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The digitalization impact on new patterns in consumer behaviour of the banking industry and strategies implemented by banks based on insights

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Abstract

In an age of rapid technological development, online banking services have advanced to an unprecedented level and contributed to the closing of many bank branches as well as a greater focus on mobile applications. The development of mobile services, online payments and Mobile Banking has been a major driver for widening access to finance, but there are always certain risks. The problem may be that some consumers are not adapting to a rapidly changing world and some of them might face unpleasant experiences. The objective of the study is to identify key characteristics of Kazakhstan banks which attract all generations and determine consumer interests both before and after they started using mobile banking. Convergent Mixed Method Design was used for analyses of data, where we collected the data and results separately. The study results will help banks to better understand their consumers and to know what strategies they should be investing in.

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Introduction

Nowadays the tendency of digitalization is to capture every aspect of our lives and the entire world. It should be highlighted that the banking systems are particularly affected by this.

Online banking has become a crucial part of every consumer's life in the age of rapidly evolving technologies. Especially since the global COVID-19 quarantine, the development of IT in banking services has advanced to a new level and contributed to the closure of many banks' branches while increasing its focus on mobile applications. The development of mobile services, online payment, and online banking provided the impetus for expanding the accessibility of financial services. In more than 20 countries around the world, the number of people using mobile phones to save money and make purchases today exceeds the number of bank account holders.¹ “Never were these growing demands more important than during the coronavirus pandemic... Unable to visit bank branches, consumers turned to mobile apps and online services to get transactions done”, - Antoine Gara, staff writer and associate editor at Forbes. The increasing need for online banking can be confirmed by the example of the world's best banks. According to Forbes analysis, one of the most successful and biggest banks in China – “Citigroup” had 70% of customer payments through AliPay and issued a partnership with Indian and Singapore fintech to use chatbots for consumer questions and requests right during all COVID-19 time. Moreover, even Amsterdam-based ING, which overtook other banks and opened the digital bank ING Direct in 1997, strengthened their grip. According to Aris Bogdaneris, head of challengers and growth markets at ING, after COVID-19 they focused more on the digital banking sphere in all countries they had branches (Netherlands, Poland, Australia, Germany, Spain, etc.). Also, for example, Revolut bank has no physical points of presence at the bank. But it is common

¹ Brett King (2021), *Bank 4.0 Banking Everywhere, Never at a Bank, Inc.* 23

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all over the world because of its convenient use. The Revolut account is managed through a mobile application, a maximum of 3 physical cards and 5 virtual cards can be stored in the account.

All these factors encouraged other banks to quickly digitise their web applications. Users were positively affected by it as a result of its simplicity and clarity which altered their behavioural patterns. Due to the fast-evolving relationship between the client and the bank, convenience, quickness, and simplicity have stopped being advantages in use and have instead become the norm for users. Customers now only consider how well the banking services they require can be delivered. The characteristics of user behaviour have also changed as a result of the new adjustments. The decision of the buyer is influenced by personal traits such as age, occupation, economic standing and lifestyle. It is our mission to comprehend how modifications impact the consumer's future decision-making and behaviour.

These changes also had an impact on Kazakhstan's banking systems, as a result of Kaspi's initial efforts to digitalize and simplify the usage of online banks, the proportion of mobile banking users has swiftly expanded². At the international forum Digital Almaty 2023, CEO & Chief Ecosystem Officer of Kaspi – Mikhail Lomtadze, highlighted their main mission to create innovative services that improve the lives of customers. In this speech, he demonstrated the results of their innovative services and featured customer reactions and feedback on how their life became easier with these changes. Therefore, it is not wrong to say that Kaspi, as a leading innovative bank that is trying to follow digital trends to meet the needs of customers, encouraged others to follow this innovative path.

This result led to the creation and development of an additional "Ministry of Digital Development, Innovation and Aerospace Industry of Kazakhstan", which, in turn, supports

² Capital Business Information Center (04.11.2021) <https://kapital.kz/finance/100041/mikhail-lomtadze-kaspi-kz-sdelano-v-kazahstane.html>

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digitalization and automation projects, as well as improving the quality of the Internet and expanding the functions of mobile banks in addition to providing services to the bank itself, but also led to the fact that the main activity of banks switched to high-quality remote customer service and investment in IT systems. Many banks have closed their branches, which has led to a reduction in the number of physical bank branches and the development of new technologies, such as, for example, "kartomat" Kaspi, where a customer can instantly get a new debit card without the help of bank employees, as well as additional functions such as "documents", but not all banks are ready to provide such services, for example, you will not find such services at the banks of Jusan and Forte, although these banks appeared in the country earlier.

The increasing popularity of digitalization and its relevance in modern realities prompts businesses and governmental institutions to consider new strategies and operating processes. The fact that it is now difficult to find someone who does not use online banking cannot be overlooked.

The primary goal of this research was to investigate the impact of digitalization on new models of consumer behaviour in the banking industry, as well as the strategies implemented by banks based on the findings: Jusan, Forte, and Kaspi. The following tasks are solved in the work based on this goal: - studying the introduction of digitalization into Kazakhstan's banking system, - determining the scale of the impact of digitalization of the banking system on Kazakhstan citizens, - determining which generation was more involved in the digitalization of the banking system, - studying future consumer behaviour patterns, - investigating what strategies banks have implemented for customers continuing to follow digitalization.

Research objectives

The research was expected to discover the actual topic through the following hypothesis, as well as to identify the key characteristics that make Kazakhstani banks appealing to each generation and determine consumer interests both before and after they began using mobile banking regularly.

Research question

The main question of this study is “How digitalization forms new consumer patterns in the banking industry?”. By analysing and finding the answer to this question the study aimed to identify the correlation between digitalization and consumer behaviour.

Research hypothesis

We have formulated three main hypotheses for further study.

H1. Digitalization has a greater impact on generations' Y and Z behaviour as bank consumers.

H2. Convenience and usability of banks' online services influences customers' choice of banks.

H3. If banks fail to deal with the consequences of digitalization, they risk becoming irrelevant and losing their customer base.

Literature review

Primary data

Digitalization in Kazakhstan

The active transition and establishment on the path of digitalization in Kazakhstan began after the adoption of the state program "Digital Kazakhstan" (hereinafter referred to as the Program) on December 12, 2017, the control of which was entrusted to the Ministry of Digital Development, Innovation and Aerospace Industry. The terms of implementation of this program are from 2018 to 2022 and the purpose of this program is: "accelerate the pace of development of the economy of the Republic of Kazakhstan and improving the quality of life of the population through the use of digital technologies in the medium term, as well as creating conditions for the transition of the economy of Kazakhstan to a fundamentally new development trajectory that ensures the creation of the digital economy of the future in the long term." The procedures for providing services by brokers for investors, as well as conducting trading operations without the client's signature on paper and providing electronic services through the client's personal account, have been simplified because the state is aware of the role of the financial sector in the country's transition to digital Kazakhstan, namely the impact of the financial sector on the speed and quality of changes in this matter. The financial industry is the country's leader in the use of innovative technologies and digital services to provide services to customers. At the time of the formation of the program, it was found that 70% of banks provide services to individuals through the Internet and mobile banking, 55% of banks provide their services based on mobile applications. The volume of payments made by individuals using the Internet and mobile banking in 2016 increased 2.6 times compared to 2015. By 2022, the state envisaged the formation of a proactive financial society in Kazakhstan, which would play a key role in an effectively functioning financial industry with

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a developed infrastructure of the payment services market. (Resolution of the Government of the Republic of Kazakhstan dated December 12, 2017 No. 827). In May 2022, the Program became invalid after the President's speech at a meeting of the State Commission on the State of Emergency in April of the same year, citing shortcomings and instructing to revise the State Program without additional financial costs. (The state program "Digital Kazakhstan" will be revised in 2022). Despite the loss of the resolution, the Program paved the way and pushed the banks of Kazakhstan to implement new opportunities in the field of information technology, and showed vulnerabilities in digital services of the financial sector during the COVID-19 Pandemic.

The COVID-19 pandemic caught everyone off guard and did not spare the financial industry, prompting a rapid transition to digital services and active use of information technology in the banking sector and opening up new opportunities for consumers. During the disease's spread, banks faced the issue of a threat to the health of the population, which prompted the department to prioritise the safety of employees, customers, and other businesses. To avoid risks, the country declared a lockdown, which became the reason for switching to a remote mode of operation and a rapid increase in the provision of electronic services among Kazakhstan's population. According to data provided by the National Bank of the Republic of Kazakhstan, there has been a significant increase in the use of non-cash transactions in the country. In 2018, 172,766 thousand non-cash payments totalling 2,852,419.4 million tenge were made in the country via the Internet, and 615,873.4 thousand were made in 2019, following the coronavirus outbreak. Transactions in the amount of 9,655,303.4 million tenge via the Internet and mobile applications, the growth of non-cash transactions via the Internet and mobile applications increased by more than 256% in only one year. This increase can be explained by the fact that, as a result of their isolation, people of all ages were forced to use the digital services made available to them and began to trust

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modern technologies increasingly. According to the results for 2022, the number of non-cash transactions via the Internet and mobile applications has increased almost 9 times. As a result, 5,330,842.5 thousand transactions of non-cash payments totalling 84,711,410.9 million tenge were committed in 2022 via the Internet and mobile applications. Because of the enormous popularity of non-cash payments, banks like Jusan, Forte, and Kaspi began to incorporate new features into their mobile applications. Tracking account transactions through a personal account or opening a deposit directly through a mobile phone has become essential functions for all banks providing services through their mobile application, so banks are now capturing potential customers' attention with new functionality such as providing public services or a ready-made platform for entrepreneurs, as in Kaspi.

Secondary data

Implementation of digitalization

Digitalization has had an impact on several industries over the past two decades, providing novel economic prospects and spawning cutting-edge new technology. Startups and global technology businesses are developing new service models based on information technology (IT), frequently providing more customer-oriented and user-friendly digital applications in the banking industry, resulting in greater digitalization of financial goods into digital services. Certain recent technological developments have the potential to modify or supplant some of the traditional banking activities. Platform-based digitalization and fintech are consequently pushing banks to restructure their corporate boundaries and streamline market engagement (Kohtamäki et al., 2019). Ten years ago, there were no new services available for traditional financial goods, but now those services are available thanks to digitalization.

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Digitalization of the banking system is becoming increasingly popular. Recognizing the increasing popularity of digitalization, much research has been devoted to understanding how various factors influence customers' decision-making processes (*e-Service Journal, 2011*). Currently, there are numerous examples of constantly changing consumer needs and patterns of banking service consumption, indicating a greater consumer openness to innovation. As a result, banks are focusing more on incorporating behavioural science concepts into the creation of ideas, design, development, and transmission of digital content via applications and platforms. Progressive banks have begun the journey to develop next-generation behavioural banking technology that can meet users' financial and psychological needs. As a consequence of the banking system's digitalization. Banks, specifically Kaspi Bank, began to change their customer service approach. In 2012, Kaspi shut down its credit card program. The team embarked on the new stage of the transformation plan with a new main objective—to be customer-driven. According to Lomtadze “Companies usually think they are developing great products, but they are tied up with this black box where they continue working on internal efficiencies and profit generation without asking customers to evaluate their products and services. We were also like this before. Very profitable, very efficient. But, not making our customers happy” (Kaspi.kz IPO).

Since the update of Kaspi's mobile application and the introduction of online payments, the amount of online payments has expanded 2.9 times since 2019, and the number of transactions increased 2.7 times due to changed consumer behaviour - customers began to trust online purchases more. Additional factors contributing to this expansion include the successful implementation of mobile commerce and banking ecosystems, the development of delivery services, and incentive systems such as cashback. Following that is a graph depicting the increase in online payments from 2018 to 2021. You can see the diagram of the change in Appendix A in Exhibit 1.

Innovations in the banking industry through fintech

"Banks that fail to integrate and collaborate with fintech solutions will inevitably gradually lose market share," stated Elnur Hasanov (2021), vice chairman of the board at Respublika Bank. Through the use of application programming interfaces, for instance, fintech has made it feasible to track the number of bank customers and offer new services like account transfers and automatic transfers and cancellations based on account information. In addition to operating at the level of individual banks, the algorithms developed by fintech are also adjusting to the digital difficulties affecting the entire financial sector. To improve the digital services provided to retail and corporate industries, the ecosystem needs to be reformed given the legacy technology and organisational complexity inherent in many banks. The growth of an ecosystem of digitalized financial products and new service models based on information technology is referred to as "digitalization" in the banking sector. Banks have always created financial innovations to boost their profitability, and more recently, they have leveraged digital services as a new growth engine. According to Beck et al. (2016), the expansion of banks is positively correlated with financial innovation. According to recent service science research, creating innovative service models can lower business expenses while boosting consumer value.

Rapid innovation in banking services has given rise to new online financial operators that are distinct from traditional banking. Concerns regarding the productivity and profitability of banks that have used marketing techniques to draw in and keep customers are on the rise as a result of the developments. The development of digital and mobile banking opens up new opportunities for customers. Based on practices in developed countries, the United Nations Conference on Trade and Development (UNCTAD) report identified four challenges that developing countries, in general, are expected to overcome in order to reap the benefits of e-banking initiatives (UNCTAD 2002):

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1. The ability to adapt global technology to meet local needs.
2. The capacity to increase public support for e-finance.
3. The ability to establish the necessary regulatory and institutional frameworks.
4. The ability to mainstream small and medium-sized businesses into e-banking.

According to Mckinsey and Company reports, digital banking had a successful path after COVID-19, especially in Asian countries. Examples of countries that successfully launched digital banks are China, Singapore, Malaysia, Taiwan, India, Indonesia, Philippines. Despite the fact there was high competitiveness among different new digital banks, banks like WeBanks, XW Bank, Kakao Bank, Fusion Bank and others are showing progress year by year (“Joining the Next Generation of Digital Banks in Asia”, 2021). According to Nsouli and Schaechter of the International Monetary Fund (IMF), internet banking is especially popular in Austria, Korea, Scandinavian countries, Singapore, Spain, and Switzerland (Nsouli and Schaechter, 2002).

Digital and mobile banking differences

According to the same study, the main difference between digital and mobile banking is that people do not need and use any physical operations in digital banking. All registration processes, branches, account verification and financial advice are fully digitalized, while mobile banking still has some operations like registration, branches, and account verification in offline physical format.

In concordance with the literature on innovations in banking self-service technologies, acceptance of digitalization among most customers is related to the fact that self-service in any industry including mobile banking and digital banking has been practised for decades (Kaushik & Rahman, 2015). In other words, people are getting used to self-service. Therefore, by serving themselves, the probability of dissatisfaction with receiving a product

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is low since customers receive products or services to their likes and requirements, in the way they want it. To confirm this fact, we considered the following studies on the effect of e-payment and online shopping (that are part of digitalization and online, mobile banking) on the sales growth of the banking industry. These studies have found out there is more interest and engagement in e-commerce and e-payment among youth. (Alzoubi et al., 2022, Windasari et al., 2022). The reason why youth easily adapt to digitalization is that they have been born in the age of technology. However, not to say that digitalization did not affect the older generation. Positive results of these studies lead us to the fact that digitalization makes consumers' daily lives more efficient by providing various options like e-payment, online shopping, online transactions and so on according to their requirements. Literature on mobile banking and customer satisfaction showed us the great impact of digitalization (Bharti M, 2016). Results of the explanatory power model showed 88.6% customer satisfaction with online banking. Therefore, consumer satisfaction in mobile banking means the impact of digitalization was positive.

New implemented strategies

The top banks in the world (HSBC, Citi, and Santander) have chosen a strategy that blends corporate branding with branch marketing interactions to draw in clients and earn their loyalty. This strategy combines a strong brand image with direct customer interaction. This approach is now being used by the majority of large banks to boost their competitiveness through relationship marketing and branding. Several related topics of study have recently been written about and are gaining more and more attention. The function of client interaction in fostering customer loyalty is one such recent subject. Pansari and Kumar (2017) assert that businesses made an effort to cultivate positive relationships with their clients and ensure their loyalty and happiness during the turn of the century and the start of the new one.

Customer behaviour (satisfaction and engagement) in new digital and mobile banks

Knowing that satisfaction is the key element in the process of creating and building customer loyalty (Kotler, 2013), we have reviewed studies related to this topic. Studies have shown that to increase consumer engagement, emotional ties are just as vital as ensuring customer satisfaction. The key to customer management in this new period is satisfaction and emotion, whereas the previous relationship-oriented phase was controlled by trust and commitment. Pansari and Kumar (2017) make this observation in reaction to the new circumstance. These authors also discovered that actively non-involved clients bring 37% less annual income to their primary bank than fully engaged customers in the area of retail banking (Pansari and Kumar, 2017). As a result, the explanatory model of customer loyalty should take into account consumer engagement. This study's goal is to pinpoint the key requirements for customer engagement in the context of retail banking (market orientation, contentment, emotions, and connection with the company's brand), as well as the link between that engagement and loyalty. Following this topic, if we go through some study results, we can also see that digital and mobile banking had a positive impact on customers' journeys. They determined that the simpler and easier mobile and digital banking, the more useful and convenient it is for customers. In addition, there were findings that nowadays people tend to believe people; it works especially with online banking since there is no physical person to talk to as in traditional or mobile banks. Therefore, customers tend to use digital banking when their friends or family suggest it. (Windasari et al., 2022)

Methodology

Three hypotheses have been proposed in this research paper, which will be tested using a mixed-method approach. By combining quantitative and qualitative research methods, we will be able to more clearly test the hypotheses.

This research method is appropriate for answering our research question “How does digitalization form new consumer patterns in the banking industry?”. Using the Mixed Research Method facilitates and accelerates data collection, increases the amount of information collected, and aids in uncovering the research question from either the face of quantitative and qualitative research. The method enables a more comprehensive understanding of research problems and questions, such as comparing different perspectives drawn; the strength of drawing on both researches and minimising the limitations of both approaches; and evaluating both the processes and outcomes of a programme. The type of mixed design in this research is Convergent Mixed Method Design where we collected the data separately and then collected the results. (John W. Creswell & J. David Creswell, 2018).

We will examine factors that influenced behavioural patterns using quantitative and qualitative research approaches. We will find out what strategies banks began to follow after digitalization and what changes their mobile applications have undergone through quantitative research, and we will conduct an interview to find out exactly what characteristics influence the consumer's decision through qualitative research. And which perks do they value the most when choosing a bank.

Mixed methods consist of quantitative and qualitative data. Due to it incorporating the strengths of both methodologies, mixed methods can provide a more complete picture than a standalone quantitative or qualitative study. In the behavioural, health, and social sciences, mixed methods research is frequently employed, particularly in multidisciplinary settings and complicated situational or social studies. As we explore how digitalization has affected

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consumer perception and behaviour. This method is ideal for our work, as it will fully reveal the cause of the consequences and the impact of digitalization on both consumers and banks.

In-depth interviews are one method of gathering qualitative data. We interviewed banks' marketing department senior specialists of Jusan, Forte and Kaspi banks for the in-depth interview. The use of interview questions allowed for the identification of trends and shifts in consumer preferences regarding the use of banking services. The questions were mostly focused on the technology used by banks, the changes that marketing departments had observed, and how satisfied consumers were with the mobile banking service. Appendix 1 contains the interview questions.

We can examine how banks came to digitalization and what motivated them to pay more attention to digitalization by conducting in-depth interviews with banks' marketing department senior specialists (Jusan, Forte and Kaspi). To confirm whether our hypothesis 3 "If banks fail to deal with the consequences of digitalization, they risk becoming irrelevant and losing their customer base" is correct, we need to understand where each bank is in terms of digitalization and what future steps each bank will take to engage consumers.

The online survey will be conducted to people of various ages to see if our first hypothesis, "Digitalization has a greater impact on generations' Y and Z behaviour as bank consumers" is accurate. We will see statistics on the age group of consumers based on the responses to the questionnaire. We also want to see if our second hypothesis, "convenience and usability of banks' online services influences customers' choice of banks" is confirmed by the questionnaire. The statistics from the questionnaire will show us the real situation of why bank customers choose a particular bank, and what characteristics of the bank prompt them to do so. We used closed-ended questions which is the method for gathering quantitative data. Each person in our group sent an online survey with closed-ended questions via social media and messengers. The anonymous survey included only closed questions with

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5+ possible answers and the option to add their own answer. It was planned to conduct 100-200 responses in the survey. Based on the survey's findings, we anticipated finding a significant gap between generations Y and Z in terms of attitude, as well as finding the major need for banking services among customers of various ages. Appendix 2 contains the survey questions.

Coming to possible limitations we can face, the first one is not being able to take an interview with banks' marketing department senior specialists, especially from Kazakhstan's leading bank - Kaspi. Due to becoming a half-governmental bank with big data, Kaspi limited some information from the media in order to keep data safe.

The second possible limitation in our study might be faced in the quantitative method part due to the fact that nowadays people do not want to think a lot. Therefore, open-ended questions in questionnaires are not welcomed. Hence, while creating our questionnaire we minimised the number of questions people tend to ignore or answer insincerely.

Research Finding and Analysis part

Survey

The survey is one of the data collection methods that was used by Google Forms. The respondents were able to access the survey by a link sent to them via social media.

The survey received 301 responses at the end. The survey and its study resulted in the following insights, correlations, trends, and tendencies.

In order to understand whether there was a change in the behaviour of customers as they started to use mobile banking more frequently, we have built some questions about the new habits they acquired (**Exhibit 18**). According to the results, we saw two correlations:

1) 74.4% of consumers regardless of their location started to use cashless payments more since now they have fast access to their bank account (**Exhibit 19**);

2) 77.2% of clients who have decreased their need for offline banking and CSCs (Citizen Service Centers) by 33.6% and 76.5% of clients whose demand for online purchases through the bank's mobile application has increased by 33.9% are from big cities such as Astana, Almaty and Shymkent (**Exhibit 18**).

Moreover, the insight seen based on the results shown in **exhibits 18 and 19** - only Generation Z and Y have started their own businesses via Kaspi Bank.

Founding on **exhibits 18, 19 and 20** we saw a surprising tendency, Generation X and Baby Boomers are more open to some mobile banking functions compared to youth. They use functions like “grocery delivery”, “investment”, “buying tickets” and even “online shopping” more than Gen Y and Z for 9.1%.

Some questions were aimed to identify the period when customers started to discover mobile banking. The results shown in **Exhibit 12** tells the majority, i.e. 40.5% of customers started using the mobile application as soon as it became available. However, the number of

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those who began to use more often in 2018 with the updates of the leading bank in Kazakhstan, Kaspi, does not lag behind the majority and amounts to 34.2%. It should also be noted that the behaviour of 12% of respondents has changed significantly due to the COVID-19 pandemic. This majority turned out to be from bigger cities. Therefore, we have identified this trend of mobile banking becoming popular mostly in major cities such as Almaty, Astana, and Shymkent. From these results, we came to the conclusion that the clients are quite active and open to new updates since the majority began to use banks' mobile applications without any external interactions that forced them to use apps.

In addition, by the questionnaire we focused on defining customer satisfaction with the quality and speed of service while using mobile applications of their banks and before using mobile applications. Based on the results, we realised that in general people are satisfied with all the functions provided, in particular the “Transactions”, “QR functions”, “Opening a deposit online” that are used on a daily basis today, when we have mobile banking. The growing tendency that was found out from these results is in people's habits from big cities of using the payment functions of QR on a daily basis. In addition these facts only justify that customers value functions and bank features which help to save their time **(Exhibit 14 and 17)**.

While analysing customer satisfaction before the mobile banking time an interesting insight was noticed. According to our questionnaire **(Exhibit 10)**, the satisfaction with offline banking was high among clients of Kaspi bank with 4.7 points (201 responses) and most of our respondents have been using Kaspi for 6 years and this is exactly a year later after Kaspi bank launched their mobile application. The next in the list of high satisfaction rates are customers of Jusan Bank - 4.4 points (24 responses) and Halyk Bank - 4.1 points (54 responses). All banks scored above average, which is an outstanding result for institutions providing banking services. However, the interesting insight here is most of the satisfied

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customers are from banks that launched their mobile applications right on time, when customers needed it.

When receiving answers to the question of how long users use the mobile application of their main bank, it was discovered that the majority of individuals (45.2%) use the mobile application of such banks as Kaspi, Jusan and Halyk for more than 4 years. What leads to such an insight that the first wave of popularity surged with the update of the Kaspi mobile application, this indicates the early involvement of customers in mobile banking. The second wave of users surged after the onset of COVID-2019, these are users who have been using mobile banking for 3 years (34.9%), which leads to the second insight that consumers began to use the application more due to the pandemic's limitation. As a result, it has expedited the adoption of mobile banking into the everyday routines of customers of all ages. **(Exhibit 11)**. Finding out how satisfied users are with the functions of their mobile banking. It was revealed that the majority of users are satisfied with the mobile application of their bank (91.4%), yet among the respondents the most dissatisfied were the users of Halyk Bank (2%) **(Exhibit 13)**. It was discovered that Halyk Bank's mobile application and functionality are poor and need a lengthy transaction procedure when compared to other banks. Based on the responses, we discovered that the functioning of the application is crucial to users regardless of their level of wages, place of employment, or age. It was also discovered that the functionality and quality of the mobile application are the most significant factors for customers.

The pattern then shifts to the most popular functions among customers. We observed that the functionalities that make daily living simpler are the most widespread among users. Due to the development of internet banking, consumer requests have become available, the mobile application has a good effect on time savings, transactions and transfers have become faster and easier to carry out, and individuals have begun to carry less cash with them. All of

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this leads us to the conclusion that people reacted positively to the introduction of mobile banking and began to use it much more frequently because they have confidence in it and it simplifies their daily lives by allowing them to check their bank account, deposit, pay for studies, utilities, fines and taxes, and use a bank account at any time. an application on a regular basis in everyday life. That is, mobile applications with a big number of functionalities and which are continually updated for convenience are in high demand. Saving time is a crucial element that Generation Y and Z (68.8%) value. What has revealed in customers the habit of a lighter and more comfortable living since they began using online banking; as a result of this experience, they can no longer envisage their everyday existence without mobile banking. **(Exhibit 15,17,19).**

Interview

Moving on to part of the interview with specialists in the marketing departments of banks, we want to start with Jusan insights. The first question was to identify what changes in customer behaviour they have encountered since COVID-19 and digitalisation. Jusan bank's main marketing expert says: "COVID has accelerated digitalization in all areas, from government agencies to business history, people began to use deliveries and purchases more often. Before that, people were a little hesitant about online shopping services, but COVID has accelerated this process. I can also give an example of our collaboration with the BI Group when we started selling apartments online, thus the pandemic accelerated electronic sales". He also mentions that during COVID and the advent of digitalization, it has become easier to launch electronic sales and applications, thereby facilitating the process of registering a client in a particular bank. "It's more difficult to create a second impression, it's more difficult to attract a client a second time if you lost it once, digitalization took it down

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because before, in order for a client to leave the bank, they had to go through long procedures, but with the advent of digitalization, this is now done in one click”.

By asking the second question we wanted to know when they have started to invest in mobile apps’ development and what users value their mobile applications for. “A mobile application has been developed for everyone a long time ago, huge funds and teams were allocated to develop this area, but modern competition is more about digitalization and other banking mobile applications”.

The purpose of the third question was to find out whether there was any increase in the level of customer engagement and satisfaction before and after the implementation of new technologies. We have identified that engagement rates always increase if specialists measure them, implement them correctly and perform well. Often marketers underestimate this tool and don't measure the level of engagement; sometimes some functions, and products are better for customers, and in order to fix this, you need to conduct statistics.

Next, we have found out that digitalization impacted changes in their marketing strategy more and therefore they focus more on digitalization now.

The fifth question brought us the game-changing moment at acquiring new habits by consumers in their new behaviour patterns and helped to know what factors consumers value the most nowadays. According to Jusan bank specialists’ observations, the important and game-changing moment for consumers to acquire new habits was after the pandemic.

Marketing expert shares: “Consumers appreciate what saves them time and money. Clients love what saves them time and nerves, so we are trying to implement more additional features for the mobile application”.

Moving to the Forte insights. With the beginning of Covid, the state introduced online receipt of EDS (electronic digital signature) and quickly trained people to use it, a whole boom in digitalization began, behaviour changed dramatically, the bank began to adapt and

The digitalization impact on new patterns in consumer behaviour of the banking industry and strategies implemented by banks based on insights

offer services that were previously offline on the online application, from obtaining certificates to loans.

We began investing in mobile apps in 2017 when we began collaborating with European developers, but a significant breakthrough happened in 2019 when we purchased Dar Tech and then reorganised it into OneTech, a subsidiary that creates all of our products.

The level of customer engagement and satisfaction has increased significantly, particularly when customers did not need to come to the branches for minor and insignificant matters; however, when making complex and expensive decisions, such as obtaining a loan, many customers still prefer to speak with a real person and get answers.

The application is now the main emphasis; it is being developed as a distinct multi-sales channel as well as a chat window with the customer.

This state has made a legislative breakthrough by implementing a digital ID to get a remote EDS.

Conclusion

The hypotheses were validated by both primary and secondary research. This implies that mobile banking has become an intrinsic part of consumers' life, and that the growth of the banking structure has a beneficial impact on both the development of the banking sector and the system itself, as well as consumer behaviour and the formation of new patterns for customers. Based on the data and interviews gathered, it was discovered:

1. Of the respondents of different ages, it was revealed that 223 out of 301 respondents belonged to generation Z or generation Y, and almost 80 respondents were representatives of generation X and baby boomers. When measuring the level of satisfaction with mobile banking. According to the overall score, the satisfaction level of representatives of generations Y and Z increased by 184.2%, and the satisfaction level of representatives of generation X and baby boomers increased by 127%, which is 57% less than the responses of young people. In addition, for a deeper test of the first hypothesis, the difference in consumer behaviour and preferences before the launch of mobile applications was analysed. The results showed that the overall use of QR codes and online purchases among young people was 116%, while among the older generation, these functions received about 69.23%. Young people began to take with them fewer documents, cash, debit cards and use offline banking services by 190% less, and the older generation reduced the number of previously used habits by 108%. In conclusion, although digitalization has affected the lives of all generations, it has still had a greater impact on generations Y and Z.

2. The most significant feature was discovered to be the application's usability and transparency. According to our survey, which was done in numerous Kazakhstan cities, the availability and convenience of a mobile application is one of the most essential aspects for clients when selecting and using a bank. Utility bills, tuition, taxes and penalties, online purchases, instalments and deposits, ticket sales, online payments and transactions are all

critical considerations when selecting a bank. Customers may save time and simplify their life as a result of all of this..

3. Consumers used to be sceptical of new technology innovations, but today they welcome new potential to simplify and enhance banking operations. Mobile banking is fast gaining popularity among people of all ages due to its ease (no need to visit a bank office), profitability (cashback is now feasible), and other benefits. As a result, customers will avoid dealing with banks that are falling behind in terms of digitization (193 (64.1%) respondents stated that the availability of a mobile application was one of the reasons they picked a bank). This research and interview revealed how actively customers use online banking programmes, how new features are brought into everyone's lives, and how their preferences vary over time. As a result, the primary purpose of the banking system is to digitalize mobile apps for the convenience of present and prospective customers. The move to digitization is now an important factor in influencing customer preferences and expectations.

Research question. “How does digitalization form new consumer patterns in the banking industry?”.

Starting from responses and analyses of survey questions, we have identified that mostly consumers chose banks depending on whether they have mobile applications and depending on the quality of their services. According to our statistics, it turns out it is truly important for banks to have a user-friendly interface and additional functions in the mobile application as consumers value these factors. Information regarding the use of application points out most customers started using bank mobile applications as soon as they became available, and other majority answers say that this happened with Kaspi bank updates. However, according to bank experts' responses from the interview, customers first were hesitant about online services even if they already had an app, but digitalization and Covid-19 had sped up the process of people adapting to mobile banking. Next, if we look through

consumers' favourite features and functions, QR payment, payments of utility, taxes and fines, online purchases are determined to be the popular ones. These functions allow customers to carry out processes online from the comfort of their homes. This and the fact that people now have quick access to a bank account due to digitalization developed such new patterns like no need for cash money and documents, and a propensity to shop online through mobile banking because it is convenient when everything is on one platform. It means nowadays as consumers get used to automated processes in their everyday life, they will be waiting for technological development and be aware of banks' news. We assume that from now on, customers will not accept less; if a bank has no mobile application, they have minimum probability to catch customers' attention and interest.

Recommendations

Recommendation 1

Considering the generation that grew up with new technologies is refusing to wait for the bank to adapt to integration and cooperation with fintech, banks today must strive toward digitalization in order to maintain market share. This is a crucial step to prevent losing its potential consumers.

Digitalization has already demonstrated how it can make banking services more user-friendly and convenient. It has also demonstrated how technological advancements present new opportunities for consumers, such as students who can access their bank accounts from anywhere at any time using their phones and receive bonuses for doing so or business owners who can accept payments without a customer's debit card.

The study indicated that consumers are highly interested in going digital. This demonstrates both the high level of consumer interest in the migration to mobile apps and their desire to see them developed further, as well as the extensive use of new technology in banking services.

Recommendation 2

We have discovered in this thesis that the development of mobile applications is critical for consumer demand. As a result, based on our final question in the questionnaire, we may recommend that banks provide the capabilities that consumers requested. They identified many possibilities for extra functionalities that they wish to add to the banks' mobile applications based on their experience with mobile banking applications and their vision and preferences. The correspondents specifically requested taxi services, biometrics (payment by fingerprint, retina, etc.), food delivery services, and user interface improvements in mobile banking. Finally, we recommend that banks heed their customers' demands and continue to improve mobile banking. As a result, they will add new features to the application, increasing consumer demand and making their bank more innovative and desirable in the eyes of customers.

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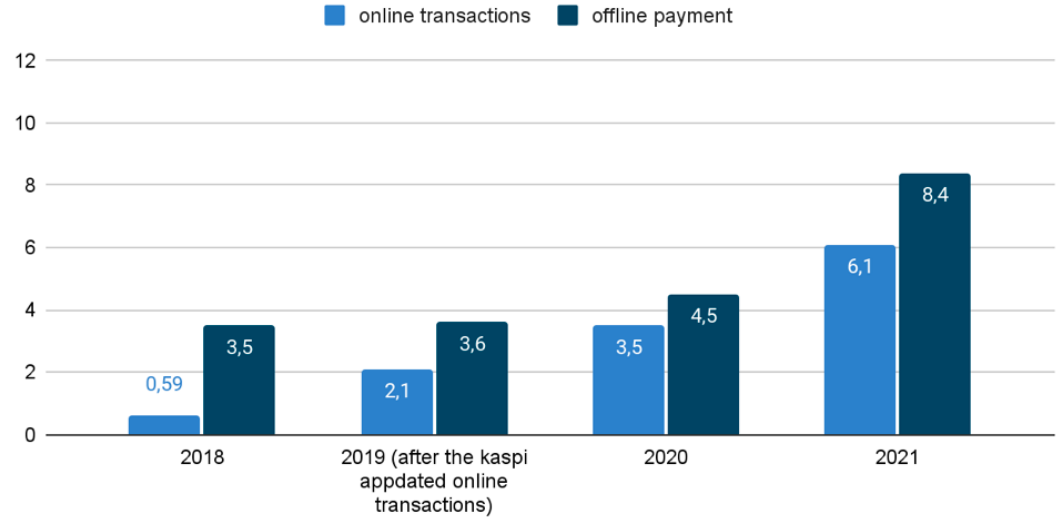
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Appendix A

Exhibit 1

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Change in the amount of non-cash payments from 2018 to 2021



Appendix B

Exhibit 1

1. Your age:

301 ответ

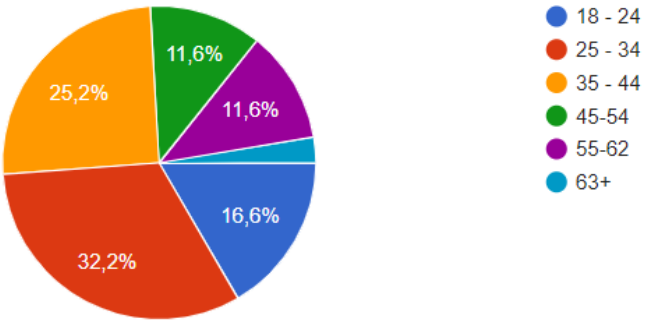


Exhibit 2

2. Your gender:

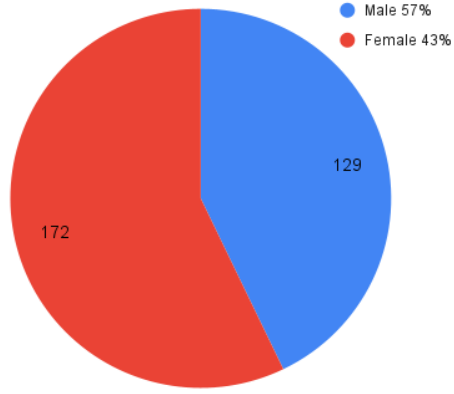


Exhibit 3

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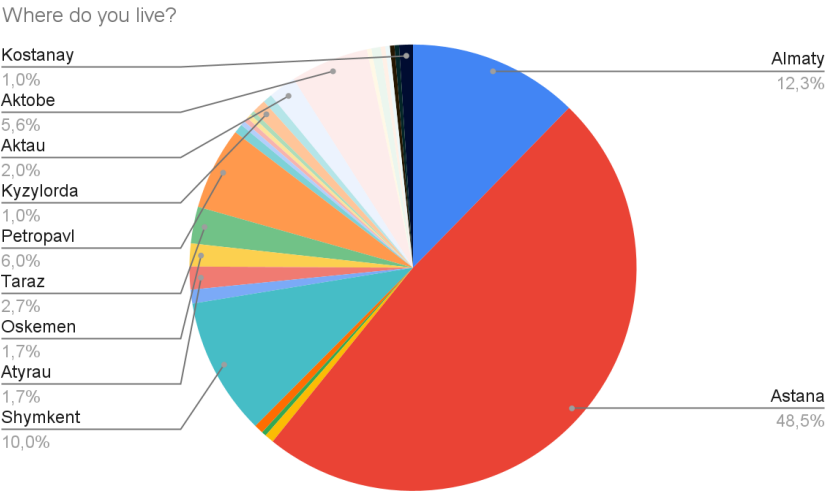


Exhibit 4

What is your occupation?

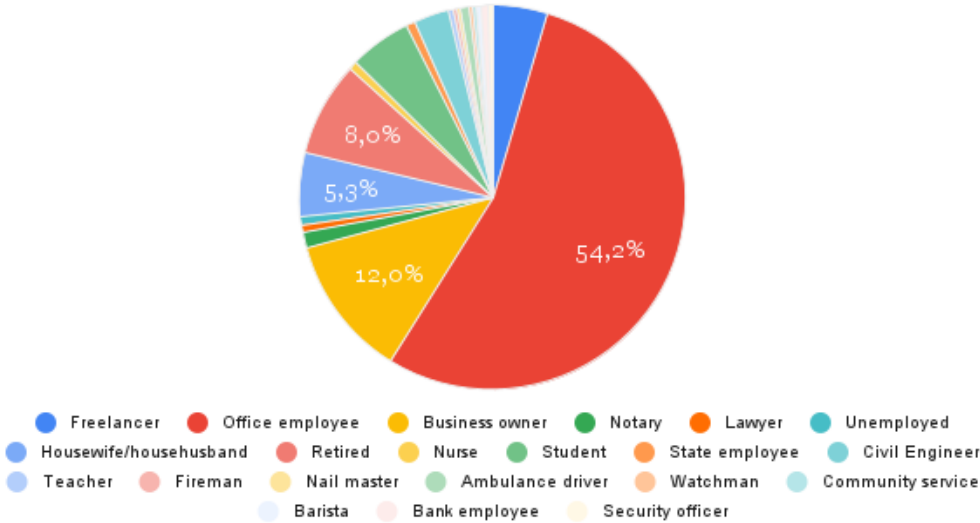


Exhibit 5

What is Your salary? (tg)

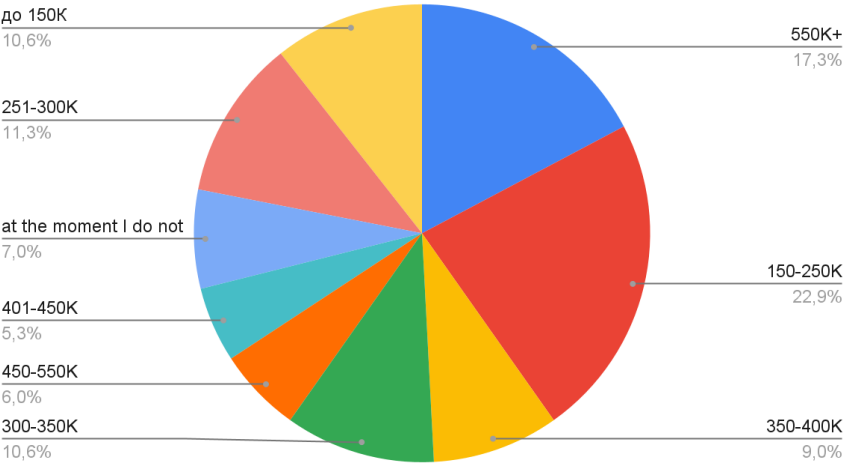


Exhibit 6

6. What banks do you use now?

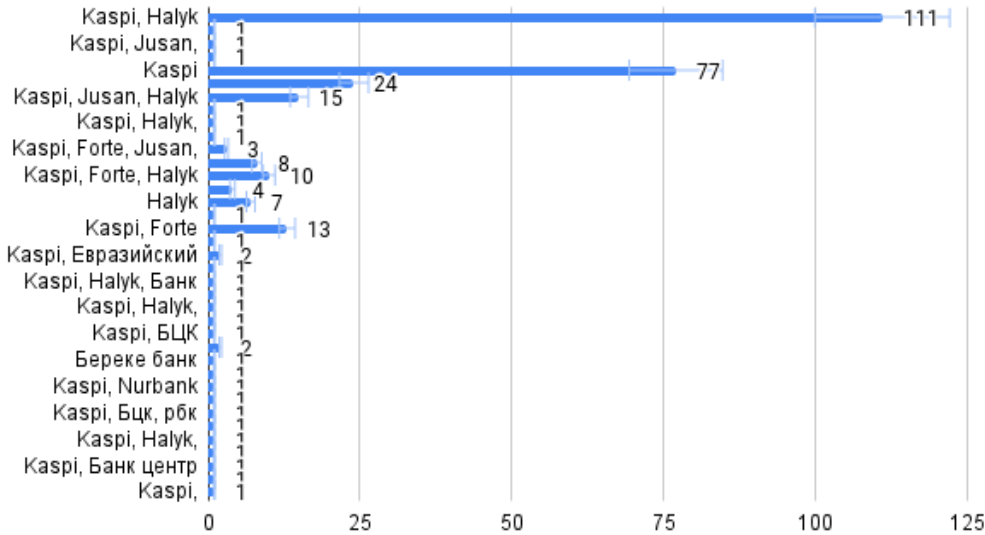


Exhibit 7

Which bank is your main bank at the moment (largest deposit/account, largest loan, etc.)?

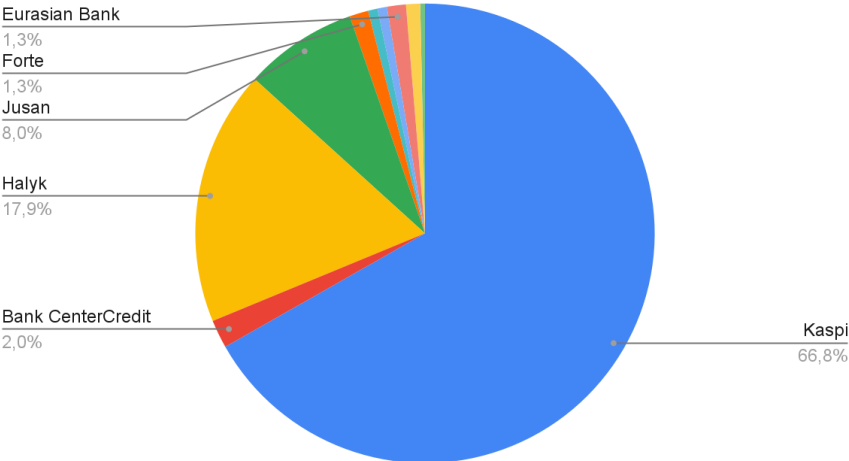


Exhibit 8

8. How long have you been using this bank?

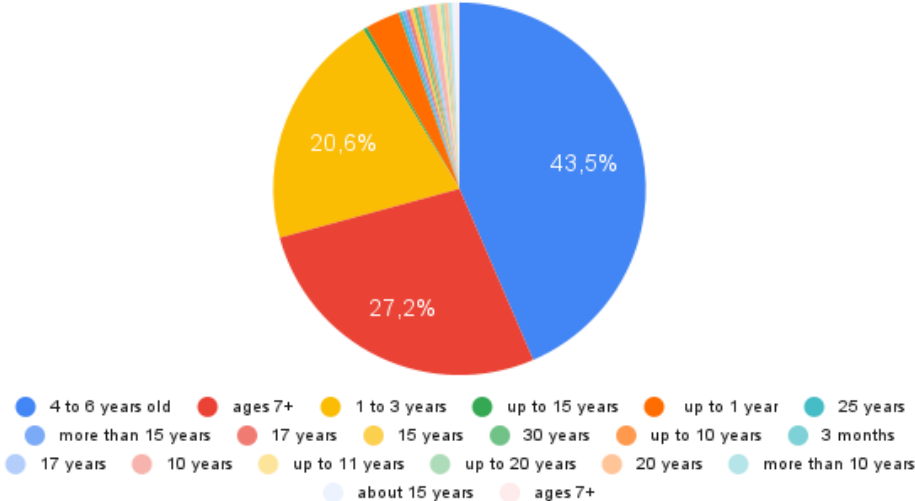


Exhibit 9

Why did you choose this particular bank?

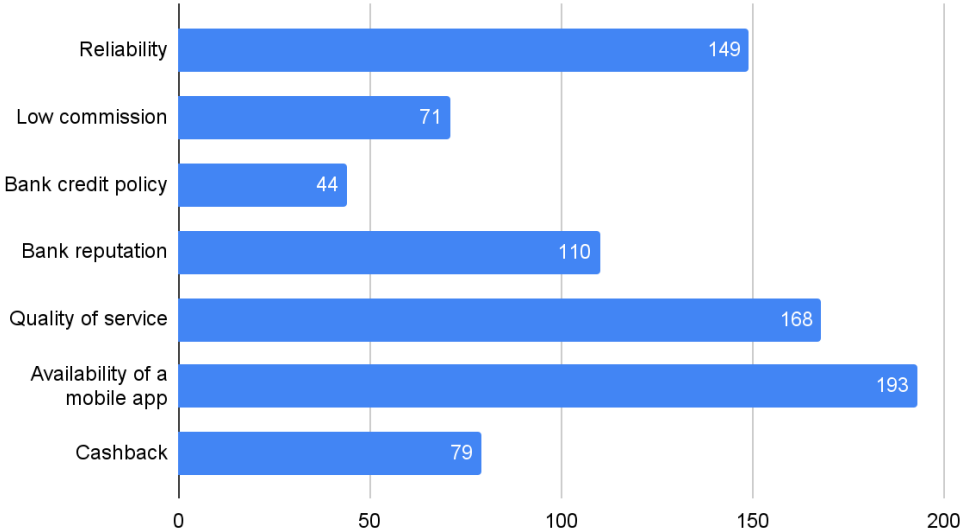


Exhibit 10

The digitalization impact on new patterns in consumer behaviour of the banking industry and strategies implemented by banks based on insights

10. Rate the quality and speed of services provided by the selected bank from 1 (where 1 - completely dissatisfied) to 5 (5 - completely satisfied)

301 responses

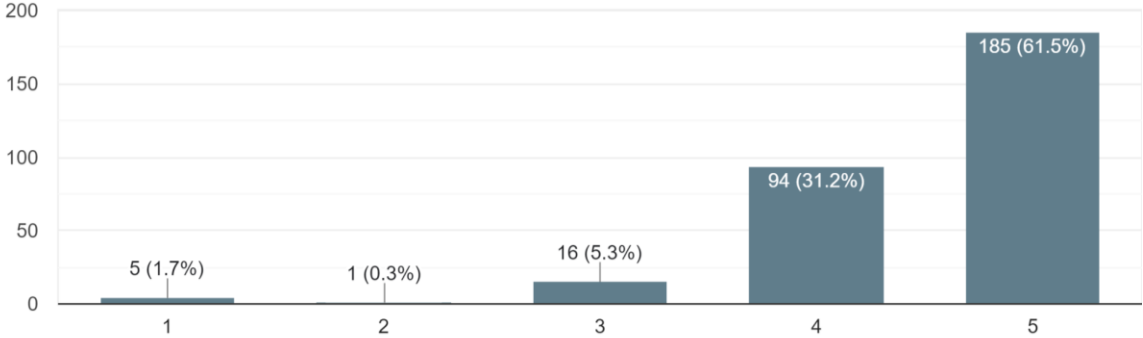
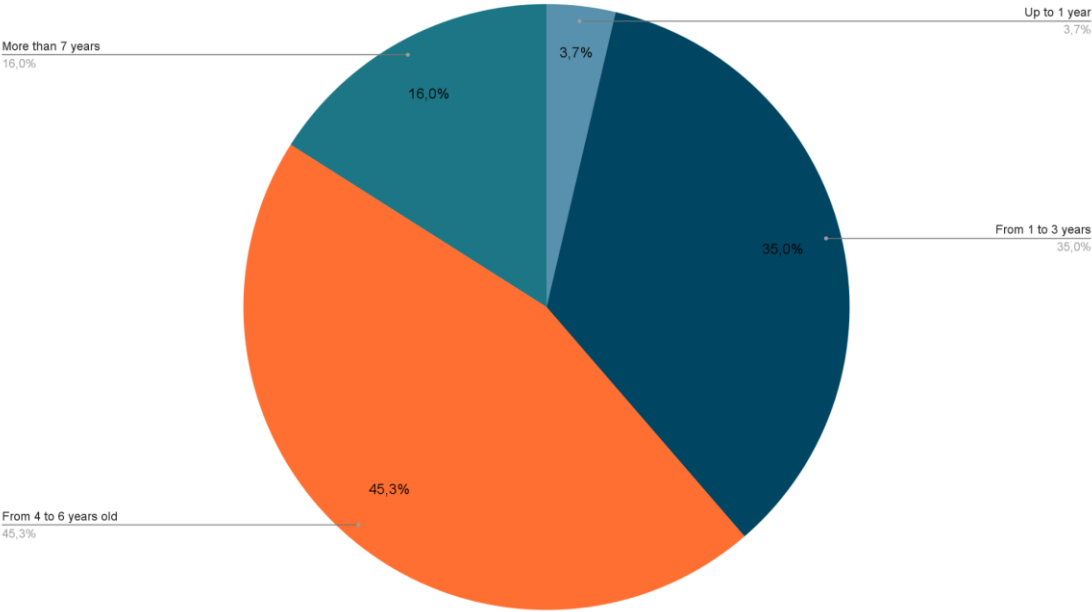


Exhibit 11

How long have you been using the mobile app?



Number of years	up to 1 year	from 1 to 3 years	from 4 to 6 years old	more than 7 years
Bank name				
Kaspi	2 users	64 users	109 users	26 users

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Number of years	up to 1 year	from 1 to 3 years	from 4 to 6 years old	more than 7 years
Jusan	5 users	13 users	3 users	3 users
Halyk	2 users	21 users	14 users	17 users
Home credit bank	2 users	1 user	3 users	1 user
Bereke Bank		2 users	1 user	
Eurasian Bank		1 user	1 user	2 users
Otbasy Bank		2 users	1 user	

Exhibit 12

When did you start using mobile banking more often?

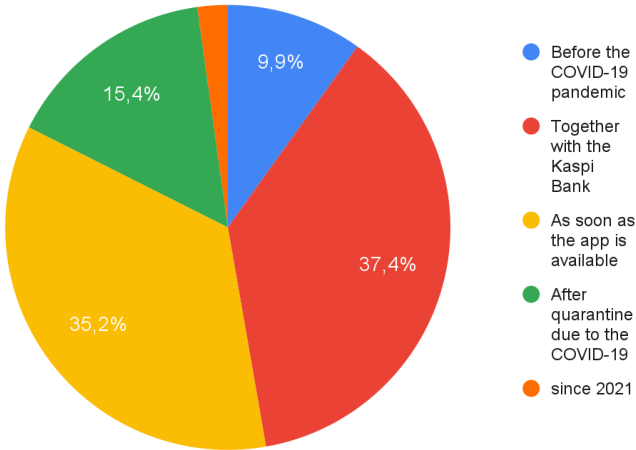
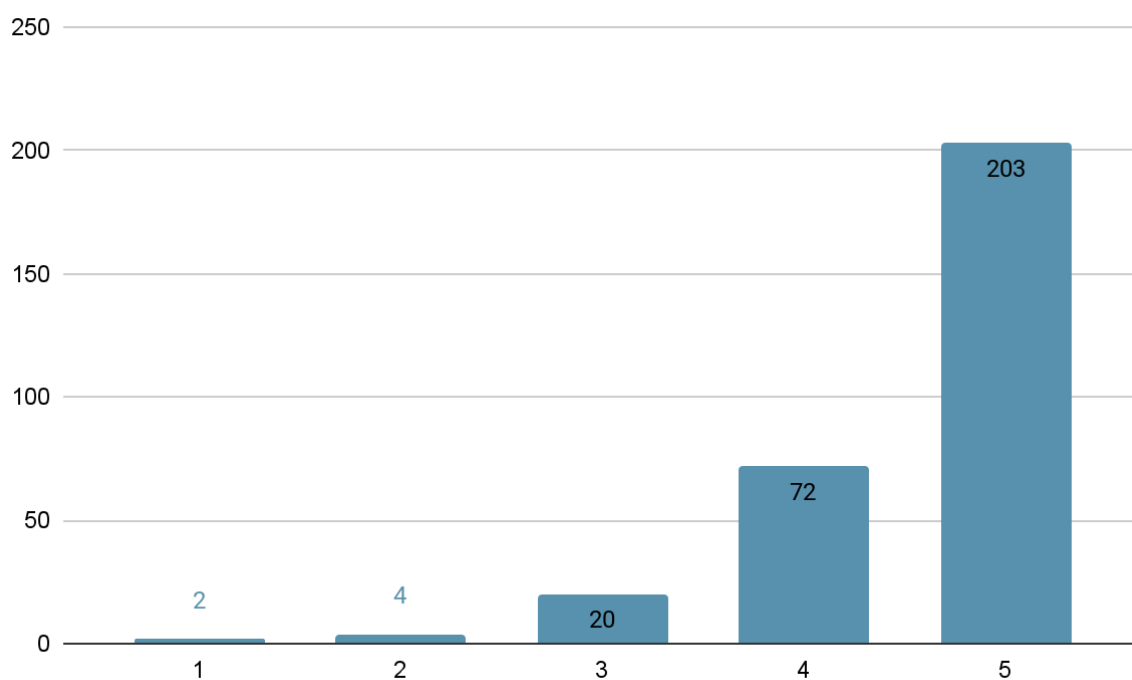


Exhibit 13

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Bank quality assessment				
The main bank of users	5 (fully satisfied)	4 (satisfied)	3 (partially satisfied)	2 (not satisfied)
Kaspi (201 users)	158	37	4	2
Halyk (54 users)	20	20	11	3
Jusan (24 users)	14	6	3	1
Home Bank Credit (9 users)	5	2		
Bereke Bank (3 users)	1	1	1	
Eurasian Bank (4 users)	2	2		

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Bank quality assessment				
The main bank of users	5 (fully satisfied)	4 (satisfied)	3 (partially satisfied)	2 (not satisfied)
Otbasy Bank (3 users)	3			
Nurbank (1 user)	1			

Exhibit 14

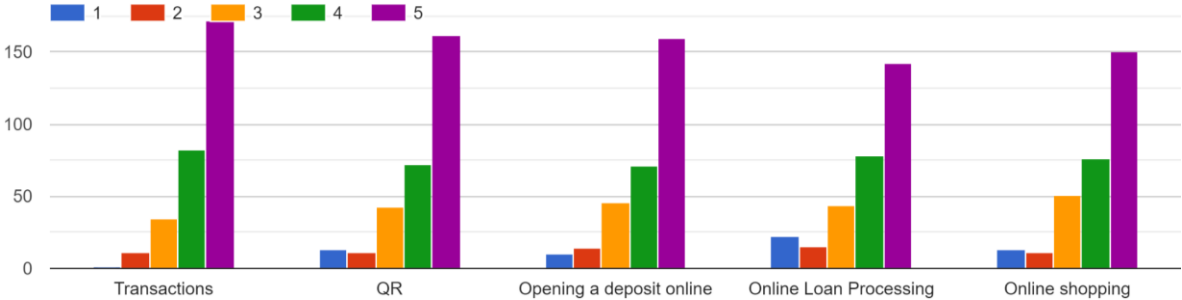


Exhibit 15

What are your favorite features of your bank's app?

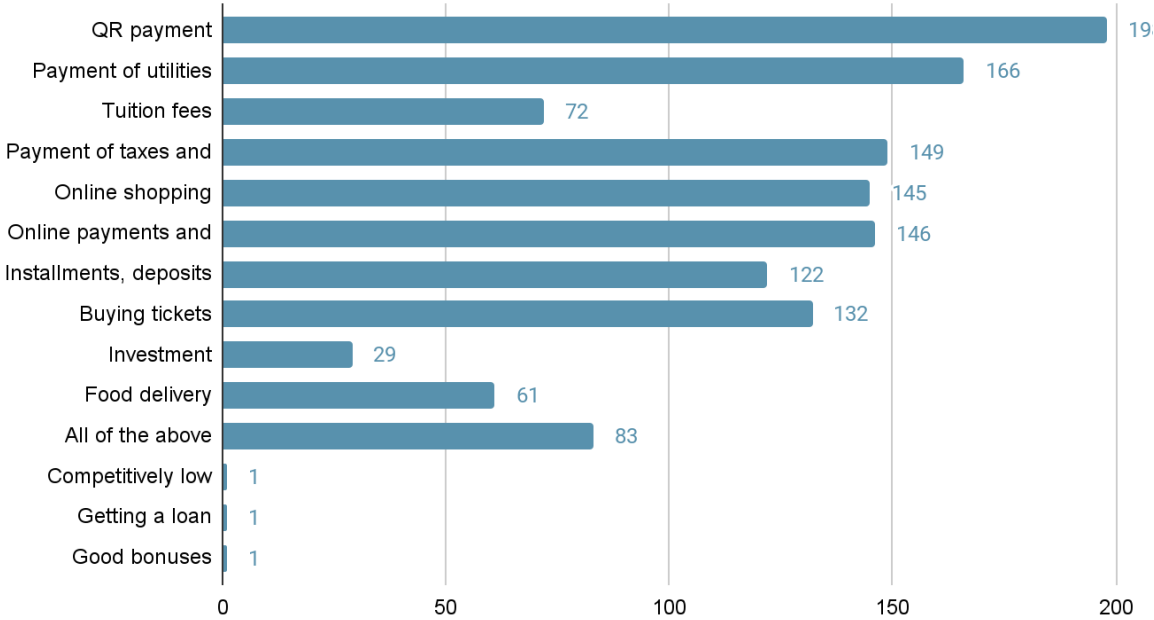
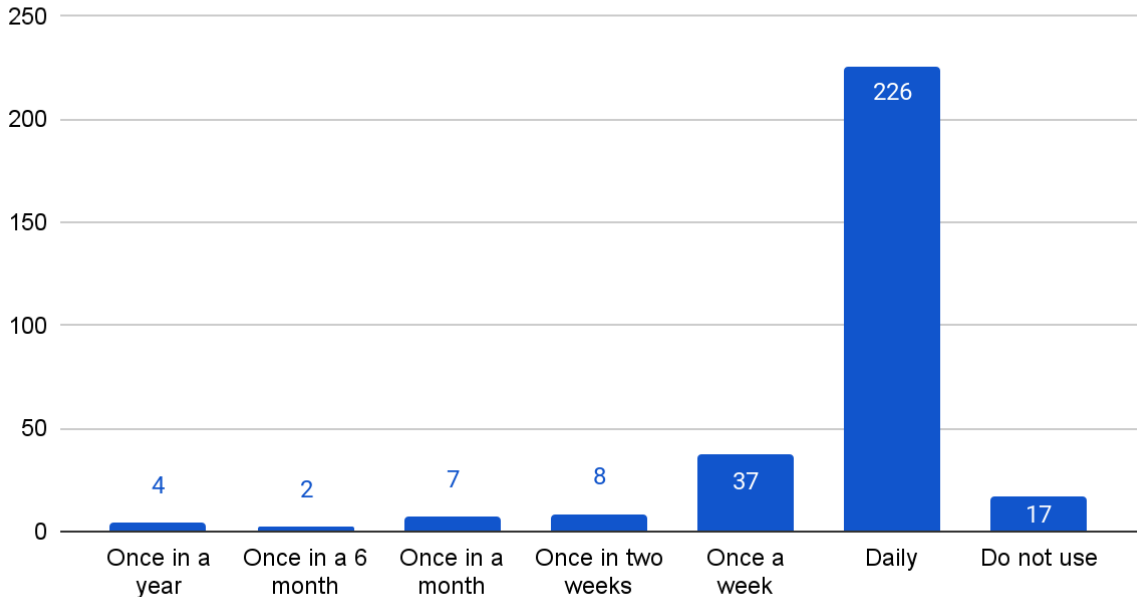
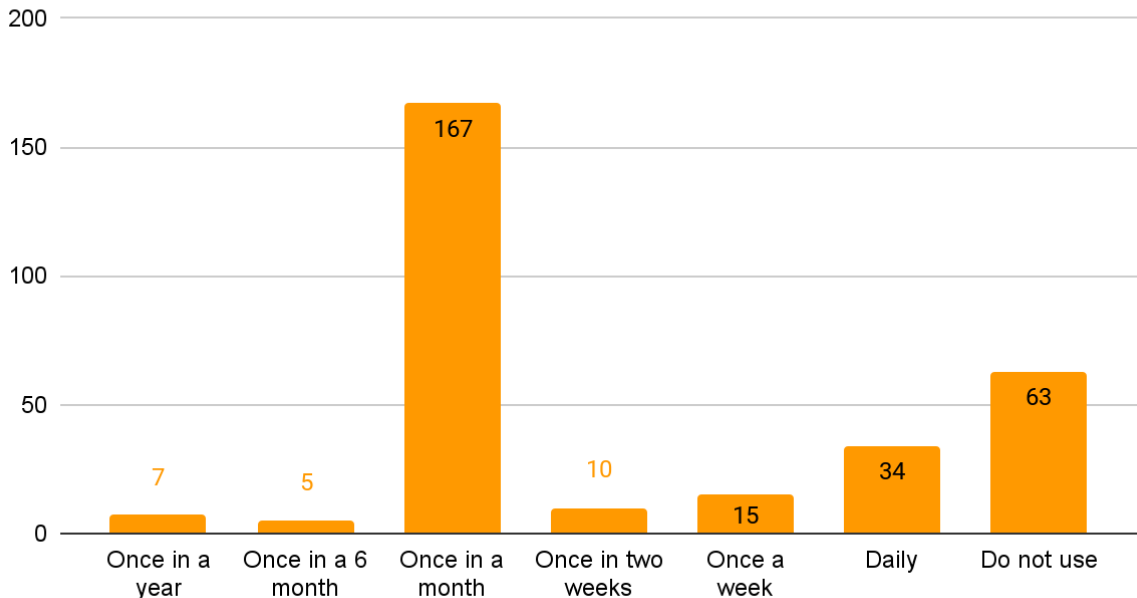


Exhibit 16

QR Payment

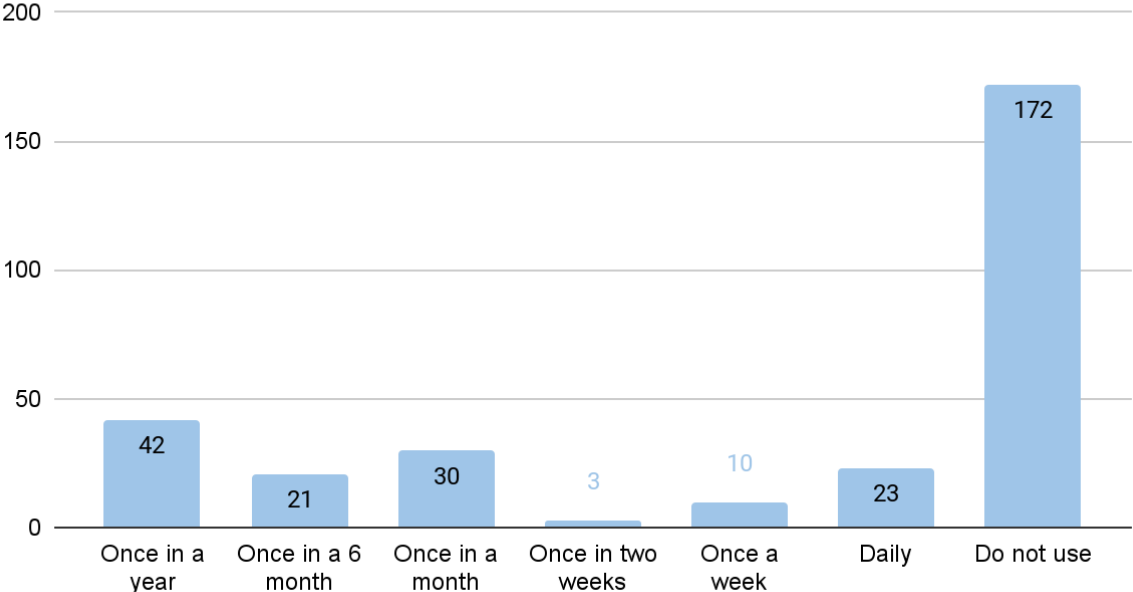


Payment of utility services

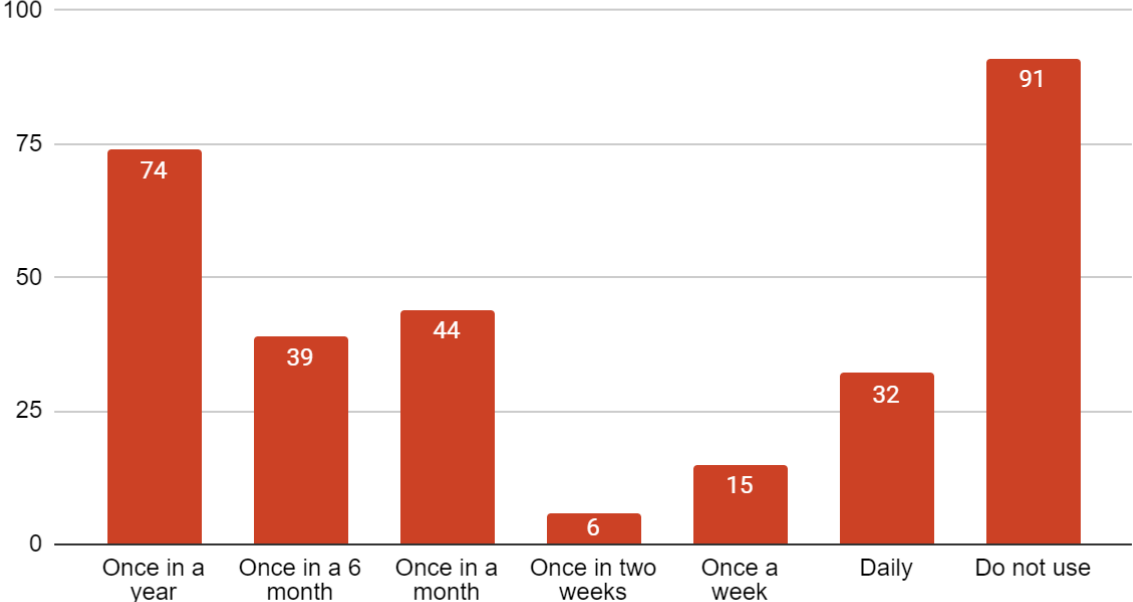


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Tuition fees

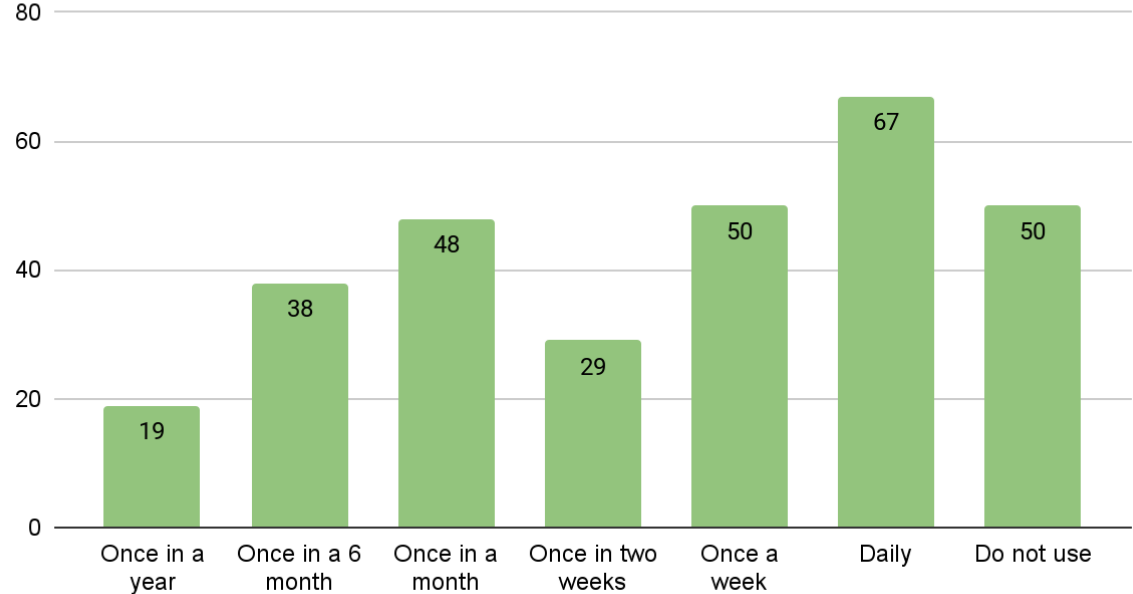


Payment of taxes and fines

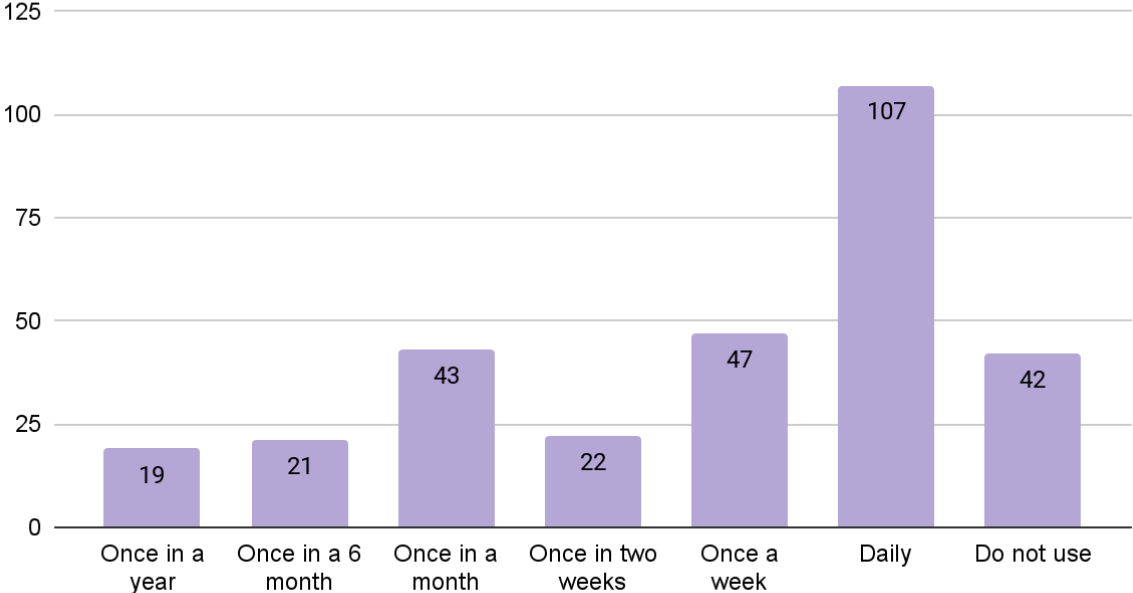


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Online payments and transactions

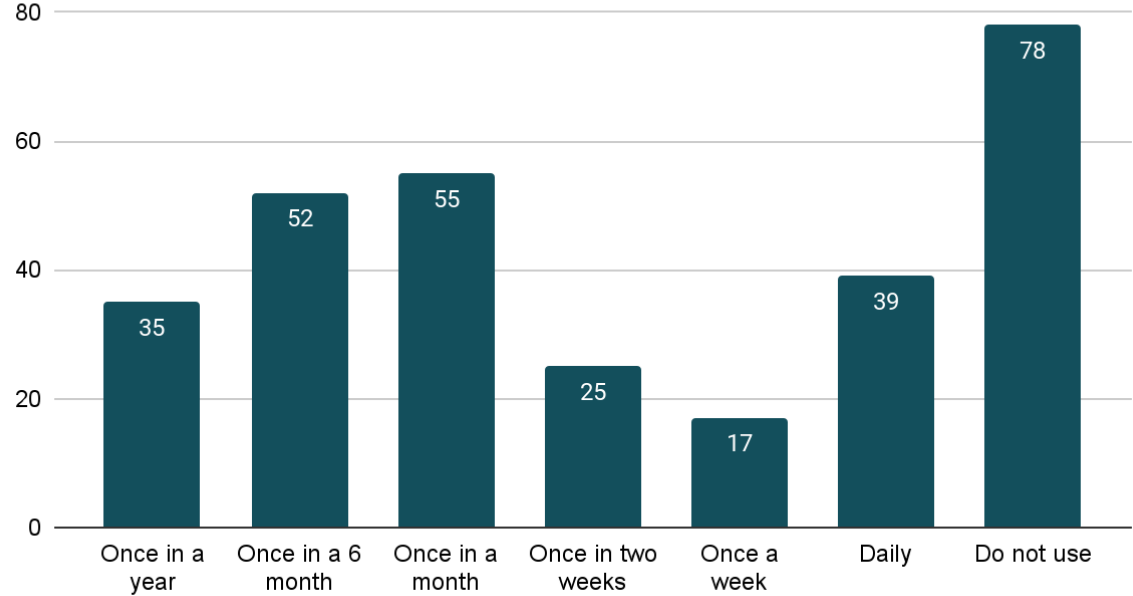


Installments and deposits

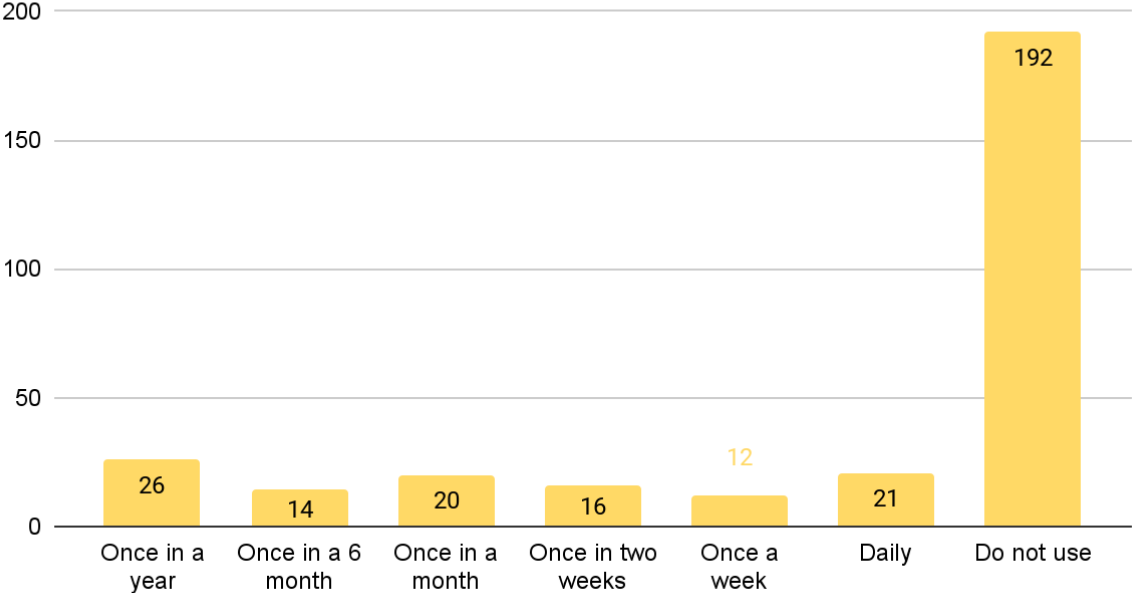


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Buying tickets

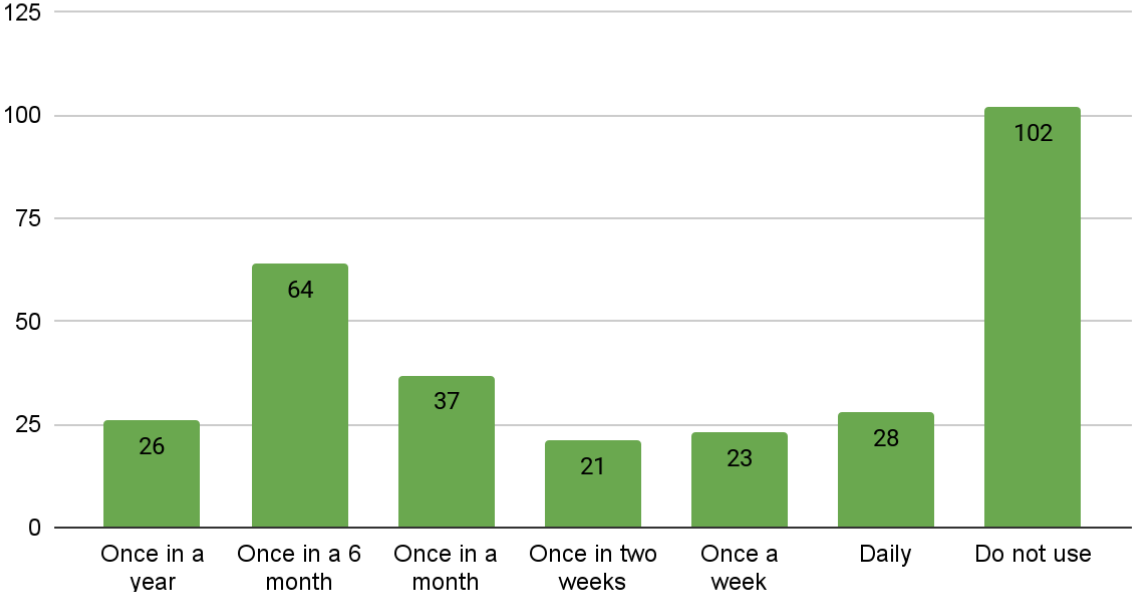


Delivery of products



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Investments



Online shopping

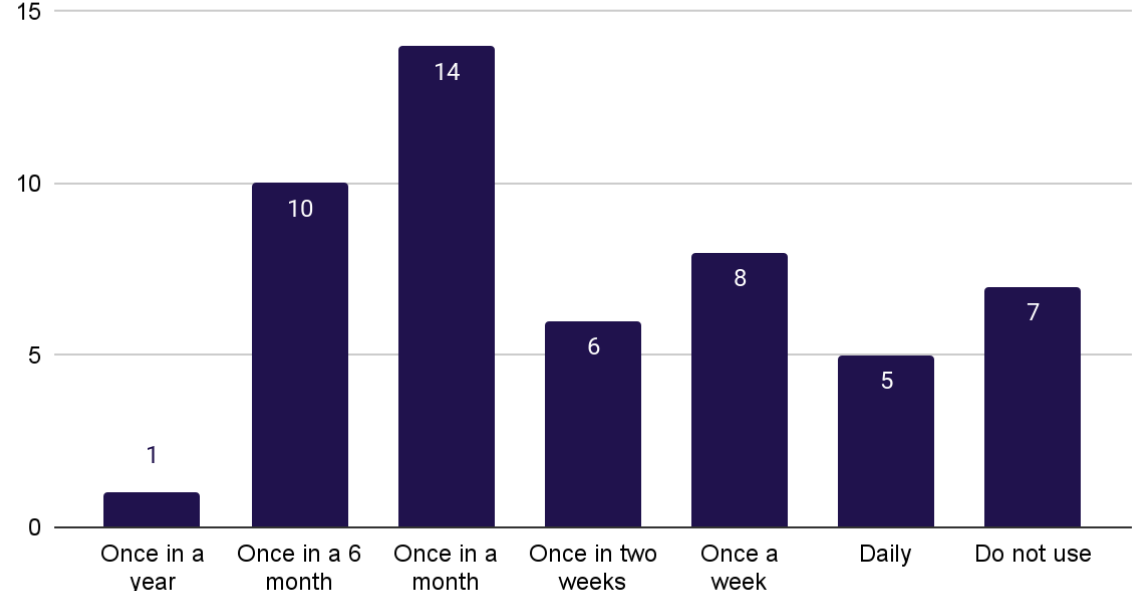


Exhibit 17

The digitalization impact on new patterns in consumer behaviour of the banking industry and strategies implemented by banks based on insights

What factors do you value most about using the bank app?

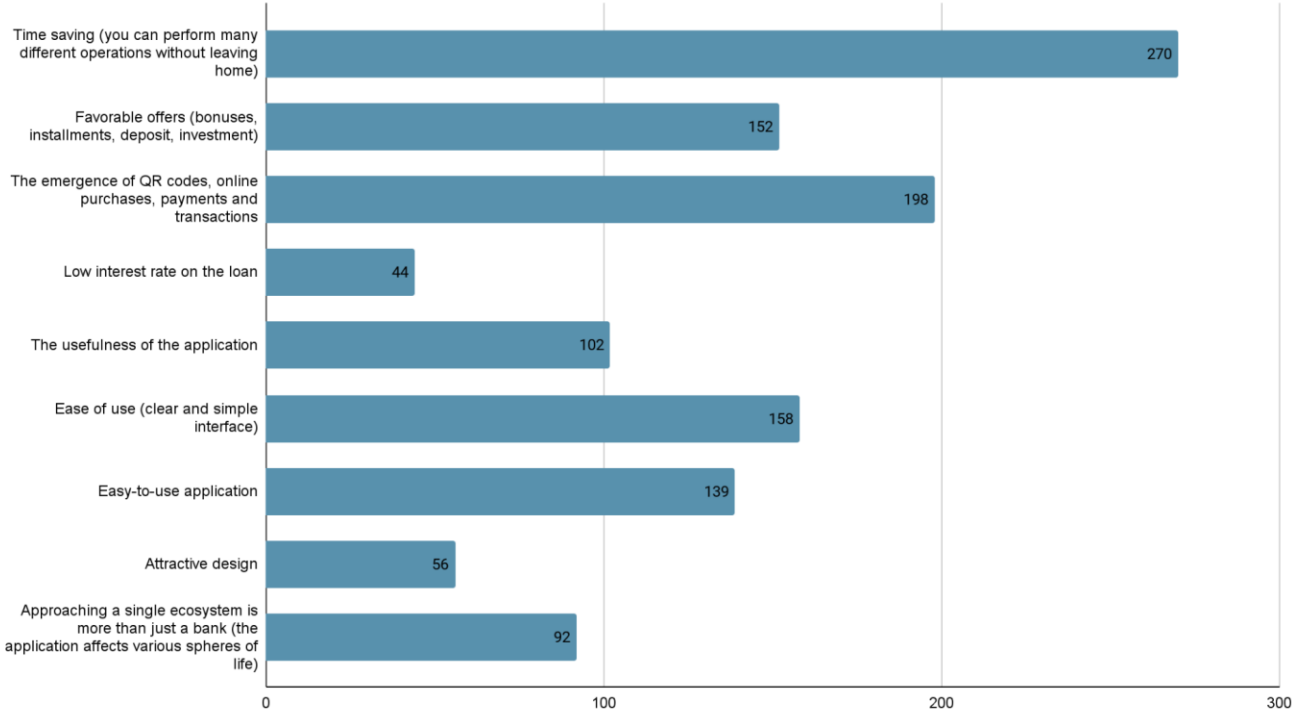


Exhibit 18

What habits have you developed after frequent use of mobile banking?

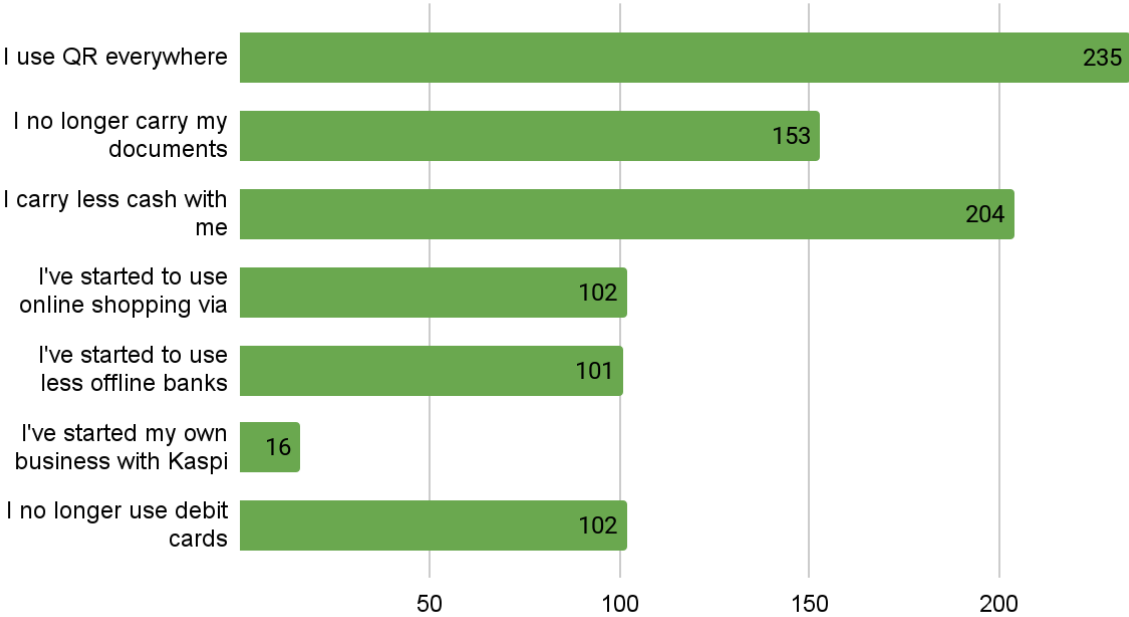


Exhibit 19

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How has your experience with bank services changed since you started using mobile banking apps?

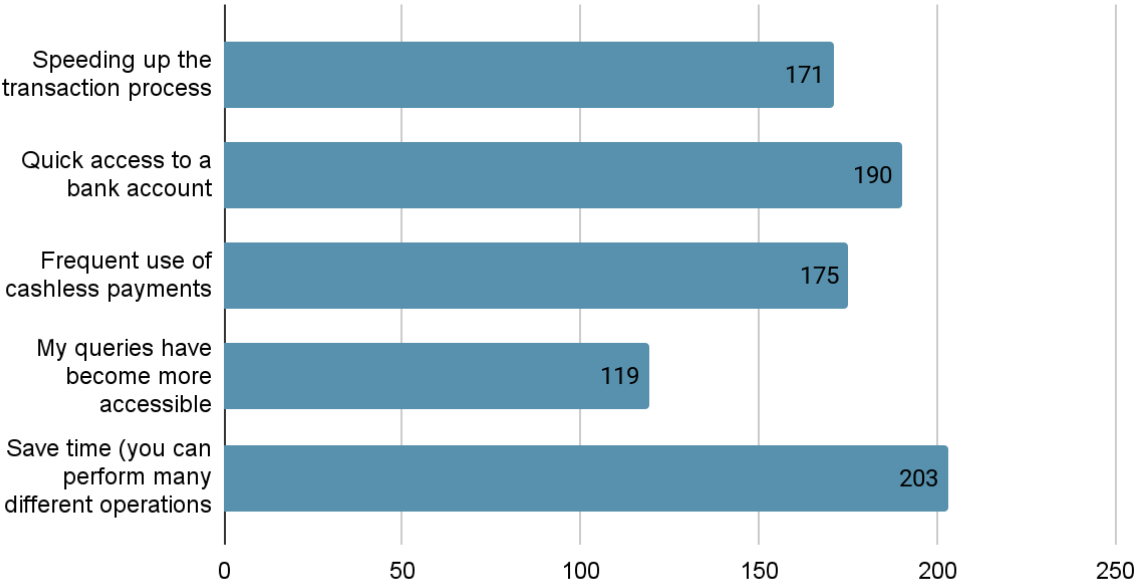


Exhibit 20

What new features would you like to add to your bank's mobile app?

