these kinds of four clusters. And there is only one way, and the probability is quite low that you have a very like a successful end-to-end with a FinTech. Not only, you know, you talk with a FinTech for two, three months you give them 20000 euros, and then you can put it in the paper that you did that. And this is also a way, but it does not bring any value to your clients, just marketing value. And a lot of banks are doing that. So, a lot of banks are also collaborating with students. It's the same that you issue a challenge to a university. They do it. You get some funding to the university, and then you make a nice photo with, this is what they produce. But then you never read what they research for you. And so, you do it for PR reasons.

I: And would you say that the current laws in the financial sector are helping or hindering innovation in financial institutions?

B2: Well, if you think of FinTechs, I think it's helping them because they are regulated by the PSD2 regulation, which offers them a lot of freedom. If you think of banks, it’s completely killing innovation because banks are investing so much money in implementing all the new regulatory requirements like Basel, GDPR. Like every, every, every aspect of the bank is highly regulated from either local or European level. I always make this distinction between that because we also have banks in Non-EU countries. So, for them, it's not the EU regulating, but indirectly it is because we are the owners. So, some EU regulations also apply to them. So, it's a mixture. So, you need to have a lot of people only taking care of regulations to read them, to implement them. And then, in the actual business areas or risk areas, we have people for implementing those regulations. You have a stress test. You have regulatory reporting. You have a lot of rules that you need to have and submit to, which gives you almost zero time for innovation.

I: And what is the role of the government in this? Would you say it also supports FinTech in the CEE region?

B2: In CEE, I don't know any. I don't know if I'm the right person to comment here. This is, I think, more my personal view than my, let's say, expert view on this because I don't know it. But from what I see, I don't see a lot of incubators and kind of tech hubs or FinTech hubs in CEE, as I see in Berlin, for example, or as I see in London, and I'm not too much into detail. But I guess it also maybe is a sign that because I don't know, maybe they don't exist, and because I know in Berlin, maybe they exist. So, I think in CEE, especially, I don't see the government playing a very huge role in supporting start-ups in general, not only FinTechs. I think the concept of FinTech in CEE is highly underappreciated and misunderstood or not even known.

I: And would you say that regulatory issues impact the relationship between FinTechs and traditional banks?

B2: This is a very good question. I think regulatory issues might be the sole purpose why these FinTechs actually exists, because if banks would maybe have had the opportunity to be a bit more innovative in the last couple of years, maybe these FinTechs would have not even appeared on the market. So, I think we're dealing with exactly the lack of innovation, which is not coming from banks. They are coming from this need to innovate, which they do, and we don't, as much as they do. So, I think one of the reasons is the regulatory burden on banks, maybe not the biggest one, maybe not the only one, but it's one of them. So, you know, it's kind of the chicken and the egg problem. It's where does it start? And is it a problem? I think moving forward, for FinTechs, the regulatory burdens will be an issue because if they want to expand, they need to offer lending. You cannot survive with zero income and only relying on newly acquired clients, on growth, and so on. I don't know, selling the data and kind of these non-traditional banking revenues. At one point, you need to grant loans and make money out of the margin of the loan because that's simply where the money is in banking. I think these value-added services will still be profitable, and transaction banking will still be somewhat profitable. But if you completely disrupt the market and cut it to zero, then also for yourself moving forward, it will be impossible to raise rates. So N26 will never be able to offer a debit card with more than zero.

I: And how would you say that the Corona crisis impacts the financial sector?

B2: I think it accelerates the digitization process of banks. I think it accelerates the agile transformation and adaptive transformation of banks. I think it accelerates the virtual collaboration of remote working in a very, let's say, fast trackway. So, you're obliged to do it now. And I think banks are starting to, let's say, resume a bit to kind of the bread and butter and focusing on clients more than before. Also, because now the regulatory pressures, I think, will lower a bit because the regulators are now focused that the banks do not default, rather than controlling them to one hundred and thirty per cent. At the same time, this will mean moving forward that there will not be a lot of money left for, let's say, Elevator Lab programs maybe. I’m not speaking officially from the RBI point of view but from the general banking sector. So, in general, banks will have less money to innovate in the future. And if this Corona situation continues and if you have problems with profits and with revenue, but this is typical for crisis times, which means for FinTechs, I think that a lot of them will go bankrupt. And this is exactly what I mentioned in the beginning, that the resilience to market crises when it comes to start-ups, not only FinTechs, is low. So, they will not. I mean, I'm not an expert on these kinds of things, but intuitively, I would say that a lot of them will have issues, difficulties maintaining. Yeah. Maintaining their lifeline.

I: And what are the challenges that the RBI is currently facing?

B2: With Corona?

I: Yes, with the crisis, basically.

B2: I think we transitioned very well in the remote working environment. I think we still have some gaps when it comes to digital that we need to address moving forward within the next, let's say, two years. And we need to digitize all the processes when it comes to clients and direction. And people interact internally. So, when I think of, let's say, an account opening process, it needs to be digital. It cannot be that we are waiting for physical documents to be signed and send back because the crisis showed us that these kinds of things, even though maybe there were not a must until now, it will become, let’s say, the new normal. So, I think it accelerates the need for digitization. But until now, I think RBI has responded very, very well. What I do not know is the Corona indirect impact from our customers because here we are living and dying with our customers. So, a bank does not exist if it does not have customers. And our customers are themselves affected by Corona. And I think now it is a bit too early to see the effects. So, we have been provisioning. So, the numbers from our Q1 results have gone down compared to last year because we have been provisioning. But the effects of Corona we will see moving forward. So that has more to do with the numbers, with the revenue, with the gross income, with the profits. And this we simply need to see, like all the other banks on the market.

I: Okay. So basically, we reached the end of the interview questions. Is there anything else you would like to add, or you think it's important to share?

B2: No, actually, I think we’re done.

I: Okay. Thank you!

Expert interview 12	**Bank C (B3)**
Date and Time	20th of May 2020 at 4 pm
Location	Zoom

Name of Bank	Erste Bank
Name of Interviewee	Goran Petkovic
Role in Bank	Head of Department Digital Banking Agile Delivery
Years of experience	Three years in George Labs and one and a half years in the new position

I: Thank you for participating in the expert interview! How advanced do you believe is the FinTech industry in Central and Eastern Europe?

B3: I don't see that much. If I compare it to the USA, then it's far, far away from that. So, I don’t know if you want to make some labels from one to five so far is where the US is. And the three to four is what you have in the West like the new banks that are coming, Monzo and Revolut, and so on. So, I would say between two and three, not more.

I: And which products and client segments are most disrupted by FinTech firms in the CEE region?

B3: For the client segment, definitely retail. So private individuals, this is for sure. The majority of clients, of course not, maybe the biggest turnover like in a large corporate. But still, I think that the FinTechs in Europe definitely, they are still not aiming for these big companies. So, retail customers definitely. And which products, so mainly it’s online banking, mainly online banking. And some loyalty programs that some FinTech companies are providing.

I: And in what way is digitization in the finance sector affecting Erste Group?

B3: So it's actually pushing us forward. We are here for 200 years. And we really managed to survive because we, so far, managed to change, and this digitalization is actually pushing us forward. So we are maybe not. In some cases, trendsetters. But definitely, I could say that we are the early adopters and trying really to get the best from this area to our customers.

I: And how are new entrants affecting the business? For example, FinTechs.

B3: So far, we didn’t see such a big impact. Not a big impact on our general or our main business areas. What actually, I see now is more and more is, again, maybe with the investments or securities trading and so on, that these are coming. But still, on the other hand, you know, if you're the president who has 1000 euros to place, you will play, maybe with some new FinTechs. But if you're the guy who has 100000 euros to play with, then you would appreciate more to have a stable institution behind you, like a bank. Of course, in a couple of years, it will be the reason to stay. So that's why we are investing in all those areas so that we don't lose our clients only because of this.

I: And how would you describe the business model of Erste Group?

B3: So, the new business model that's actually coming from my former CEO, Mr Treichl, and now it's his legacy that we are pushing forward, is this financial health. So, again, we have some principles in the Erste Group that are there from the beginning. So, from Marie Schwarz towards new days. So, we actually don't want to be a bank in an old-fashioned way, but we want to be an institution that actually really takes care of your health. You know, from a financial perspective. So that means that we don't want to have you as a customer to whom we are pushing the product. Don't care about if you can really survive this. But more in a way that we advise you what to do with the money you have or advise you that you're spending too much, that you can run through some problems. To actually really help to stabilize the financial part of your life. Yeah. Your income is that much, so we cannot too much, maybe help on that side. But we can tell you how you're actually spending your money, and maybe you can spend it more wisely again if you have some money aside, why you should put it on the savings account, with some interest. We can tell you, and maybe you can make some investments that you can earn five per cent per year, for example. Or, for example, if you plan to buy a new car, what would be the impact on your financial life? Or if you lose your job because of something? You really have some future perspectives. So, this is actually our business model. To help the clients to really have a prominent and clear future ahead of them, from the financial side.

I: And which FinTech solutions does Erste Group provide at the moment?

B3: So we have George as our main solution, it's online banking, but it's actually more in the way that it's combined the newest technologies on the market, but also creates a great user experience and customer journey. And then the second that we have is a portal. That's actually the Web pages of our Erste entities. But that's just pure information pages. It's actually giving you the opportunity to really, how to say, to provide the information, actually to guide you and to convey to you the proper person in the bank that actually can help you. So, we always, when we push some information there, it’s always their call to action. So not just static information, but a call to action that you can actually react to the information that you get. So, I would put those still on the retail side. On the corporate side, we have several, again, online banking solutions that are targeting large corporates, and of course, this is the contact centre. But everything actually integrated for us, for the retail in George. So, you can use George as a single point of contact with the bank. You can contact your advisor. You can book an appointment, and you can even ask for a loan and send everything online. And really, just in some cases, do everything online and in other cases, just to have one visit to the branch to finish the work you want.

I: And what factors would you say are, in general, important to operate successfully daily as a bank?

B3: First of all, it's the stability of the solution that is actually available 24/7. This is one of the main factors. The second one, I would say that you really understand the client's needs. So not to push what you think is the best for them, but to actually give them what they ask for. So that's why we try to collect the feedbacks, not only by talking to our clients from time to time in branches and so on, but also have really, really large community on the online channels like Twitter or some other community platforms. And at the end, of course, at the end of I mean, from the perspective of our importance, it’s our number one. But it's the feedbacks that we are collecting immediately. So, for example, if you do something in George after that, we just give you the survey. And then we also track what people are saying on this. If someone is starting some process and then drops after two steps, then we investigate why the drop rate is so high. And then, we try to improve the user experience that actually you come to an end when you start your journey.

I: And what would you say are the advantages and disadvantages of traditional banks compared to FinTechs?

B3: Definitely, I see the advantage is that people have more trust in the bank. This is an institution that is for a long time there. People know that name, that brand. They can easily connect to this. What the disadvantage is, yes, the new generations are coming. Again, the generation that is more online. They will never go to the branch and so on. So, the disadvantage for us in some cases, we are slower than FinTechs again, because first of all, we are a big, big corporation. And the FinTech is, in most cases, I know, up to 100 maybe or couple hundreds, and we have fifteen thousand employees if you're considering that. Also, that FinTechs, it's everything is under one umbrella that you have one company that has one product, and they are driving this product. In our case, we have six Erste entities where you need to align and to consult each of them because they are all relevant stakeholders in this. We have one joke in our George community: The reason why Batman is working alone is that he doesn't like group projects because, in group projects, you have to align with every member, and then it's taking the time and needs patience. And they can react quicker on those things. So, we are also trying to be quick. And in the end, we are managing. But we also see room for improvement, definitely.

I: And on the other hand, what are the advantages and disadvantages of FinTechs over traditional banks?

B3: The opposite way that advantage for them is that, first of all, they are more agile. Really, they can react quicker to the changes. They're not following some bureaucracy, maybe. And still, we are fighting with this. Also, the FinTechs, it's really a buzzword today. So, you know, you have these crowdfunds that people just putting the money, they're raising tens or hundreds of millions of euros and put it into the FinTech companies because, you know, one hundred you would succeed. And then it will take billions of these. But all of those might fail, and you will lose some money. So there maybe, if you have a nice idea, you can maybe get savings quicker or collect the money quicker. And the disadvantage for them is you could talk about these financial markets. For them, it's yeah to come to the clients. First of all, they need to build a base from scratch. And the second thing is that, for them, the disadvantage, maybe they have a cool feature that will not be used. Actually, you’re going to need to have some breakeven with a number of users. So even if you have cool features and you're below one million usages. Then you’re not earning money, and at some points, the funds can run out, and then you will be closed.

I: And do you think that collaboration or competition with FinTech firms is more beneficial for banks? And what factors does it depend on?

B3: I mean, we in Erste, definitely, and this is also my private opinion that collaboration is the proper, proper way forward. So, we all can benefit, or we can combine our advantages and then also resolve or neglect our disadvantages in that matter that FinTechs can contribute in a small portion to be part of the bigger, bigger ecosystem. But still to have a great feature on the market with earning decent money. So, we already have this in our online solution, in George that we are working with FinTechs. And I think in the next two months, you will see something in the Austrian market and also something in Česká Market. We have this concept called third-party integration. So, we open our platform for all the FinTechs to join, to bring their solutions, and then actually we can offer these to our 50 million client base. Not 50 but 15 million client base. Sorry.

I: And could you tell me more about the collaborations that Erste Group has with FinTechs? Or about George, for example, what factors made Erste Group decide to establish George?

B3: That's first of all, this is something that is around us. FinTechs are here, so again, to fight with them or to be on the opposite side to a bank. Also, we are always open to new ideas. We also like to learn from many. So, we are letting FinTechs join our endeavour because we think that with this, we can enrich our offer to the clients. Actually, the main point is to satisfy our clients. And again, if you go back to the beginning of this interview and this financial help and our principles in Erste, is that, for example, we would not be so glad to put some gambling FinTech on our platform because this is, we don't see this as the right way, you know. Everything that really can benefit our clients, we are more than ready to welcome this FinTech and to promote this jointly and to offer this to our clients.

I: And what factors are important for Erste when it decides to collaborate with a FinTech?

B3: First, the idea is really something that we also can. That we actually can follow or that we think that makes sense for us, for our goals and our vision. So, this is the first thing. The second thing is that FinTechs actually show readiness to collaborate on a partner level and not in a way that I'm giving you this, and then I'm putting the terms. Because again, we are a big banking group, and we can do the same. But in George, we don't do it. And also, to have stability. So, it really does not make sense that we offer something, and after three months, this FinTech is gone. So, to have some, let's say, to prove the stability or to really put in the market for some time and then that we can collaborate.

I: And what are the challenges of collaboration?

B3: Challenges. To understand again that there is no one, you can say that is the leading role or in the back seat. But we have this eye-level or partner-level and that also everyone really understands how he can contribute. I mean, let's say, the companies. And also, the challenge is that if you don't have the same or similar way of working. So, in a way that if you're a waterfall part and they are purely agile, then that is really hard to collaborate in that matter. You know, if you really have the plan for one year ahead or something like this, and they are doing an iterative approach and ship every month, something and so it's very hard to work in this way. So, yes, we actually have the agile methodology in place. We shape it according to our needs. We are delivering something every four weeks something for the production. And in that case, we can go hand in hand with the FinTechs in that way. On the other hand, they are more, more again, quicker in some cases. Because you know, this is not the same. The bank and the FinTechs sort of interact, so the FinTech cannot play. If you pay something and the Wiener Netze doesn't get its money, then it would be bad for me as a provider. But you cannot listen to your Spotify for half an hour, and nothing will happen. So there is a big difference between the banks and other providers. Of course, Spotify isn't a FinTech, but let's say you have some company that is offering some vouchers. So you cannot buy your voucher at this moment, you will not be so happy. But still, you will survive. But if you cannot do some transaction, then you will scream. So, this is the point. It's a bigger obligation on the bank currently.

I: So, what do you think is important for a successful collaboration?

B3: An open relationship with clear responsibilities, with a joint goal. So, a joined vision. These are the main things we have in place before we start.

I: And do you think that the current laws for the financial sector are helping or hindering innovation in financial institutions in the CEE region?

B3: This is an easy and hard question because those are going to the direction to help FinTechs. So PSD2 regulation is one and maybe put the banks in some different positions they are having now. Totally fine. The point is, actually, if you don't accommodate to this, then you will lose. And I see that actually those changes are made for the end-users. So, this is actually our motto. What is the case here is that the banks are more strictly regulated than the FinTechs. You know, for example, we have these asset quality reviews, for example. The European Bank does that. Then you go through such a hard stress test to show that if this happens, can you maintain liquidity, if this happens can you do this and so on. And FinTechs actually do not have this. So, if tomorrow FinTech is gone, you will lose your money, and that’s it. So, it’s not big money there. I mean, you have a lot of mixed customers, but let's retake Revolut. I use Revolut. But I don't have my paycheck there. I do not use Revolut heavily. I'm using it when I'm travelling somewhere because of some nice features. But I would never exchange this for my bank card and my George because George offers me much, much more. And the banks in that way, so the laws they're stricter, of course, after 2008. It's stricter, and they don't have it. And also for security reasons. Also, we have, I mean, it’s also our internal problem. Our security guy said that this is not possible. And then when you really dig deeper, when you push them, then they say, “Yeah, you can do it.” But with those risks or if you actually cover those things, that you can go with this. So, we are fighting with this legal stuff. We are taking it more seriously maybe than the FinTechs, in some cases because we have a bigger responsibility. I mean, we have a high number of clients with 200 years of existence, depending on fifteen thousand families and so on. So, it's a much, much larger scale than FinTechs.

I: And what is the role of the government? Does it support FinTech solutions in the CEE region?

B3: I would say yes, because with this regulation that they're putting into the place and also the audit that they're doing to us. I would say they are supporting. For example, you had the PSD2 live on the 14th of September last year. And if you didn't have something like a bank, then you needed to explain why and then maybe some files you will need, because you need to, at that time, you need to put some APIs from the bank that actually are publicly accessible to the FinTechs and so on. So, if you didn’t have it, then you could have some issues. But if you obstruct the FinTechs, so for example, I put it there, but my environment is constantly down, so again, we could be fined. So, I would say yes, those regulations are helping them.

I: And do regulatory issues impact the relationship between FinTech companies and traditional banks?

B3: I don't see that’s the case because we accepted it, and the feedback that I got from the colleagues that I'm working within this area is actually also that one of the digital solutions we have is this open banking so that offer FinTech companies. Actually, I forgot about this. That we are offering to all the FinTechs the portal where they can sign-in, and they can have some. They have keys for access to our environment, and they also have a sandbox where they can put their solution in place, and they can play with our APIs, the bank APIs, and those account information AISP, that they can see. So, balance, to check the balance, and so on. So, we have this in place, and we are now building this further. And with this, we are also recognized in Austria as one of the rare banks, maybe the only one who has this approach with the FinTechs that, of course, isn't ideal. Still, they want to have even better. Nevertheless, we are, I would say, pretty, pretty on a more advanced level than some other banks in Austria on this open banking.

I: And how does the Corona crisis impact this financial sector? And what challenges is Erste Group currently facing?

B3: I mean, regarding Corona. And the situation around it is that, of course, we, as Erste Group, really took the position, first of all, that we will continue to serve our clients, with the same quality that also means to have all the people in place to serve those customers. What we can’t influence and we actually will have the impact is on other companies, that our clients actually that would have the issues after this crisis and this actually we'll definitely lead to bad loans and portfolio increase, so that means that higher risk reserves we need to put and so on. Everything actually on that side. If you put more to the risk reserves, then you actually lock your money to this, and you cannot invest in some new things. So, let's say, that in that case, some part of the money would be then gone to mitigate the potential risk or even to distinguish some fires so they could not be then put into some innovations that were planned at the beginning. The question is now with how much money.

I: And how can traditional banks get back on track after the Corona crisis?

B3: Traditional banks and again, it’s a lot of, it's really fully connected to the customers, so if we are talking from the perspective of what is the income there, how much our clients can consume the bank's products. On the other side, this time showed that it's possible to be online, to work online, to communicate with the people only via video chat, and so on. So this will also be one of the lessons learned that you don't need to have everything in person that you don't need to really see the guy to give him some small amount of money and a couple of thousands, whatever, as a loan that you can loosen up some risk rules there. For example, we use the digital signature in our company. So, this can also be to do it outside of the company, a way that you can fully take the loan to some extent. So, online by signing some relevant authorization methods and so on. So those things. So, the banks need to be aware that this online world is now actually expanding even more, and people are aware that it's possible to do online. For example, in Slovakia, we already have onboarding online, and you become a customer of Slovenska with just taking the app from the store and giving some face recognition and uploading your ID, and that means that you have the account actually in place and you can use it. We could go further. So, with the loan, it’s the same thing or other communication with the bank so you can do it online.

I: Okay, thank you! Basically, we reached the end. Is there anything else you would like to add?

B3: I mean, this game of FinTech and traditional bank slowly will fade. So, it could be five or ten years. I believe it will be either a thin line or the banks will be not existing anymore if they don’t transform somehow. Or really take the collaboration with the FinTechs. Because even some people who are now online or 50, 60 in 10 years, they'll be not such important clients, let's say, because they will be retired. So, then the new guys that are now 20, 20 something. They will not go to the bank. But if you do not do this, then you will be like BlackBerry. You will not exist anymore.

I: Okay, perfect. Thank you very much!

B3: You're welcome! I hope that I helped somehow.

Expert interview 13	**Bank D (B4)**
Date and Time	22th of May 2020 at 11 am

Location	Zoom
Name of Bank	Sparkasse Niederösterreich Mitte West AG
Name of Interviewee	Hans Peter Giovanelli
Role in Bank	Head of Vienna department Sparkasse Niederösterreich
Years of experience	14 years at Sparkasse Niederösterreich

I: Thank you for participating in the expert interview! How far do you think the Fintech industry has advanced in Central and Eastern Europe?

B4: Well, not so much in Eastern Europe. I only assume, because of the good training in Eastern Europe, that a lot of FinTechs have already been developed in Eastern Europe and that they are relatively far advanced because they got the know-how from the West. Many of them are trained in the West. Yes, they have probably caught up a lot in recent years or decades, and in our country, it is also advanced more. But not to a great extent now, because the culture in Western Europe is quite different, even more to the personal advisor, they still have to get away from that. In America, it's completely different. They are used to it, but in Austria, for example, or in Europe, it is just rather less. It is still developing and mainly takes place in the payment sector. Not so much in this special consulting area, but in payment transactions, as you can see from the online banks that we have in Austria, Easy Bank was one of the first, and they mainly have payment transactions. There is not much more to it. It is still relatively expandable.

I: And how does digitalization impact Sparkasse Niederösterreich?

B4: Well, for us, it affects that, first of all, we are attached to Erste Bank with a lot of things. With the joint liability scheme of the Sparkassen sector. That means that we naturally take on a great deal, for example, George and so on. We are trying to get as many customers as possible into online banking. It is very, very important that they can do these simple things and also the entire payment transactions online. And in addition, we are already preparing products such as loans, for example. But just simple loans, such as standard transactions that can also be handled by IT and where you don't need an advisor behind them. And when it comes to more specific advice, it will be that which is then left behind. But we are already relatively far. We already have small loans. You can call up a credit line online if you're a customer in our bank. And payment transactions anyway.

I: And how would you describe the business model of Sparkasse NÖ?

B4: Well, we are a regional bank, and our value lies in support of long-term business relationships. Especially consulting services. That will remain, and the other services will continue in parallel, with online banking and so on.

I: And how long has Sparkasse NÖ been working with George?

B4: For many years, we were one of the first, are also the best by far with George, because it runs very stable and has a lot of great techniques inside. Compared to others, who want to break through now and be similar to George, this has not been successful yet. We are the pioneers. I hope that this will continue, but this is all in the Joint Liability Scheme of the Sparkassen sector, not just us as a regional bank. We are attached to it.

I: Which products and client segments are most disrupted by FinTech firms in Central and Eastern Europe?

B4: The greatest influence is definitely in the standard processing. This includes payment transactions. That will also remain the biggest influence because you need someone in the special consultancies. At least for the time being, this cannot be handled. That will then become overgrown with artificial intelligence. Then more, more, more data will come in and will be able to handle difficult things, such as a housing loan with special requirements. But in the next few years or decades, it will probably also be the case that all this will, of course, be limited to payment transactions, simple bank loans, and simple investments.

I: What factors are essential to operate successfully daily as a bank? In dealing with customers, for example.

B4: Yeah, we score. It's different. Some banks go broadly, and of course, they have many, many special customers, who just do their business online, so to speak, digitally. And of course, we have a lot of customers. With us, it's more like we have fewer customers. But we have special customers, but of course, we also benefit because these customers don't discuss every cent with us. Of course, you already have that with the online banks, who try to pay little or nothing. The question will also be in the future whether then, at some point, they will come and say okay, we want to earn money now. And then, at the latest, they will, of course, have the problem that the customers, some of whom are not so wealthy, will not want to pay so much and may then jump to the next bank. This means that online banks are immediately interchangeable. You close the account there and open the next one here, wherever it is cheapest. And the worst thing is, of course, we also notice that there are those typical savings book interest customers who look closely to see if they get an eighth of a per cent more and if they get that more at another bank, then they change. And we don't want to have anything to do with these kinds of customers anyways, because they are not long-term customers, it's only a matter of the cent, and they are in good hands with the online bank.

I: What are the advantages and disadvantages of traditional banks compared to FinTechs? Where is room for improvement?

B4: I was once told by one of the leading app developers in Austria. He said, "I don't understand it at all, we open an account with FinTechs and put ten or twenty thousand euros on top of it. You don't know how long the company will exist. Then the money is gone." And he told me that these online banks simply have customers who now receive a salary, like his programmers, for example. They get a salary that goes on top of it and is spent again by the end of the month. That means plus-minus zero. It's actually a standard business for him. But he will come one day and wants to save up some money. He might do it online if you offer something. This is the standard business and this standard business for standard customers. As long as you are a standard customer, you will be happy. But as soon as you need something more difficult, you just have to make sure that you have another bank, for example, a regional bank. Or those that have consultants online. And you don't really know what it will be like in the future. I'm not quite sure, maybe it won't be an issue in 30, 50 years, but in the near future, you want to go back to these personal consultations. And we realize we have a huge rush at our bank. People don't want to be a number in a big bank. And it's even worse in an online bank. You don't have anyone on-site, so you really have to know your way around. And the generation now and even the older ones aren't like that yet. But the young ones, the ones just growing up with it, will just do online banking.

I: What are the advantages and disadvantages of FinTechs over traditional banks?

B4: The advantages of Fintechs are, they are definitely cheaper for customers. You don't have that many people sitting there. You don't have to pay for the salaries. We have a huge sector of employees we must pay. And that's certainly a huge advantage. You can pass it on to the customers. But of course, they are limited in their repertoire. The advantage is simply that you can react faster because you can reprogram if there is something and so on. Yes, these are the advantages in general.

I: And do you think it is better to work with FinTechs or to compete with them and just continue with the classic business model?

B4: Well, I would work together in areas that can be standardized because they are already ahead of us in some areas. And it will also be the case if you ask me that in the future, FinTechs will partly be brought into banks or bought. We have a development department at Erste Bank, for example, and work closely with FinTechs. This goes hand in hand. If you talked to Max Nedjelik, he works closely with Sparkassen in Germany, for example, and they have implemented his systems. And that will also be the case in the future. That means the FinTechs will bring out systems, and the banks will try to buy them. Maybe at some point, it will be the other way around, that the FinTechs are too big and strong, that they will buy out parts of banks, for example.

I: And with which types of Fintech companies would it make a lot of sense to work with?

B4: Well, depending on where the bank has some catching up to do. We are currently developing these simple investment products, for example, and also financing products. And it would make sense if there were FinTechs that already offered something like this, online loans, for example. That would make sense, for example, because they have the know-how and you can buy that, so to speak, or you simply buy the service that you simply imitate.

I: And how exactly does the cooperation with George Labs and Sparkasse work?

B4: The employees of the Sparkasse are trying to adapt to George, as much as possible, because in the future, we will be prepared for the fact that we can do a lot online. As I said, it runs parallel. Every customer who enjoys our advice should also have George and dispose of it and do his things on it as much as possible. Until it is no longer possible, and then he will consolidate the consultant.

I: And what factors are important to Sparkasse Niederösterreich when it comes to deciding to work with a FinTech company or not?

B4: Well, you just have to be ahead of us somehow, you have to know more and be able to offer more, then that would be interesting for us. Yes, and of course, the interfaces will be relevant. If FinTechs can match as many interfaces as possible, then it will also be a technical problem. If the technical problem is solved, that is one thing. And the second thing is that it must add value for the bank, or it must be complementary. It is also possible that we forward them to use an app, for example, where they can do certain things with a FinTech or come back to us when they need advice.

I: And what is important for a successful collaboration?

B4: Flexibility in any case. Durability. It can't be that the FinTech comes up briefly and then disappears again. This means that we offer our customers a great deal on our platform or a new product that they want to use. A FinTech can suddenly be closed again because it was a small company. It must be able to perform quite a bit.

I: Are current laws for the financial sector helping or hindering innovation in financial institutions in Central and Eastern Europe?

B4: Well, we still have the problem that banks, really traditional banks, have old structures and have to proceed according to old guidelines and follow all these Basel criteria. That means, of course, that you have to have the customer sign marginally. So, there is no such thing as a checkmark as with the FinTechs. But we are now trying to get there. That is simply our big disadvantage. With the FinTechs, you can open an account immediately. It's relatively quick. There you accept the terms and conditions with a tick, and that is not allowed for banks at all. That means we have to leave this structure, and then we will move faster. Until half a year ago, I had to give a customer who opens an account 30 slips of paper to sign, and if you compare it to FinTechs, then we have a lot of catching up to do. If we can get that down, it's not going to be easy for FinTechs. That's just their advantage, they are flexible, and everything can be presented quite easily.

I: What is the role of the government? Does it support the FinTech initiatives?

B4: Yes, it will. With Schramböck, it worked quite well last year. She was present at many technical achievements and at all these events, at these online events. She already supported it then. A lot is already being done. They also want to support it. And the only thing that is not yet so supported is the conventional banks. It's more in the direction of FinTechs. We need them, but we have completely different criteria that dictate that we work according to certain standards. That is just softened up and easier still. But I must say, not much has happened yet. If, for example, N26 goes bankrupt now, it will be very, very difficult, because there is an incredible number of customers there. From one day to the next, they have no advisor, and for them, it still works with clicks, so it's relatively simple. We have had these regulations for years or decades, sometimes centuries. That is something different.

I: Do regulatory issues impact the relationship between FinTech companies and traditional banks? If yes, in what way?

B4: Well, definitely. At the latest, when certain parts are implemented or when we work together, other rules and standards are necessary. At the moment, for them, it’s easier. But as soon as you work together, it will become more difficult, because just. The regulations should actually be the same. But of course, the banking licenses are also different. They simply have a simplified one, and we have a very difficult one because we offer a lot of things. Some FinTechs simply offer payment transactions, such as credit card companies, for example. If they work with us, then we naturally also take into consideration in which area they operate. And this area must be secured in the same way as we have always secured it. It is feasible.

I: How does the Corona crisis impact the financial sector, in particular, Sparkasse NÖ?

B4: Well, we have to distinguish. We in Vienna have different customers than we do in St.Pölten. In St. Pölten, there are a lot of commercial companies and a lot more customers. We in Vienna have a rather special position because we tend to do special consultancies, these special consultancies usually have wealthier clients behind them. We actually continued to work as normal in Corona times, with certain security measures. But we have continued with the business as usual. In Sankt Pölten, of course, a lot of deferments have already been made. A lot of promotional loans have been granted to long-established companies. It may have affected us for a short time, perhaps a month or two months, until this was settled until we simplified all these procedures. In the beginning, it was, of course, difficult from one day to the next to make an incredible number of promotional loans until we managed to simplify our own procedures. How can we do this quickly and efficiently? But what was never done, and it is, of course, a huge problem. Our criteria, the whole criteria for granting loans have never been softened, have remained the same. In other words, we always had to make loans according to the banking criteria. And that is a problem that you hear in the media. That one or the other bank simply did nothing or did not want to make a blank credit. We are not allowed to do so, we are dependent, and that has never been softened. So yes, it has already hit one or the other.

I: And how can banks now recover after the crisis? How can the challenges be overcome? Can cooperation with a FinTech help?

B4: Well, it's not a problem yet. That will only arise in the course of the next year. When the first defaults come and also, possibly many defaults will come. That depends on how much is or isn't subsidized. That will become clearer in the future. Reserves will have to be formed. Now, as I said, one does not notice so much yet. We are now going back to the usual business, a little more restricted, of course. But yes, it could be that many customers will default, and therefore, a lot of income will be lost. But I only think that a FinTech, for example, would not have been able to look after this clientele of commercial clients, etcetera, in Corona times. Processes have to be automated somehow because no one does that in FinTechs. There are only standard programs. The government should have come up with something. If we had 30 years later, there would only be FinTechs. But then there would probably be other solutions.

I: So, we've reached the end of the interview. Is there anything else you would like to add?

B4: No, nothing. If you have any questions, anytime!

I: Okay, perfect. Thank you very much!

B4: Yeah, no problem!

Expert interview 14	**Bank E (B5)**
Date and Time	5th of June 2020 at 4 pm
Location	Zoom
Name of Bank	Raiffeisenlandesbank Oberösterreich
Name of Interviewee	Alexander Staufer
Role in Bank	Department Digitalization and IT

Years of experience	almost five years at Raiffeisenlandesbank Oberösterreich

I: Thank you for participating in the expert interview about FinTech and bank collaboration. How advanced do you believe is the FinTech industry in Central and Eastern Europe?

B5: I think it's strongly evolving. I think it's not yet there where it could be. I think they are more advanced areas in the world. And when Central Europe is also including Germany or Austria, then I think there is a lot of progress. But I think we are not the leading place for FinTech innovations like China. I still think it's Silicon Valley with the Big Tech that is innovating the financial sector the most.

I: And in what way is digitalization in the finance sector affecting Raiffeisenlandesbank Oberösterreich?

B5: In a lot of different ways. Banking is like an immaterial business, it's like based on contracts, and then an immaterial good like money is transferred. So, all the processes can be digitized in a way. And the way the business is conducted is changing through the available technologies. So, the way banking is done is fundamentally transformed through digital capabilities. So also internally in like processing the necessary tasks that are required to do money business, but also the way the customer interacts with banking services is completely changing. So, we have like multiple. It's a very complex way to address all facets of digitization for a bank in total. So, you somehow have to prioritize what you want to do because there are endless opportunities. You can digitize the activities.

I: And how would you describe the business model of Raiffeisen?

B5: Of course, it's a universal bank with a strong retail brand. So, it's a very traditional bank that has stationary branches which are really like an institution in every village, in every city. So, this is like Raiffeisen, and you're used to seeing it offline. And, of course, we are coming from there. But also, we are offering all kinds of financial services. We are one of the, like Sparkasse, we are one of the two big traditional local branch banks in Austria. Not only in retail, but also in the corporate sector. We have the largest market share. We are basically one of the traditional big banks of the twentieth century. So, this is still somehow the brand, and it's in a small position today.

I: And does the current infrastructure provide FinTech solutions?

B5: Yes, there are a lot of links where we already use like FinTechs for helping us to deliver services faster or more efficiently or when you think of like the account categorization, there are already solutions in place where you can categorize all your transactions in your online banking account. So, this is done cheaper than we would have been able to do in-house in a way. You know this is something, you know, there it makes sense because all the banks in Europe have the same problem. So, there are a few FinTechs just specializing in this purpose. And so, they can cost scale this effort over 200 banks. So, for a bank, doing this individually is like, yeah, it doesn't make sense anymore. From a cost perspective, you just have to think about how you deal with data protection security issues that you really can be sure that no data goes outside of the bank and all these things when you cooperate with FinTechs. But of course, this is one example that shows that FinTechs are a topic that is having solutions that we can use in this case for cost reduction. But we are also using like solutions to create new customer where you, for example, like this account switching. You know, you can click on our home page, and you say, okay, you want to open an account in our bank, you can fully automate the transfer of your account from another bank to us and all the standing orders. They are also transferred, so you don't have problems that you pay your bills on time. So, we already have solutions also to use FinTech solutions to improve our customer acquisition. So, there are many different facets. Yes, of course, we proactively look and search for solutions we can implement. And of course, we have things, where we don't see a big problem to implement them, but sometimes it's also critical submission stuff where we really say, okay before we give this to a FinTech, we are going to do this on our own. So, of course, there are also these kinds of decisions made in our house.

I: And which products and client segments would you say are most disrupted by FinTech firms in Central and Eastern Europe?

B5: I think that the revolution is starting in retail. I think we see there the most dynamic in standardizing mass products like N26 is doing. Like these challenger banks are really like providing easy to use digital experience for really standardized services. So, this is something where we see, okay, their new technology is not based on any legacy systems and have a somehow advantage in providing cost-efficient solutions for retail customers. This makes sense, of course, and is also challenging us, of course, to find solutions on how to deal with these movements. And this is disrupted. This is one area, and I think there are a lot of different areas from the technological perspective, where we, as a traditional bank, have a very broad and deep business model. We are like offering a lot of different options, opportunities and services, and more services for corporate customers, but also for our retail customers. This is not like we don't offer you a product, and you use it, but you can individualize pretty much a lot of things. And this is, of course, more expensive. But there is actually FinTechs for this as well. But of course, we see that some FinTechs are able to focus on one of these particular segments with good technology and a good solution so they can pick out this special portfolio from us, and for us, this only would rent itself where like the overall costs, not in itself, maybe fully, but like sharing the cost with other like customer groups. And so, this is also a topic where we see, okay, this is challenging us. On the technological side, customers expect this technology to be in place. But on the other side, we don't have the number of customers to make it a solution that is paying itself of. There FinTechs have a chance to win.

I: And what factors do you think are essential to operate successfully as a bank daily?

B5: I think that you need to have your costs, of course, managed. You need to have a solid cost base. You need to somehow also say no to some product variations. We also have to focus our resources more effectively, because, on the other hand, customers want us to have the best online experience and the best offline experience, but they want to pay us like a cheap online experience. So, on the one hand, we have to allocate the resources somehow intelligently where we see we can make a difference. And where we see, okay, we haven't the best solution there, we have just the good enough solution, and we live with it. Because if we invested in all facets of a nice digital front end and a cool offline branch experience, this would be too expensive. So, we have to intelligently allocate our resources more than in the past because also the margins they put pressure on the number of resources you can allocate.

I: And if you compare traditional banks to FinTechs, what are the advantages and disadvantages of traditional banks like Raiffeisen?

B5: For example, N26, a challenger bank?

I: Yes. For example, like N26.

B5: For me, this is not a FinTech in itself. For me, it's really a bank that tries to use FinTechs to make traditional retail banking. So, this is a challenger bank for me. We can explore this question, of course, deeper. The advantages and disadvantages. Of course, we already have an existing brand name, and this also stays for quality and security. Yes, and trustworthiness. And also, we already have a huge customer number, which we are serving. So, we don't have to acquire new customers aggressively, which is also for N26, it's very hard to, like, make money off it. Because, okay, when you give a free account, you still need to make money in a way. And even though maybe they have a cheaper operating system overall, maybe because we have a more grown infrastructure that is more complicated to change things and make it more expensive to operate in a total. But, you know, you still have to earn money. And I think this is also in a challenging environment, also hard for N26 to give away a service that costs money for free. So, I think that there we have an advantage that we have an existing customer base against the challenger bank. And still, you know, even though our systems are maybe old, but they are working and, you know, you need the resources that you can run and manage them because there's a constant change requirement. Also, from the authorities, through like improved processes, make different reports, make different processes to issue loans. So, this is also not so easy for a challenger bank to, like, operate, because you also need the experts doing this. You know this is a highly specialized task. You need to find these people and provide them with an environment they stay long term in the company. This is really difficult stuff that has to be managed daily. So, we have the people ready, and they have to pay for a lot of money to come to them. So, this is also an advantage that we have them already like we have these things running. The disadvantage, of course, like maybe if it's really that there is a cheaper infrastructure possible. Like from the IT systems, then maybe they have a cost advantage in the long term. When you say you have cloud natives and you have some very standardized product portfolio that you can run maybe in the long term, cheaper than a traditional bank, which has a legacy system which has to transform itself with huge IT projects, to maybe also a cloud company, or maybe the strategy is not to become a cloud company. This is also a disadvantage that you know. They can start from zero and make just an IT infrastructure that's necessary for the banking right now. So, they don't have this past. They have to develop into the future. This can be a disadvantage for us.

I: And are there any other advantages or disadvantages you can think of when comparing FinTechs to banks?

B5: Now you mean challenger banks?

I: Yeah, challenger banks, but also have you heard of baningo, for example, or other FinTechs that are operating in the financial services industry?

B5: What is baningo exactly doing? I think I heard of them and I looked at their homepage, but I think I forgot what they exactly are doing.

I: They're providing an online platform, so you can get an overview of different credit and loan offers. They work together with Sparkasse, for example, and provide some solutions for them.

B5: Okay, that's a credit and loan comparison platform, or in general, a comparison platform. Yes. This is, of course, a topic for us. I mean, not everybody's checking its prices, but still, of course, there is a growing number of customers that are checking online what's the best rate. And they decide maybe for the cheapest one. Maybe this is also a strategic decision. If you want to be as cheap as maybe the cheapest bank in the market or you say, okay, we are not the cheapest, but we stand for quality and security and customer service. And you don't call like 10 hours in the service line so that, you know, we do not want to compete only over the price. So yes, of course, this is a topic, and we are carefully selecting where we list ourselves and with what kind of offers. So, this is also something we cannot prevent. The transparency is increasing in the market through digital capabilities and these kinds of companies that are providing this. We try to have an answer to it that we list sometimes, and sometimes we don't list. Sometimes we list just with a cheap product because we also have like a direct bank, bankdirekt, for example. They also offer a free account, for example. So, we list them on these kinds of pages.

I: And do you believe that collaboration or competition with FinTech firms, in general, is more beneficial for banks like Raiffeisen?

B5: I think you can't say it overall what’s best. I think you have to look at each business model, and I think some business models are really challenging us, like in a deeper, competitive way. So then, you know, you really have to carefully think about, okay, where do you want to stay in the long-term? And does it make sense to cooperate, or is this something you give away your market power to somebody else. So, these are like strategic decisions to be made. If cooperation is providing us with more benefits than losses in the long-term because every partnership has some benefits and some disadvantages, and you carefully have to consider it. In what area this partnership is going, what you want to do yourself in this area. And if the solution can provide you in the long run, with a better outcome. So, this is something you have to develop a strategic feeling. And sometimes it's really like something like this account switching service. This is not the crucial thing. Yeah, we are giving out the critical infrastructure, but this is a service we can plug into. So, this is also not challenging our business model, but this is easily added up to our business model. This is an easy decision to say yes, we're doing this. This is an advantage or makes switching easier. And we pay them for a successful switch. But, of course, when it goes like in other areas, maybe data exchange or something like this is involved or handing out like infrastructure that is served by a third party. Now, this is something you really have to carefully think about what this means for you in the long-term or in operating your business model and how this is changing your overall performance of the company. Can you switch back, or does this lock-in? Because switching back to your own solution would cost too much, so you really have to evaluate carefully if you should do this in this area. So, there are a lot of marketing decisions ongoing.

I: And which factors lead to a successful operation, do you think, between a FinTech and a traditional bank?

B5: The most FinTechs I know, for example, they don't try to compete on the same product than we do. Of course, there are challenger banks. Yes, this is a topic, and we lose customers. But still, not everybody is going to a challenger bank. And there are many reasons not to go there, and there are good reasons to stay with your bank. Even though maybe you have no free account, but you're paying for it, but you're paying for the others as well, they have to earn as well. You have even more cost transparency compared to the others. So, from security and whatever and customer service and so on. But most FinTechs are not like in this area. They are like offering services, for example, that adds to our value proposition. When you think of Finaco, I guess that’s the name or

FINcredible. This is something when you rent out your apartment. And you want to have a new tenant, then you want to be sure that, you know, they are credible and can pay for their rent every month. So, you can really assess beforehand, before you like visit with them, what sorts of time and money. You ask the tenant, please run a FINcredible check, so we know if you can afford the rent. We trust that you are qualified for me to invest the time that I show you to our apartment. So, they are doing this based on the PSD2 initiative that you allow the FINcredible to look at your account, and then they look back. Ah, you are on this margin. There is so much free income. You're paying for rent so much right now, so you can afford this new rent. So, then the landlord becomes the information and sees this person is good enough. They don't see the exact numbers, of course, but they just see this as a credible creditworthy customer. You can rent this out. So we are, of course, providing services in both directions. On the one hand, you know, the tenants need rent guarantees for like three months. So, we can provide the guarantee, and this is also a nice way to position this service in this interaction. And on the other side, we can charge the landlords. We choose this solution on our banking platform to get security over the tenant. So, this is exactly adding to our existing value proposition. And we have no conflicting strategic business model conflict. But the opposite way, it’s a really nice cooperation or partnership. So, this, I would say this is, of course, a great partnership. We wouldn't have developed this on our own, at this speed and with this price.

I: And what would you say are the challenges of a collaboration between FinTech firms and traditional banks?

B5: Yeah, I think it's always based on the business model. When we control it, and this is adding to our value proposition, and maybe we even earn with the solution, then it's, I think, very easy to cooperate, this is beneficial. But some decisions are substituting our own solution. Maybe it makes it cheaper, but who is operating this? Can we rely on this kind of FinTech to provide the service? And what does this in the long-term, this dependency on this solution means for us as a bank? Then this can also be a lost decision or something you say we want to run this process on our own because our customers expect it to be managed by us. Or we say, okay, we have to control this part of the infrastructure because this is critical, and nobody can provide this service in that way we need it, or we can trust in it. Sometimes there is a unit. There are bigger FinTechs already that have proven track record that they can do it. They have the service capacity when something's going wrong, that they are here. They are doing this, and they are managing this professional then. Even such a decision can go in the direction. Yes. This is, in the long-term, even more beneficial. But we don't do this on our own. We can focus more on core activities. So, it is also a decrease in complexity from the organization.

I: And would you say the current laws for the financial sector are helping or hindering innovation for financial institutions in the CEE region?

B5: On the one hand, of course, the CEE legislation is something that protects us, established banks, in a way because it is somehow complicated and you have to run all of these processes and document them and let them be audited and then the regulator comes and proves it. So, it is really, really, really expensive and really complicated to run a bank in this regulatory field. So this is something, this cost structure, you need, you know, a certain size to be profitable to, you know, manage this cost. This is really not to underestimate. This is necessary. And so, this is somehow an entrance barrier for new like challenger banks because, you know, every country has different legislation and different requirements. So, you also need to adapt your business processes. But also, your IT on this. This has to run automatically. And this, you know, from a prototype to a production-ready system, there's a lot of money invested. So, this is something you have to be able to manage, you know, in the long-term and that it is cost-efficient. So, this regulation is somehow, you know, helping us to. That doesn't make it so easy to operate the bank on itself. And I would say, on the one hand, I see it, that's also necessary because, you know, when you don't make your processes stable, you risk the money of your customers, you know, this is also consumer protection in a way. And most of the regulation is, in the end, protecting consumers and the overall economy. That is on the one side good, on the other side, I think, of course, it prohibits every kind of financial service. But this is also good because, you know, you need a certain quality and your state and care for that the services run reliable and in favour of you as a customer. But I think there are, like the overall EU legislation with PSD2 and also the processes that are allowed in this framework, I think this is enabling innovation in the financial sector. And I think there's a lot of potentials still there that this not sold or addressed fully. I think great solutions are being built in a huge amount by FinTechs. And we are really proactively searching for this kind of start-ups to integrate the solutions to us, to our services, because, as I mentioned like the solutions before, there is a real customer value created by the solution that we wouldn't have had without this FinTechs. So, we see this in this sense very positively. And I think that there is a positive impact coming from these regulations. And I don’t know if it's enough. You know, I see a growing dynamic, but which solutions will stay in the long-term is not foreseeable yet, so I can’t say that regulation is too restrictive or too open. We will see in the upcoming years what kind of solution and what reliable solutions will survive in this open area. And I think there's already a good opportunity to launch good solutions. And some of them we are already seeing, and we try to cooperate with them already.

I: What is the role of the government? Does it support FinTech solutions, do you think?

B5: Yes, I think that the PSD2 regulation, for example, is a showcase that regulation is really interested in enhancing innovation in the financial sector. So, the government is here in the lead, in the driving seat, to open up this financial sector. And I think this was the first huge approach to bring this legislation forward. And we will see how this will change the financial sector. I think there will be winners and losers. And it’s not sure who it is. And, of course, this is also affecting the legislation, of course, which players are winning, and which are losing based on the results of this bigger regulation. Yes, I think that that they want to foster innovation. When you look at the tokenization of assets, for example, you see a lot of things going on in this area. And this is, I think in the long-term, a must for an economy to be able to create these innovations. And I think as Europe, we are kind of lacking behind already in so many areas of digital businesses that I think this is also a chance to like to enable generic innovation here in Europe. And I think we are also following some of these topics and really try to implement stuff. So, this is, I think, a chance for Europe to build on innovation and then export it to the world. And it's not sure if we are fast enough or good enough to build this. But I think the regulation, the government shows the seriousness that they want to make this innovation happen in Europe.

I: And do you think that regulatory issues impact the relationship between FinTech companies and traditional banks?

B5: Yes, like PSD2 is a very good example of this kind of interaction that we have to provide the APIs that FinTechs can use our customer data and health services on top of it. So, this something maybe if the regulation wouldn’t have opened this or required this from banks. Maybe it would have hindered the innovation. Of course, this sort of puts pressure on us. But this is a good show cast that, of course, this is a conflicting area where it maybe would have been, in the short-term, more beneficial. No, we won't open. We don't provide the APIs when you're not proactive. But in the long term, also for an individual bank or for Europe as a banking sector or financial sector, it's good to open up earlier and on standardized means because we are forced to innovate faster and better. This is, I think, a good example that this is conflicting. But regulation is improving the need to collaborate with FinTechs.

I: And how does the Corona crisis impact the financial sector at the moment? For example, Raiffeisen, in particular.

B5: Yes, in many different ways. On the one side, of course, banks are getting a better reputation because we are there and are helping. On the other hand, we see that our digital channels are like used more like also older people are onboarding on digital channels because of this social distancing. And so, we see that also the traditional generation with our bank is more open now to this solution. So, this shifting, I think, is something lasting that we really raised our digital service channel usage overall. And the other hand, of course, this is risking us because there are new insecurities, uncertainties in the market, and also our credit portfolio, and everything is more under pressure. And of course, this is also affecting our earning possibility or our solid running of the company. So, yes, there is such as two facets, but there are many more. But when it goes into digitalization or digital transformation, we see the Corona is like a huge enabler, to make things happen that you would have needed back five years ago. This is something that is also helping us in a way or forcing us to make solutions faster. So, this is good in a way. And it's also like we are reinventing ourselves in many ways, because also the way we work together, like everything online, Home Office and all those things, you know, is most likely also from the working a culture change. And now, it seems to be more normal and more accepted. And, you know, also the prejudices. I think they decreased. So, this is more accepted now to not be in work, but still, be productive. So, I think, yes, it changed a lot. The banks internally, but also the way customers interact with us.

I: And how do you think in traditional banks get back on track after the Corona crisis?

B5: This depends very strongly on the lasting effects of this shutdown and the overall economic development, I guess, because if there is really a bankruptcy increasing a lot, then I think this could affect the banking sector, of course. But right now, I think in Austria, we don't see problems right now. I think everything kind of seems not to be too dangerous. So, I think the overall tendency is that this won't be that damaging. I guess so, this is also something from the resource allocation topic because you can just spend what you're earning. And when you lose on your credit portfolio, you have less to invest in digital innovation or in all kinds of innovation. And this is affecting a lot the progress of the bank. So, if it's more, it's not too deep. But you see, the people are switching to digital channels. The budgets for digital innovation will rise because these channels are getting more important through the Corona crisis, and they will last.

I: Basically, we reached the end of the interview. Is there anything else you would like to add, or do you think everything has already been mentioned?

B5: For me, the term FinTech is very broad in a way that's difficult for me to grasp all the different aspects of it, because on the one hand, as I told, that we understand the challenger banks with this term. And this is like, they compete on the same front as we are doing. But FinTech, I think overall, it is like also providing technology solutions that are not competing on our traditional fronts. So, this can be like additional services, and there are so many features that FinTechs do that it's not easy to answer the questions like overall, that I don't miss out on anything important.

I: Yes, it's a very broad subject, that's for sure.

B5: Yes. Very interesting topic. So, I think something that there will be a lot of innovation, and it's an open game what kind of solution will survive and how banks will look after all this innovation, also in the PSD2 area will look like afterwards. And I think every bank is thinking about it, and we are all not sure how this will look like. We all want to figure out how the new bank will look like, even though maybe we ask for a rate, as a “Kontoführungsgebühr”, but also be a relevant bank for our customers also in the digital age. And how we can support them the best. And I think we have solutions there, but we are constantly thinking about improving this. And PSD2 is also changing the way we are doing it. So, it's a very challenging, intellectual, and also operational topic for a bank. So the topic I think you chose for your thesis is highly relevant, and you will definitely find a job with this.

I: That's good. Yeah, I will look after my thesis for the next job. Then we'll see what happens.

B5: Yes. Then you can call me if something is open.

I: Okay, great. Thank you very much!