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Factors affecting generation Z acceptance towards Fintech services

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ABSTRACT

With technological development and a rapidly changing environment, new financial institutions - fintech (financial technology) appeared in the industry. It changed the ways the financial companies used to, which caused a change in customers' behavior and expectations from banks. This challenged traditional banks. The generation Z is the biggest generation and they are the least studied in the finance environment. This research aims to analyze perceptual changes in generation Z towards fintech and bank services. To answer the main research problems, a survey was conducted and shared among gen Zers. The data was analysed using logistic regression and descriptive statistics. The questionnaire showed that generation Z had the highest adoption rate of fintech services among other generations. Despite this, the majority of gen Z prefers banks and they trust them more than fintech. It is interesting to emphasize that the most common answer toward fintech was neutral, which indicates yet undecided opinions about fintech services. These opinions will be formed in the next few years. The gender gap still exists and males are more likely to switch to fintech services, but the gap is radically decreased in the young generation. The consumers' choices are affected by bank and fintech relationships, which underlines more involvement and awareness about the services they choose. Even though participants trust banks more, it does not seem to be the main criteria of choosing the financial service anymore. Generation Z values innovation, low fees and better experience more than trust in the system.

Keywords: Generation Z, Fintech, Traditional banks, Digital disruptions.

INTRODUCTION

Digital technologies are advancing more rapidly than any other innovation in our history. It has touched every aspect of the world. From history, it is known that the financial industry is one of the pioneers of early adaptation when it comes to new technologies. ATM, Debit/Credit cards, banks are used to break their walls from the inside. The evolution of technological innovation continued, but it never challenged banks' business models. Meanwhile, financial technology companies known as Fintech entered markets. This new era has challenged banks' existing structures since the source of innovation is coming from the outside. On the one hand, fintech has developed new technologies and services that impacted all sectors of financial service markets. On the other hand, it changed the customer's behavior and expectations. The growth of the fintech industry made some entities and members of financial services strengthen the common belief to see Fintech as a threat to traditional banking systems. At the same time, others see the opportunity in this challenge and are trying to leverage fintech. Generation Z is the biggest generation now, most of them will turn 18 in the following years, which makes them a very important segment for banks. Many banks are using age as the segmentation of their customers. However, there is a lack of research about how young customers, specifically generation Z perceive this disruption in the finance industry. According to EY, the main difference between generation Z and Millennials is their attitude towards the problems. Millennials who are self-centered are looking for solutions in the companies, while self-aware Gen Zers are creating their own solutions. The young generation is the most technologically-driven generation, it makes them more open to changes, therefore they are more likely to use new technological services even in finance. They have been born in the era of variety, where banks were not the only option in the financial industry. This generation has never seen the non-digital world but has grown up during the Global Recession. That is why it is expected that the young generation has different perceptions and attitudes toward banks and fintech, which requires more research focused on generation Z. The research aims to analyze perceptual changes in generation Z towards fintech and bank services. This paper answers the following questions:

RQ1: What are the factors that influence an individual's choice for the use of fintech vs traditional banking financial services?
RQ2: What are the generation Z perceptions towards fintech versus a bank?
RQ3: Does the relationship between fintech and banks affect consumers' choice?

To answer the above-mentioned questions, the author chose the quantitative research method, in the form of a questionnaire. Data was collected based on the survey answers, which were shared through online platforms and were encouraged to share, which resulted in background diversity and decreased the bias factor. Logistic regression and descriptive statistics tools were applied to analyze the data. Descriptive statistics helped to detect general patterns and relationships between different variables, while logistic regression strengthened the importance of some variables and showed which factors induce generation Z to use fintech services.

The research starts with an overview of the banks. How they started, and what environmental factors influenced changing the financial industry. It introduces the concept of fintech and its trends in today's world. This chapter also reviews and analyses the opportunities and challenges of collaborating banks with fintech service providers. The last subchapter, in this section, is devoted to introducing customer behavioral changes and is preparing the foundation for the research. This is followed by a methodology chapter, where the questionnaire preparation, its characteristics, and analysis methods are described. The next subchapter, which is descriptive statistics, analyzes the survey results and prepares the figures and data for the discussion. Follow up regression part goes into a more detailed analysis. In the discussion, different perspectives and different views are explained and analyzed, which helps to identify some patterns of the generation Z attitude. The discussion of the survey is summed up in the results part. Last but not least, the conclusion summarizes the whole paper's important aspects.

1. THEORETICAL FRAMEWORK

This chapter describes banks and fintech functions in society. It analyzes the relationship between each other and the challenges they meet. It also deals with customers' behavioral changes.

1.1. Overview

Banking has been around since the formation of the first currencies. For centuries banks have played a fundamental role in society by acting as a critical financial intermediary. It is the only financial institution with the legal authority to receive public deposits and to provide credit and payment services and make guarantees on its own account (Finanstilsynet 2016). Besides its primary duty to make everyday finances much easier for a complex economy, the banking industry serves a core economic function. Creating funding liquidity, providing safekeeping services, processing data – these core financial functions give banks a higher purpose, but this true intent of banks requires delivering of these services in a manner that exceeds customer's expectations. Banks' prosocial goal goes beyond the usual business objectives and pushes the creation of a corporate culture that fosters trust in the institution. At the point when the higher purpose is the referee of all choices and decisions, the bank's culture is constantly reshaped to satisfy and exceed the evolving needs of the consumer. (Thakor 2019)

Years of Global financial crisis (GFC), 2007-2008 were crucially important for the banking sector. Besides losses and changes of the past and that time current balance sheets of banks, it had a massive influence on the banking industry's future state. The recent financial crisis has changed the loyalty, trust, and satisfaction of the customers (Skowron, Kristensen 2012). The most critical deficit in the financial system is trust, and lack of it can undermine the system as a whole. As sometimes, trust is referred to as knowledge or informational capital, when the trust is lost, so is knowledge. According to the General Social Survey (GSS), trust in the United States has declined from 58 percent (Civic culture survey of 1960, Almond and Verba 1963) to 33 percent in 2008. Banks around the world should try to regain the trust of people. (Uslaner 2010; Marcus 2012)

Post-crisis regulation expanded banks' compliance obligations, which caused increased regulatory capital, which accordingly influenced the capacity and ability to originate low-value loans. The new standards, development of recovery strategies increased bank costs even more. Besides the 'battle' between banks and society, and shaken trust towards the banking sector itself, people started to trust technology and technology companies to handle their finances. (Arner *et al*. 2016, 23)

The perfect vacuum of innovation was created in banks. After the credit crisis of 2008, Financial technologies, widely known as Fintech, came into the picture.

1.2. Fintech and trends

Financial technology – today is often seen as the marriage between information technology and financial services. The term's origin can be traced to the early 1990s, during the Financial Services Technology Consortium initiated by Citibank to support technological cooperation. There have been three phases of Fintech: Fintech 1.0, 2.0, and 3.0. (Arner *et al*. 2015) The main focus of this research will be on Fintech 3.0, after GFC in 2008. Fintech has two significant elements: first, innovative and technological development and second, it stresses out the consequences of the traditional financial industry. As discussed before, fintech companies actively started to develop as a separate phenomenon. The Basel Committee on Banking Supervision has suggested the four main categorizations of Fintech innovations (BCBS ... 2017): Credit, deposit and capital raising services, Payments, Clearing and settlement services (retail & wholesale), and last but not least, Investment management services. The fintech industry has evolved and advanced. Over the years, fintech companies have generously extended their services in the fields generally covered by banks. Industry no longer consists of only start-ups but established companies too. Because of the diverse character and different definitions of Fintech, it is difficult to estimate how big an industry really is; however, one of the valuable measures is venture capital (VC). In 2020 global fintech investment reached $105 billion (KPMG 2021). Mckinsey & Company (2016), a multinational consultancy group, tracks more than 2000 start-ups that provide conventional financial services and reports that there are as many as 12000 fintech companies out there. The adoption rate of fintech services has changed dramatically from 16% in 2015 to 64% in 2019. In developing countries like China, India, Russia and South Africa the adoption rate is more than 80%. Fintech adoption rate increased (more than 70%) in developed countries as well, reflecting the development of open banking.

The most commonly used fintech category in 2019 was money transfer and payments with an adoption rate of 75% (meaning consumers using at least one service in this category) after comes Insurance with 48% (changed by 40% from the fourth place in 2015), third place with the adoption rate of 34% goes to savings and investments, and least popular services budgeting and financial planning (29%) and traditionally on the last place borrowing (6%) (EY 2019). Fintech is becoming too large to ignore.

1.2.1 Fintech services

To better understand what fintech gives society and why did it grow so fast, it would be good to look into details about the services it offers. The most disruptive scope of fintech in payment services is cryptocurrencies. Cryptocurrency is a digital asset, which has the role of medium exchange, often referred to as virtual money (Wikipedia 2021). The most famous crypto is Bitcoin, which exists already for more than a decade. While some people see Bitcoin (BTC) as a currency, others see it as a financial investment. According to Statista (2021), the BTC market capitalisation reached $1Trillion in 2021. The technology that Bitcoin is backed up by is called a blockchain. This technology is decentralized, unlike any traditional banking system, and it removes the need for a trusted financial intermediary. Blockchain makes peer-to-peer transactions possible, which means transactions are independent of the banking system. This brings us to the service in which customers are mostly aware of – money transfer and payment, only 4% is not acknowledged in these services (EY 2019). The most commonly used service in this section is Peer-to-peer (p2p) payments, non-bank money transfers, and store mobile payments. The global p2p payment market has reached $1,845.29 million (Global 2020); considering the fact that the service is ‘fintech invented’, the figure acquires more important meaning.

Insurance technology also called ‘Insurtech’ is now gaining momentum, with almost half of all customers accessing premium comparison platforms, feeding details into the insurance-linked devices, or purchasing peer-to-peer insurances (EY 2019). The basic economics behind fintech in insurance is the connected smart devices in households, vehicles, and worn as personal gear to collect massive quantities of personal data about individuals. As a result, insurance firms will be able to use ‘Big data’ to quantify risk more accurately and dynamically than they do now. (Thaker 2020) One-time small Insutech industry now is rapidly expanding, and it reached $ 2.72 billion in 2020 from $ 532.7 million in 2018 (Markets 2018; Grand 2021).

Researches show that Savings and investments have immense growth potential. This sector of the fintech market has exploded in popularity, new start-ups, as well as companies, have seen increased activity and new consumer sign-ups. (Consumers 2017) For example, Robinhood, one of the popular trading app's numbers of users in 5 years, grew from 1 million to 13 million active customers (Businessofapps 2021). Fintech seems to have a massive impact on how we trade and invest capital and the provision of financial advice. The term 'Robo-adviser' refers to the service that provides automated, algorithm-based portfolio management advice. The service uses the same program as human advisors, but they are less costly (Consumers 2017). Investors that use 'automated investment' gain benefit from diversification, resulting in higher yields and reduced uncertainty. (Thakor 2020)

Budgeting and financial planning are services that help customers to manage their finances. Personal financial management programs put together a user's account balances, card spending records, credit ratings, and other relevant financial details from different outlets into one location. They bring value by using analytics and data visualisation to give users a view of their present financial situation, predictions about how things will evolve in the future, and recommendations for improvement, such as moving to a cheaper credit card rate. (Consumers 2017)

Even though customers are the least familiar with borrowing services of fintech, lending is a significant sub-sector. According to a World Economic Forum report, customer lending accounted for 27% of global FinTech funding, while business lending accounted for 16%. (Consumers 2017) EY model of fintech categories based on adoption index includes P2P lending in the savings and investments, but since in general, it is a connection between borrowers and lenders, I will discuss it in the borrowers category. Between 2008 and 2013, banks' lending capability shrank due to increased risk aversion at a period when economic growth had slowed. That was the turning point for peer-to-peer lending, from 'niche', not part of the financial world, it became part of the fastest-growing segment in financial services (Nasdaq 2016). P2P lending is best understood as a form of debt-based crowdfunding, as it is a combination of crowdfunding and marketplace lending. Unlike traditional banks, P2P loan matches lenders and borrowers directly through online auctions in which bids and transactions are matched until the loan is fully financed. Platform-based data tools enable reduced transaction costs in matching lending demands with investment opportunities, resulting in smaller loan sums and splitting of large loans. (Fenwick *et al* 2017)

1.3. Challenge or Threat

Consumers are more aware of the services they are using, and are more involved in the system, which gives the reasons to think that the relationship between banks and fintech might affect consumers' choice of service. The technological revolution allowed banks to challenge the traditional financial institutions by leaving only two options to either develop internal capabilities or collaborate and invest in Fintech to remain competitive (Lee, Shin 2018). According to Forbes 2019, 32 % of the surveyed banks see Fintech as a threat or a competitor. While fintech is increasing and growing, banks are the only ones who are losing profit and customers. Recent studies show that fintech is responsible for 24 % of banks' loss of revenue (Daqar *et al* 2020). At some point, being a big company meant more security - 'too big to fail', but in the rapidly changing environment as digital innovation is, too big associates with complex corporate structures and less flexibility. While banks have always been the main financial institutes that cover all the services, fintech's main advantage is focusing on niche markets. As The Economist intelligence unit (2015) suggests there is a perfect match between banks' weaknesses and fintech strength and vice versa. There is no doubt that digitalization offers many opportunities to banks, however, the majority of European banks' proceedings still are not digitized and 90 % of them invest less than 0.5 % of their cost to digital initiatives (Mckinsey 2014). For financial stability in the banking sector, one of the key factors is IT innovation, which also defines the position towards its competitors (Drasch *et al* 2018). Today technology defines more than financial stability. Information technology made every industry cheaper and more efficient, except the only financial intermediation. The unit cost of financial intermediation (ratio of the income to the quantity of intermediated assets) in the US has not changed for the last 130 years and it is about 2 % (Philippon 2015). There is a clear picture that banks need to get involved in digital innovation, but some innovations are quite risky and costly. As already mentioned, banks' main focus stays on their core functions, therefore they do not have employees and time to dedicate only technological innovations. Based on the mentioned reasons outsourcing is one of the major benefits of partnering up with fintech. As the survey showed a majority of banks who have already partnered up with fintech emphasize the fact that using fintech and its Application Programming Interface (API - is like a software intermediary, which makes it possible for two different parties to communicate with each other) is faster and greater than their internal resources. (Klus *et al* 2019) More extensive regulations, organizational complexity, a big number of stakeholders make it impossible for traditional banks to foster innovation fast. To adopt new technologies they need to change the whole ecosystem (Hornuf *et*

al 2020). It requires a lot of financial and managerial resources as well as it consumes a lot of time. Moreover, banks' main focus is not only on advanced ideas, but they are interested in solutions too. As many cases show collaboration with fintech accelerates the foster of innovation. Fintech's focus on solving problems, smaller size, and not having traditional deep-rooted structures makes them more efficient, faster, and safer. (Klus *et al* 2019) Banks' business models were not defined for today's fast-paced and tech-savvy customers. On the other hand, fintech created flexible platforms that were designed mainly for a fast-paced environment. There are two most probable scenarios - the first scenario, banks continue to believe in their business model, therefore fail to adopt and the second scenario, they see the need to embrace innovation, inside their business model. (Chishti, Barberis 2016) For the second scenario, collaborating with fintech seems to be very efficient as already existing cases show. One of the most beneficial factors seems to be a different view and mindset of fintech companies. It helps banks to consider all the possible approaches, to recognize, and lastly to launch new business models. In some cases due to the unpredictable nature of the future, banks have fear of missing out on any opportunity, so they desire to establish new business models for the future. To be ready for this kind of change, the mindset of the workforce is very important, collaborating with fintech can push development. (Klus *et al* 2019) All the points come to the main goal - competitive advantage. The question is if collaborating with fintech is a competitive advantage or a competitive disadvantage. Banks can be given the select rights to use a particular license or application, allowing them to remove competitors at will. In some cases, it gives a bank the possibility to directly influence the product development and service strategies of fintech. (Hornuf *et al* 2020) The most significant advantage would be added customer value. Fintech usually offers a different, more customer-centric solution, which will help banks with the additional potential of gaining profit. (Klus *et al* 2019) The main motive for banks to collaborate is to go down to the learning curve. They are learning how to adopt new technologies fast and more efficiently, how to develop their business models for future flexibility, and based on all of these criteria how to gain a competitive advantage. Fintech's different approach and thinking made the 'fintech revolution' possible, so banks need to learn their way of thinking and break the walls of existing processes (Ibid.,). Based on their motivation banks choose the partnership type. There are four main types of cooperation: Alliance, acquisition, Incubation, and joint venture. The most efficient and used type of cooperation so far seems to be Alliance (72 %). Within this cooperation banks and fintech share knowledge and resources for the common goal. (Drasch *et al* 2018)

1.4. Customers' behavioral changes

As mentioned above, for the banking sector customers' needs and expectations are crucially important, especially today, in a customer-driven society. It is the era of the educated consumer, people are much more knowledgeable about the goods and services they want to buy today (Parise *et al* 2016).

Fintech played an important role in transforming customers' expectations and forever changed traditional financial services. Everyone in the marker understands that a stronger emphasis on the customer is necessary. According to PWC (2016), 53% of banks consider themselves customer-centric, while 80% of fintech believe that they are providing customer-focused services and products.

Fintech addresses changing customer expectations with dynamically different product concepts and distributions. One of their advantages is to pick some segments, and based on them they create very narrowly defined, yet highly efficient solutions. (Ibid.,)

Consumer segmentation is critical, the first step in creating effective marketing campaigns in the face of rising business trends, as well as ever-increasing customer satisfaction. One of the variables in the customer's segmentation is age. Since consumers' preferences and desires change dramatically by their age, this method makes it possible to measure evolutions of customers' desires (Ionut 2017). It makes it easier for banks to address customers and create a more personalized experience.

According to an EY report in 2015, the fintech adoption rate (respondents who were using more than 2 fintech products) was following - the first place with 25 % were people age 25 - 34, next in the list was dominated by 35 - 44 old users with 21 %, and third place generation Z (18 -24) with 18 %. Numbers change radically in just a couple of years. Millennials and Gen Z are the most aware of fintech (respectively 48 % and 38 %) by 2020 (Daqar *et al* 2020). Gen Z surpassed millennials in 2019 and became the largest generation, comprising 32 % of the global population (Spitznagel 2020). Gen Z has the highest adoption rate in technologies and their financial awareness is surprisingly high, it indicates their financial responsibility compared with millennials (Daqar *et al* 2020). The study shows that the younger the bank client, the less she/he sees relational advantages, switching expenses, and efforts of service recovery as switching

obstacles. They are more likely to consider the benefits of alternatives. Consequently, regardless of the time period, young consumers are more likely than old consumers to terminate their partnership with their current bank. (Tesfom, Birch 2011) Considering these facts gen Z is becoming significantly big and important customers for banks and they can not afford to fail to meet their demands and expectations.

The role of fintech is becoming an important factor in gender and country perspective. The gender gap in finance has always been a problem. They have lower rates of bank account ownership, are less likely to manage household finances, and in general less involved in finance. Recent studies show that the difference between having a bank account between females and males is 7%, while the Fintech gender gap is 8%. Gender gap and analysis of it is important because fintech is considered to be a helpful tool to close the gender gap in access to financial services. (Deming¨u¸c-Kunt *et al* 2018; Chen *et al* 2021)

It is believed that fintech is used in developed countries more in the United States, United Kingdom, European Union, especially in the Nordic countries. It is also considered that fintech is the most needed in the countries where technology is the least developed. (Fintech and finance 2019).

2. METHODOLOGIES AND DATA ANALYSIS

The aim of the study is to determine the factors and reasons that affect generation Z's (1997 - 2012) preference between traditional banks and fintech services. The data is expected to be different from the previous generations since generation Z also known as Zoomers are digital natives. To explore reasons behind their attitude and usage of different financial institutions a quantitative research method in the form of a questionnaire was chosen. Minors under the age of 18 are not legally eligible to open any kind of financial account and they have a lack of knowledge and interest in this area, therefore the main focus of the research will be zoomers who are 18 years old or older.

The questionnaire is designed by the author, reasons and variables are collected based on the previous studies, researches, and reports (The questionnaire is available in Appendix 1). Homogeneity of data caused by the limitation of age would therefore be represented in this case by dimensions such as "source of income" and "education level", therefore it is important to collect data that will diversify the backgrounds of participants. For this purpose the questionnaire was distributed through university channels, social media, and international survey sharing platforms, therefore participants have a great variety of backgrounds. Moreover sharing the questionnaire was highly encouraged, which decreased bias factor and increased diversity. The sample size is 97. The questionnaire had two paths, with slightly different questions based on if a participant was aware of fintech services or not. To avoid tautology participants who are not aware of fintech services will be mentioned as the second category of participants. Two different paths were needed to analyze different perspectives of participants who have already heard or used any fintech services and participants who have not. The questionnaire was constructed with three different main parts. The first part was about individual characteristics such as age, gender, source of income, education level, country of residence, and financial background. The second part's purpose was to identify the factors and preferences of services and institutions of participants. Within the survey, Likert-scaled questions range from Strongly disagree to Strongly agree (5 levels) were used. The last part mainly identified the general attitude of young people towards financial institutions.

Descriptive statistics were used to describe the tendencies and patterns within the data. To define the factors that influence young consumers to switch to fintech services, Logistic regression was

used with the dependent variable of bank/fintech, and every statement about banks services that participants ranked using the Likert scale (level of trust, ease of use, low fees, different product and services, online experience, quality of service, innovative products, high-speed service, control over finances and opinion of other people), age and country category (developed/developing) as the independent variables. Because the dependent variable is binary, and the author was interested in identifying appropriate predictors as well as their directions, logistic regression was chosen. Most features are Likert-type data, which makes the relationship between dependent and independent variables more complex. Another logistic regression analysis with the same dependent variable, but different independent variables plus the level of willingness to become a customer after partnering up with fintech. A big number of independent variables was avoided by the stepwise regression (backward elimination). The best model was chosen based on the lowest levels of AICc. One of the disadvantages of stepwise regression is that if the variables are highly correlated not all of them will end up in the final model. That is why the author decided to use two logistic regression analyses.

3. RESULTS

3.1. Descriptive statistics

All the participants' age is from 18-24. Early ages 18 and 19 are the least among participants, but other ages have roughly equal percentages. Among participants, there are 58 % of females and 40 % males. 51% of participants' main source of income is salary, 31 % family support, and the other 28 % is divided for scholarships, grants, student loans, and a combination of different sources of income. Educational background is quite monotonous, the reason for this is the age limit. Only 1 % has not finished high school, the majority 61 % is acquiring bachelors, 15 % masters and 15% is finishing high school. 100 % of participants have bank accounts. If we compare it to the number of unbanked adults in 2014 and 1.7 billion adults in 2017(The world bank 2017), it shows that the number of unbanked people in generation z will be quite low in general. 72 % of participants are aware of fintech services, moreover, 10 % think that they may be familiar with fintech services, versus only 17 %, who are not aware of fintech services. Among this 82% of participants who are aware of fintech, 68 % are users of the fintech services. The adoption rate of fintech in generation Z, based on this questionnaire is a bit higher to compare the global rate which has grown to 65 % for 2019 (EY 2019).

The second part of the questionnaire is focused on the reasons and preferences between fintech and bank services. It was determined mainly with the Likert scale questions. Participants were asked to indicate their opinion on how much they agreed or disagreed with the given statements. Participants were asked to indicate their opinion on the above-mentioned statements for banks and fintech services. Second category participants were only asked to denote their opinion only on bank services. At this point, participants trust banks more (with 70 %) than fintech (with 50 %). It is interesting that 23 % more participants feel neutral about trust in fintech services. The ease of setting up an account seems to be a fintech trait rather than a bank. 25 % of participants think that bank accounts are not easy to set up, while 16 % think the same about fintech. According to recent studies fees are the most important factor when people of all ages are choosing financial providers (Gibson 2021). The conducted study shows that 29 % of participants think that banks do not have low fees, while only 4 % identify fintech as a high fee

service provider. Detailed percentages of participant's perception of fintech and banks see in Figures 1 and 2.

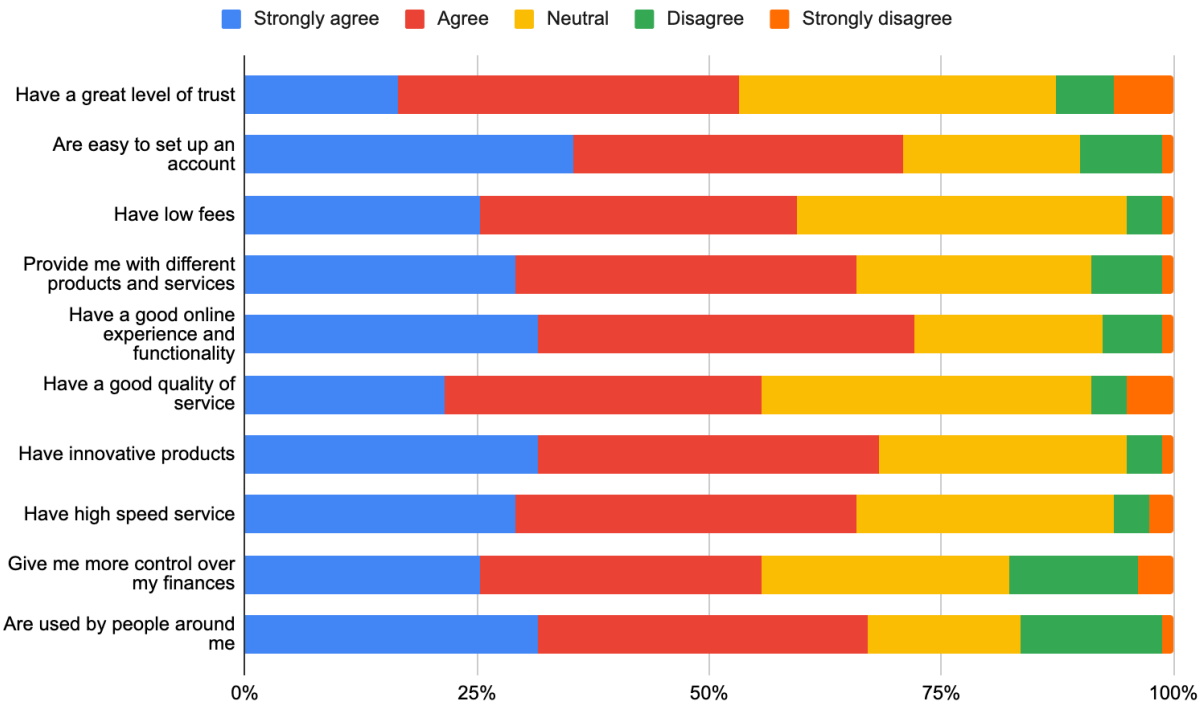

Figure 1. Perception towards Fintech services

Source: Author's calculations

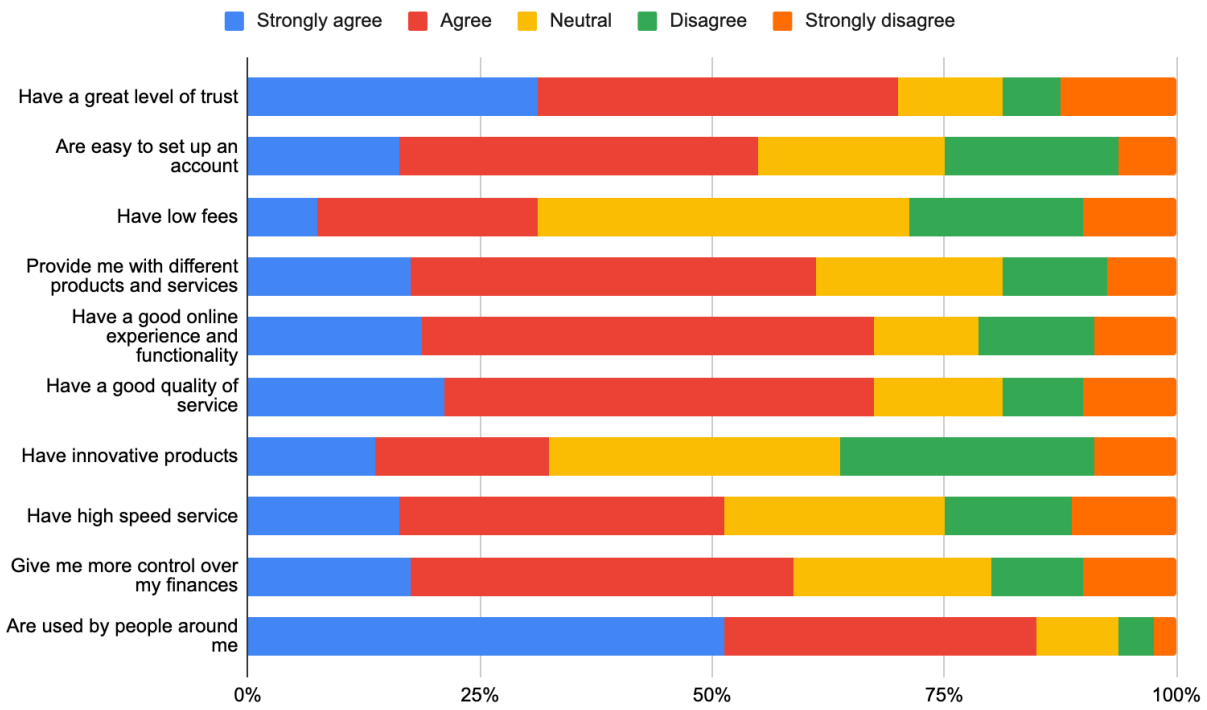

Figure 2. Perception towards banks

Source: Author's calculations

Roughly the same percentage of 62 % think that both fintech and bank services provide them with different products and services. The picture is different when comparing the innovation of these products, 65 % of participants consider fintech and 32 % of the bank as innovative service providers. Having a good online experience and functionality is where participants seem to be the most confident in their attitudes, 29 % strongly agree and 40 % agree with the statement when talking about fintech, while the overall percentage of agreeing with the statement is the same with banks, only 18 % of them strongly agree with it. On the one hand, overall having a good quality of service banks are preferred with 67 %, while 55 % of participants are satisfied with the quality of fintech services. On the other hand, fintech providers are pioneers (62 %) in high-speed service. This means that speed of service is not the dominant player when rating the quality of service. 52 % versus 60 % of participants think that they have more control over their finances while using fintech and banks respectively. One of the common influences of choosing the financial service provider is the number of people around, the outcome of this question was not unexpected. 86 % think that people around them use banks, and 64 % of participants think that people around them use fintech.

The survey also identified cases in which participants preferred using fintech or bank services. In cases like receiving a salary, paying bills/ tuition fees, savings account, or instant transfer, participants preferred bank services. Fintech services were preferred when sending money abroad and exchanging currencies. Figure 3 shows the detailed percentage of each case. These numbers are biased by people who do not use fintech services, their choice in any category is a bank. When analyzed the participants who use both bank and fintech services the results were slightly different. Fintech was preferred in need of instant transfers, sending money abroad, and exchanging currencies. While in the rest of the cases banks were preferred, the percentage of participants was lower than in the case above.

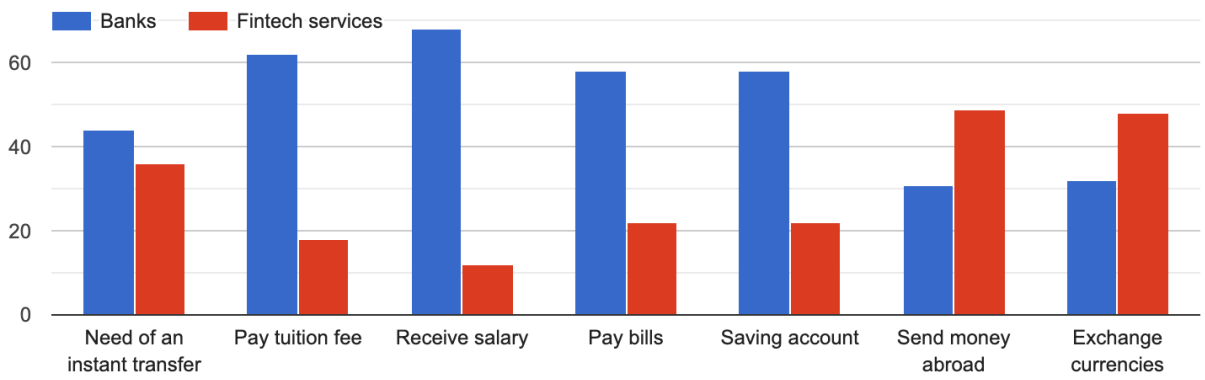

Figure 3. Usage of banks and fintech in different cases
Source: Author's calculations

Choosing a financial provider is an important decision for generation Z. The mean value of importance is 4.29. The lowest score detected was 3 out of 5. Participants were asked if they were willing to change the financial provider when hearing about the better service. The mean value is 3.44 with a standard deviation of 1.19. More than 50 % of participants do not consider themselves as loyal customers and are willing to change the financial providers based on better services. Findings show that the relationship between fintech and bank has an impact on participants' attitudes towards the choice of service. 66 % of participants, who are familiar with fintech think that if banks are partnering up with fintech services, it will have a positive impact on them, while 73 % of fintech unaware participants think it won't have an effect on them. The final question for the first category was if they preferred fintech or bank services, the percentage divided by 40 % and 60 % respectively. The second category of the participants was asked if

they were willing to try fintech services in the future. The majority 42 % are feeling neutral about it, which explains the effect that they are not aware of fintech services. Besides this fact, 37 % are likely to try fintech services in the future, while 21 % are less willing to try them.

3.2. Discussion

According to Sturgis *et al* (2014) "neutral" selection from Likert type, questions are indistinguishable from, I don't know, undecided. Based on this interpretation, it can be concluded that generation Z does not have enough experience and knowledge on fintech services to have strong opinions about the advantages or disadvantages of fintech. This means that there is a big percentage of young people, who are indecisive and their opinions will be formed in the next few years. Participants who use fintech services are two times less indecisive and have stronger trust in fintech (by 50 %) than people who do not use fintech services. It is interesting to emphasize that people who use fintech services also have higher (by 12 %) trust in banks than participants who only have bank accounts. Among participants who are not using fintech service, but at the same time do not trust banks they are considering themselves as loyal customers and are less likely to change financial providers easily. It is important to mention that participants who live in developed countries trust banks more than developing countries' representatives. The picture is quite different when comparing low fees. People who do not use fintech services at the moment think that banks have lower fees than fintech, but people who are active users of fintech consider fintech 49 % more as low fee services than banks. This is the segment, which is considered as a future fintech user, after acquiring more information or just trying the new services out. The outcome of the percentages is roughly the same in the following categories: offering better and high-speed service, offering many different and more innovative products, and having more control over finances. Participants who are aware of fintech but are not using any of its services are biased by banks and they do not have the right information on each financial provider. The detailed percentage which shows the difference of agreeing with the reasons between participants who are using fintech services and participants who are not using fintech services is shown in figure 4. It can be concluded that after experience with any fintech providers participants are receiving much better experience and products than they are expecting, which indicates their high probability of becoming fintech users. Their attitude towards banks changes too, they are

seeing less innovation, higher prices, and less satisfaction from the banks side than participants who are only bank users (see fig 4).

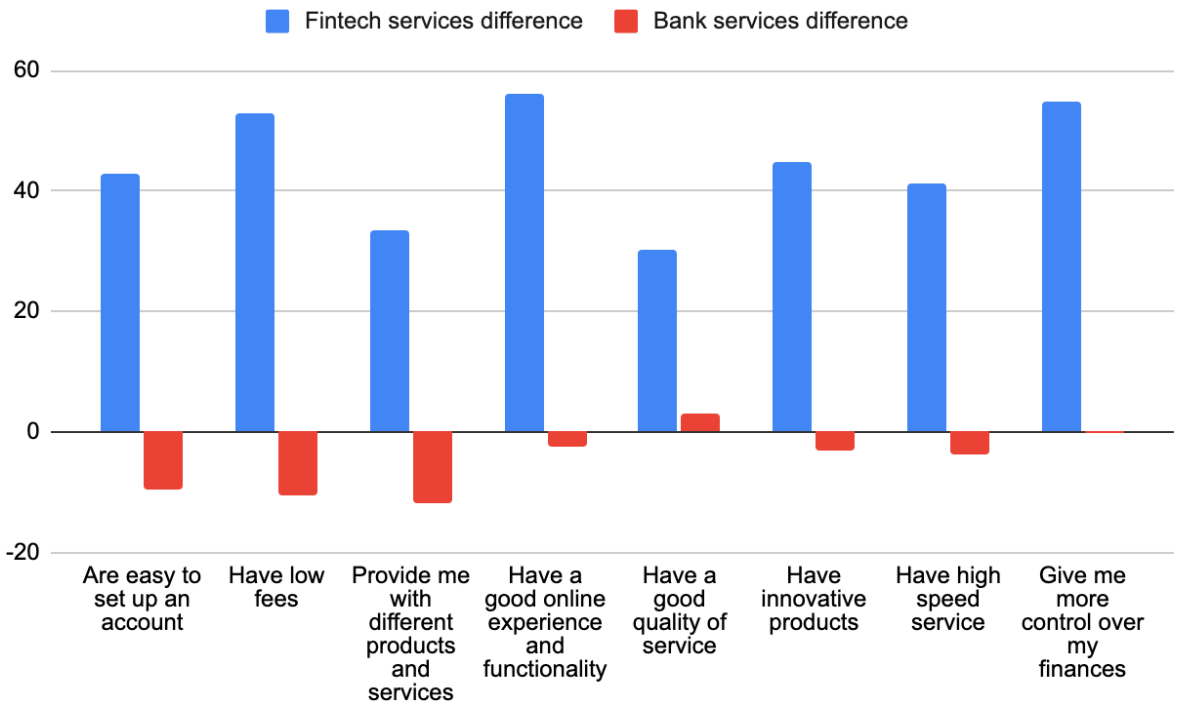

Figure 4.Difference between opinions of fintech and bank users

Source: Author's calculations

Comparing the perceptions towards bank services of participants who are aware of fintech and who are not, gives some insights into how generation Z changed their opinions after acquiring new information about existing alternative financial providers. Perception about service quality and speed is not changing much. The big difference is noticeable, in the statement on the innovation of banks. 53 % of participants who are not aware of fintech indicating bank services as innovative versus 32 % of participants with some fintech awareness.

Analyzing awareness of fintech in developed and developing countries gave insightful results. 33% of participants who live in developing countries do not know fintech services, and 33 % of

them think that maybe they have heard about it. While from the participants who live in the developed countries only 17 % are not aware of fintech or maybe they are familiar with it.

Participants whose main source of income is the salary have a higher percentage of using fintech services. 67 % of them use fintech, while 46 % of participants whose main source of income is not salary. This can be explained by the level of involvement in their finances. Participants who are receiving salary need more information about managing their finances, which explains their higher awareness.

3.3. Regression analysis

The logistic regression aims to analyze what factors induce young people to use fintech services. It also identifies the importance of the variable as well as the direction of the association. Out of 12 independent variables gender, country (developed/developing), good online experience neutral (var F), and good quality of service neutral (var E) are statistically significant at the significance level of 0.05.

In the case of gender, we can say that if the gender is Male then the odds of the person using fintech services are higher than being a female when controlled for all other variables. The probability of switching to fintech for male participants is 3% higher than for female participants. Unexpected was the importance of country classification. Participants from the developed countries are 45% more likely to switch to fintech services than developing country representatives. The probability rapidly increases for participants who strongly trust banks. Participants from developed countries who trust banks have almost 100% of probability using fintech services, while participants from developing countries have very low. As mentioned above, in general participants have more trust in financial institutions in developed countries. The coefficient of the trust variable is positive, which inclines that having trust in banks does not necessarily mean that participants are not open to trying new financial services, trust is not the main obstacle of switching to fintech.

Participants who feel neutral about having a good online experience in banks are more likely to try out and switch to fintech services. The opposite relationship was detected when analyzing the overall quality of service in banks. Despite the fact that they do not experience good quality in banks, it does not seem to be an intention to switch to fintech services. This opposite relationship

between online experience and quality in general also was detected in the part of the descriptive statistics while analyzing the speed of service and quality in general. Based on these findings, it can be summarized that in the eyes of young consumers speed and online experience is not considered to be part of the general quality of service in banks. Low fees have one of the highest coefficients, emphasizing its importance as discovered in descriptive statistics too. Participants who think that banks do not have low fees are 100 percent probable to switch to fintech services. The ease of setting up an account seems to be an important factor based on previous studies. Participants who think that banks are quite easy to set up an account have no intention to change to fintech services. To take into account all the statistically important variables participants are most likely (100% probability) to switch to fintech services. Table 1 shows the detailed analysis of every variable used.

Table 1.1 Logistic regression

Variables	Estimate	Std. Error	z value	Pr(>|z|)	
(Intercept)	-1.592e+01	6.646e+00	-2.395	0.0166	*
Var.ADisagree	-3.015e+00	5.760e+00	-0.523	0.6006	
Var.ANeutral	8.800e+00	5.517e+00	1.595	0.1107	
Var.AStrongly agree	1.053e+01	6.360e+00	1.656	0.0977	.
Var.AStrongly disagree	4.185e+01	4.742e+03	0.009	0.9930	
Var.BDisagree	-3.744e+00	3.270e+00	-1.145	0.2522	
Var.BNeutral	7.481e-01	2.675e+00	0.280	0.7797	
Var.BStrongly agree	-1.486e+01	8.409e+00	-1.768	0.0771	.
Var.BStrongly disagree	-7.278e+01	2.876e+04	-0.003	0.9980	
Var.CDisagree	9.079e+00	4.849e+00	1.872	0.0612	.
Var.CNeutral	9.131e-01	1.356e+00	0.674	0.5006	
Var.CStrongly agree	2.843e+00	2.780e+00	1.023	0.3064	
Var.CStrongly disagree	-1.375e+01	4.741e+03	-0.003	0.9977	
Var.DDisagree	8.795e+00	7.180e+00	1.225	0.2206	
Var.DNeutral	4.997e+00	2.996e+00	1.668	0.0953	.
Var.DStrongly agree	9.728e-01	2.435e+00	0.400	0.6895	
Var.DStrongly disagree	1.139e+02	3.007e+04	0.004	0.9970	
Var.EDisagree	2.272e-01	4.338e+00	0.052	0.9582	
Var.ENeutral	1.957e+01	9.225e+00	2.121	0.0339	*

```
## Var.EStrongly agree       7.211e+00  4.463e+00   1.616   0.1062
## Var.EStrongly disagree    2.591e+01  1.087e+04   0.002   0.9981
## Var.fDisagree            -3.755e+01  1.154e+02  -0.325   0.7449
## Var.fNeutral             -2.147e+01  9.595e+00  -2.237   0.0253 *
## Var.fStrongly agree      -4.842e+00  4.204e+00  -1.152   0.2494
## Var.fStrongly disagree   -1.161e+02  1.360e+04  -0.009   0.9932
## Var.GDisagree            -2.008e+00  3.296e+00  -0.609   0.5424
## Var.GNeutral             -1.462e+00  1.569e+00  -0.932   0.3515
## Var.GStrongly agree      -9.689e+00  2.616e+01  -0.370   0.7111
## Var.GStrongly disagree   -3.056e+00  2.287e+04   0.000   0.9999
## Var.HDisagree            -3.738e+00  4.565e+00  -0.819   0.4129
## Var.HNeutral             -1.261e+01  6.780e+00  -1.860   0.0628 .
## Var.HStrongly agree       7.051e+00  2.598e+01   0.271   0.7861
## Var.HStrongly disagree    3.158e+01  7.831e+03   0.004   0.9968
## Var.IDisagree             1.767e+01  1.142e+02   0.155   0.8770
## Var.INeutral              4.193e+00  2.447e+00   1.714   0.0866 .
## Var.IStrongly agree       4.125e-02  2.273e+00   0.018   0.9855
## Var.IStrongly disagree    9.359e+01  1.317e+04   0.007   0.9943
## OpinionDisagree          -4.848e+01  2.178e+04  -0.002   0.9982
## OpinionNeutral           -2.112e+00  3.151e+00  -0.670   0.5026
## OpinionStrongly agree    -1.612e+00  1.734e+00  -0.929   0.3527
## OpinionStrongly disagree -1.201e+02  4.200e+04  -0.003   0.9977
## GenderMale                1.289e+01  6.571e+00   1.962   0.0497 *
## Developed1                1.581e+01  6.726e+00   2.351   0.0187 *
## ---
Signif. codes: '*' 0.05 '.' 0.1 ' ' 1
```

Where

Var A- Have a great level of trust

Var B- Are easy to set up an account

Var C- Have low fees

Var D- Provide me with different products and services

Var E- Have a good online experience and functionality

Var F- Have a good quality of service

Var G- Have innovative products

Var H- Have high-speed service
Var J- Give me more control over my finances
Opinion-Are used by people around me

Source: Author's calculations

To analyze the effect fintech and bank partnership have on consumers choice another logistic regression analysis was done. As mentioned earlier, due to the number of features, different variables were chosen based on the level of AICc for the final model (Table 2).

Table 1.1 Logistic regression with additional variable

Variables	Estimate	Std. Error	z value	Pr(>|z|)
## (Intercept)	-4.6736	1.1745	-3.979	6.92e-05 ***
## WillingLess willing	2.3795	1.1383	2.090	0.03659 *
## WillingMore willing	2.6751	0.6742	3.968	7.25e-05 ***
## Developed	2.9552	0.9304	3.176	0.00149 **
## GenderMale	2.2910	0.6992	3.277	0.00105 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Source: Author's calculations

As the analysis showed, the relationship between banks and fintech affects consumers' choices. The relationship between more/less willingness to become bank customers after their collaboration seems to have a positive impact on the probability of switching to fintech services. As the previous logistic regression analysis showed, both developed countries and gender males have a higher probability to switch to fintech services.

3.4. Results

According to Daqar *et al* (2020) generation Z has the highest adoption rate of technologies and they are more financially responsible than millennials. This attitude is reflected in the fintech awareness which is 82 %. Among these participants, 67.5 % are using fintech services, which is

higher than the global adoption rate of 64 % according to EY 2019. Although they still lack experience in fintech, so they do not have formed opinions about fintech services. This means that in the following years these opinions will be stronger. Suggestion for banks would be to try and acquire the young segment in this period before they become fintech users because as the analyses showed, the customers who are not aware of fintech services or are not users, are considering themselves as loyal customers and after trying fintech services they feel more dissatisfied with bank services. The users of fintech have a higher rate of switching the financial providers when hearing better services. Gen Z values innovation, and technology, 44 % depends on smartphones (Daqar *et al* 2020). The questionnaire proves the importance of innovation and gives one more reason for banks to foster innovation as fast as it is possible in real life. Participants who have used fintech services are rating banks as not innovative financial service providers. This can be the key motivation for customers to switch from banks to fintech service providers. Technology made it possible to lower financial fees, which seems to be a noticeable fact for generation Z since more participants identify fintech as a low fee service than banks. The low fee is one of the main motivators for switching to fintech services. The expectations of the bank users towards fintech are not high enough, many of them feel neutral about trying fintech or they are less likely to try them. However, results showed that their actual experience with fees, online services, and in general quality of fintech services are much higher than what they are expecting. That is why the suggestion for banks would be to adapt to these changes faster than customers find their comfort zone in fintech services. Banks have adoption, awareness, and trust advantage till this point, they should use these important advantages and in the following years, they should meet demands of young customers. However, trust does not seem to be the most valuable criteria when choosing between fintech and bank services. Lower fees, more innovation, and the ease of setting up an account have higher importance. Participants who strongly trust banks still are likely to switch to fintech services, while participants who feel the ease of the experience in banks are less likely to find and try other solutions other than banks. Partnering up with fintech has value in the customer's point of view. The majority of participants who are aware of fintech services think that banks partnering up with fintech services will have a positive impact on them and they will be more willing to be customers of banks. The impact was detected in the regression analysis too, which showed that partnering up with fintech will have a positive impact on using fintech services. It seems that partnering up will have a positive effect on both sides - banks and fintech. Generation Z sees the better option and lowers fees in fintech services when it comes to instant transfer, cross-border transfer, and currency exchange. They use banks mainly for receiving salaries and paying bills/tuition. This fact is changing, more and

more employers are sending salaries on fintech accounts, and more and more people start to work freelancing, which requires cross-border transfers. The combination of fintech and the young generation made it possible to tackle and decline the always existing problem of the gender gap. As mentioned earlier, developed countries are the ones who need fintech services the most, however, the results do not respond to the needs. Participants who live in developing countries are less likely to switch to fintech services from banks than participants from developed countries. Despite the benefits the users see from fintech services, 60 % of them prefer bank accounts. Fintech changed generation Z's expectations, and perceptions towards the financial industry, they are more willing to explore the opportunities around and to try them. These factors had an impact on traditional banking systems, as they are experiencing lower satisfaction, especially from the young customers. The results show that Zoomers, despite their high attractiveness to technologies trust banks more than fintech services, but if there are better alternatives, they are willing to change, which they already have started.

CONCLUSION

The goal of the study is to analyze generation Z attitudes towards banks and fintech. Young consumers have different expectations from financial service providers since they are more technology-driven and more acknowledged in their finances. Gen Z is a very important customer for banks and fintech. They are defining the future of the financial sector.

The study analyzed the roles and trends of fintech and banks, the possible relationship between the perceptual changes it caused to the young generation. Faster adoption of innovation is a crucial part of marking the place towards competitors. It gives a huge competitive advantage to banks, as it guarantees a faster and more efficient business model, as it determines the customers' attractions. One of the suggestions based on the study for banks would be to partner up with fintech services or change their inner capacities. As the study showed innovation, low fees, and comfort are what matters most for the zoomers.

The survey was conducted to identify factors that influence generation Z' choice between fintech and bank services. The results showed the gen Z has the highest adoption rate of fintech services among all generations. At this point, more participants trust banks than fintech and prefer using bank services rather than fintech services, although it seems to be changeable in the near future. Most of the participants are feeling indecisive about most characteristics of fintech services such as, trust, customer experience, service speed, product and service variety, and quality of it. While they are forming their opinions, the majority of participants are already using some fintech services. Generation Z is distinguishable from other generations with their high probability of switching the finance provider if hearing the better services. This means that banks will have a decreased number of loyal customers. At the same time, trust is not perceived as the most valuable factor when choosing between financial providers. At this time, generation Z prefers using banks and in general, but they already started to use fintech services for cross-border transfers, instant transfers, and currency exchanges. The traditional banks should change their strategy, and attract more young customers, for this collaboration for fintech seems the efficient way.

The small sample size to compare the diversity of variables would be one of the limitations of the research. The survey was sent out only in the English language, which limited the participants' number and caused some biases.

In this research, all the participants had bank accounts, which made it impossible to learn about the unbanked population. Since the generation Z age limit starts from 9 till 24 and is considered as a young generation, there are many unbanked among them. It will be interesting to compare the unbanked segments' perception towards fintech and bank services. Further research can analyze the similarities and differences, and detect some patterns, which will be important for the bank's strategy to attract unbanked customers.

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What if the next big disruptor is not a what but who?
EY report 2015.

APPENDICES

Appendix 1. Questionnaire

1. Age*

18
19
20
21
22
23
24

2. Gender *

Female

Male

Other:

3.Source of Income *

Family support
Salary

Scholarship/sponsorship

Other:

4.Current education level *

Did not graduate high school

High school
College

Bachelors
Masters

PHD

5.Current country of residency *

6.Do you have a bank account? *
Yes

No

7. Are you aware of fintech services? (e.g Transferwise, Space, Revolut, Binance, Robinhood, etc.) *

Yes

No

Maybe

8. Do you use any fintech services?*

Yes

No

Likert scale questions. Strongly agree/agree/neutral/disagree/strongly disagree.

9. Please indicate your opinion with the statements below. Fintech services: *

Have a great level of trust

Are easy to set up an account

Have low fees

Provides me with different products and services

Have a good online experience and functionality

Have a good quality of service

Have innovative products

Have a high speed service

Give me more control over my finances

Are used by people around me

10. Please indicate your opinion with the statements below. Bank services: *

Have a great level of trust

Are easy to set up an account

Have low fees

Provides me with different products and services

Have a good online experience and functionality

Have a good quality of service

Have innovative products

Have a high speed service

Give me more control over my finances

Are used by people around me

11. From the following services, in what case you would use a fintech or a bank? *

	Banks	Fintech
Need of an instant transfer		
Pay tuition fee		
Receive salary		

Pay bills

Saving account

Send money abroad

Exchange currencies

12. How important is the decision of choosing a financial provider (banks, fintech services) for you? *

Not important 1 2 3 4 5 very important

13. How likely are you to change the financial provider (banks, fintech services) when hearing about a better service? *

I am a loyal customer 1 2 3 4 5 Most probably

14. If banks are partnering up with fintech service providers would you be more willing or less willing to be a customer? *

More willing

Less willing

Does not have an effect

15. Do you prefer using banks or fintech services? *

Banks

Fintech

15. How likely are you to try any fintech services? *

Not planning to try fintech services 1 2 3 4 5 I will try fintech services.

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