RISKS AND OPPORTUNITIES

GRI 102-46

2018 was another year of great challenges and opportunities. The major risks businesses are and will be facing today and tomorrow are not the same as yesterday. Within this chapter we will share 11 types of risks and opportunities that we believe are relevant for the banking sector, shaped by this year's mega trends and how they impact Garanti and our stakeholders.

Below mentioned risks and opportunities are addressed through a variety of hard and soft controls such as Garanti's risk management approach and through initiatives carried out under the framework of material issues as explained in performance chapters and in the "Corporate Governance & Risk Management" section.



Challenges and opportunities with regards to the Turkish Economy and Turkish Banking Sector are further addressed in "The Environment We Operate In" section.

BUSINESS ENVIRONMENT



Global growth rates have been on a decelerating trend. There are a few major risks posing a threat on global growth in the mid-term: stabilization in the US growth with a possibility of a recession, trade frictions stemming from the US-China dispute, political risks in Europe and geopolitical risks in the Middle East. In an environment of rising uncertainties, investors become more selective and funds are allocated more to quality stocks. In such an environment, we will focus on expanding our shareholder base and continue to deliver the value generation through our sustainable business model. Garanti is the proxy and the most liquid stock of Turkey; therefore, changes in the global sentiment towards the region may have a direct impact on Garanti's market valuation. In order to cope with the impacts of the sudden shifts in markets, we target to increase the share of our long-only funds in our shareholder base and diversify their geography.

2018 MEGA TRENDS AND RISK DRIVERS

BUSINESS

- Customer Empowerment
- The Future of Work
- Competition for Talent
- Transparency
- Efficiency
- Transition risks (regulatory landscape)
- Demand for customization
- Empowered women
- Next-Gen workforce
- Social media
- Connectivity

ECONOMY

- Sustainable finance
- Capital Allocation
- Financial Health & Inclusion
- Sharing economy
- Globalization

SOCIETY

- 21st century skills gap
- Sustainable development
- Growing inequalities
- Forced migration
- Food security
- Entrepreneurship

ENVIRONMENT

- Climate Change
- Extreme weather events & natural disasters
- Resource Scarcity
- **Environmental Awareness**

TECHNOLOGY

- Automation
- Big Data, IoT & Al
- Cloud
- Cybersecurity
- Blockchain & cryptocurrencies
- Data privacy & responsible use of
- Digitization

In the light of macro developments, we aim for optimum capital allocation and work to sustain the risk-return balance. For sustainable value creation, we adopt a capital generative growth strategy. As a consequence of the rebalancing in Turkish economy, we foresee a decrease in foreign currency lending, accompanied by a slowdown in Turkish lira lending.

The operating environment is transforming and within this transformation, efficiency is among the top priorities of many banks. The transformation of the sector is shaped by three main factors that interact with each other: (i) continuous development in technology, (ii) customer expectations that are redefined every day by the developments in technology and the needs of the changing world, (iii) a competitive environment that requires better understanding of customers than ever before and the ability to offer the right service in a timely manner by closely monitoring their changing expectations. In such a dynamic operating environment, every point of the banking value chain is being redesigned in a structure that is integrated with new technologies. Accordingly, we started a transformation journey and redesigned our branches bringing to life a new lobby service model and a new branch layout, digitized processes, empowered employees and enhanced customer journey. With the branch transformation, we successfully increased efficiencies while highly compatibly satisfying the changing needs of the customers.

Rapid changes in the world are introducing new risk factors to be considered in investment decisions. Changing trends compel investors to assess the impact of global warming, changing demographics, privacy concerns and regulatory framework on their investments. This realization gave rise to ESG investing. We are aware of the transition risks and the increasing demands of the ESG investors. Being a company listed not only in Turkey but also in the UK and the US, we always strive to operate within globally recognized high standards. In order to better address the needs of our diversified shareholder base, we published our first Integrated Annual Report in 2017 in line with IIRC standards. Paying the utmost attention to transparency, we simultaneously make the public information available on our Investor Relations Website as well as our Sustainability Website both in Turkish and English, and publish all relevant disclosures on the international disclosure platforms of the US and the UK. We also comply with the corporate governance principles set by the banking legislation, capital market legislation as well as the Turkish Commercial Code and other applicable legislation.

We pay maximum attention to implement these principles. We periodically update our reports and website, making them available to all our stakeholders.

CONTRIBUTION TO SUSTAINABLE DEVELOPMENT



Environmental, social and economic trends such as increasing population, diminishing resources and the broadening wealth gap are among the grand challenges facing our society today. To tackle these issues, governments and the business world must focus on positive impact and responsible investments. The momentum gained by the UN Sustainable Development Goals (SDGs) triggered concrete actions all around the world. Achieving the SDGs globally will require USD 5 to 7 trillion a year until 2030. For the developing countries, this means a USD 2.5 trillion gap per year. This only further emphasizes the critical role of financial institutions. Being fully aware of its important role, in 2018, the banking sector embarked on a journey to redefine and reformulate its responsibilities for achieving sustainable development. Under UNEP FI, 28 banks jointly representing over USD 17 trillion in assets from five continents around the world, where Garanti was the only bank from Turkey, came together to develop the Principles for Responsible Banking. These principles, announced during the UNEP FI Regional Roundtable in Paris on November 26th, will align the banking sector with the SDGs and the Paris Climate Agreement.

As set out in our Sustainability Policy adopted in 2014, Garanti aspires to achieve its aim of sustainable banking through technological innovations, managing the environmental footprint of its operations and developing sound environmental & social risk assessment as part of its risk management framework. Garanti also recognizes the importance of an effective organizational structure and strong corporate governance to maintain ongoing development and successfully deliver its sustainability objectives. Furthermore, we are aware of the need to collaborate and engage with our peers and suppliers on a global level to identify new opportunities, capture emerging best practices & products, and remain a sustainability leader in Turkey. We position ourselves as an advisor for all our stakeholders for sustainable business. In 2018, Garanti offered 33 different types of loans and products to contribute to sustainable development.

One of the solutions that Garanti offered in 2018 had been the newly designed green loan structure to encourage our customers to embrace sustainable business models. Garanti signed Turkey's first and the world's fifth Green Loan Agreement with Zorlu Energy for their USD 10 million corporate loan. In the green loan structure, the margin of the loan is directly linked to the sustainability performance of the borrower. A couple of months later, it was also followed by Turkey's first ever Green Project Finance Loan signed between Akfen Renewable Energy and 4 local & 2 international banks, where Garanti is the 'facility agent' and 'green loan coordinator'. The total investment cost of the project is USD 350 million, with USD ~210 million thereof converted into a 'green project finance' agreement. Based on this deal, the pricing will change according to the annual sustainability performance of Akfen.



In Our Material Matters Section, we explain how Garanti addresses the SDGs through the actions we undertake under each material issue and refer to the relevant sections of this Report.

CLIMATE CHANGE ADAPTATION



As predicted in the World Economic Forum Global Risk Report 2018, major global risks arose from climate-related events. Natural disasters that claimed lives and destroyed property globally dominated the news throughout the year. The World Bank has calculated that the real cost to the global economy is a staggering USD 520 billion per annum, with disasters pushing 26 million people into poverty every year.1

According to a recently published UN Report, there is a very sharp increase in the number of climate-related events, which are actually creating 77% of the total direct economic losses caused by disasters. The reported loss of resources and assets like homes, factories and farms due to more frequent and widespread climate-related disasters rose 151%compared to the previous 20-year period. In the last two decades, 1.3 million people have been killed and 4.4 billion were impacted by natural disasters worldwide; reported economic losses from earthquakes, volcanic eruptions, floods, hurricanes and other climate-related disasters surged to total nearly USD 2.9 trillion over the past 20 years.²

We observe a similar trend in Turkey as well. According to the most recent report released by the Turkish State Meteorological Service, 598 extraordinary weather events occurred in Turkey in 2017. The concerning trend since 2000 shows that there is a 4-event increase per year. The breakdown of the extremely damaging events that occurred in 2017 is 36% storm & twister, 31% extreme precipitation & floods, 16% hail, 7% strong snow, 1.5% snowball & frost, and 1% other.3 This is another clear indication that Turkey is both physically and economically prone to these risks and must take immediate action for adaptation and mitigation. As Garanti, we contribute to Turkey's battle against climate change by prioritizing renewable investments, applying detailed environmental & social due diligence, promoting energy efficient buildings and electric & hybrid cars, as well as supporting efficient systems in agriculture. Since 2014, our entire greenfield energy generation projects in the project finance portfolio consisted of renewable investments. To date, we have provided USD 5.1 billion to renewable energy, and hold the market leader position for wind power projects with 28.1% market share. Garanti's environmental and social impact assessment process is fully compliant with international standards. In 2018, a total of 8 of projects with a loan amount of USD 281 million were subjected to our ESIAM. Through detailed action plans based on these due diligences, E&S impacts were minimized.

As a country in the drought zone, Turkey will experience severe droughts and heatwaves in addition to extreme precipitation and floods. Turkey is among the countries that will be extremely water-stressed by 2040.4 If projections come true, with the expected population growth to 100 million people, Turkey will be among the water poor countries by 2030. As we explained in our 2018 CDP Water Security Report, the ratio of financing provided to projects prone to water-related risks by Garanti was 55.2% in our 2017 project finance portfolio. We applied ESIAM to these projects in order to manage E&S risks including those that are water-related. We adopt a holistic approach in order to raise awareness and encourage each segment of the society to take action. For retail banking, we rolled out our Green Mortgage product to promote efficient and environmentallyfriendly buildings, under which total financing provided to date amounted to USD 368 million.

¹ https://www.worldbank.org/en/results/2017/12/01/climate-insurance ² https://www.unisdr.org/files/61119_credeconomiclosses.pdf

³ https://www.mgm.gov.tr/FILES/iklim/yillikiklim/2017-iklim-raporu.pdf 4 https://www.wri.org/blog/2015/08/ranking-world-s-most-water-stressed-countries-2040

In 2018 we witnessed the continued enhanced collaboration and dedication to combat climate change around the globe. UNEP FI launched a pilot project for TCFD⁵ implementation in the financial institutions. Our majority shareholder BBVA was also among the 16 banks that participated in the pilot. The main goal of the pilot was to help banks assess the transitionrelated exposures in their corporate loan portfolios. This represents a first step in the development of methodologies, but further work is needed to improve the ability to assess physical risks and opportunities of climate change. Three combinations of timeframes and temperature scenarios are considered: 2020s -2°C and 4°C; 2040s -2°C; and 2040s -4°C. A range of extreme weather and climate events are assessed. Estimates of changes in revenue, costs and property value are used to evaluate changes in credit risk for individual borrowers and sector portfolios. Garanti will initiate the process to align its operations and disclosures accordingly in the coming years. This new challenge of improving our environmental disclosure will further enhance our existing track record under the global environmental reporting framework.



Specific examples of activities undertaken to address this issue are explained in the Responsible and Sustainable Development section.

SWITCHING FROM FOSSIL FUELS TO RENEWABLES



Divestment from fossil fuels was again a growing trend in all sectors, especially the financial sector. A joint declaration was adopted during the One Planet Summit between the 23 national and regional development banks from the International Development Finance Club (IDFC) and multilateral development banks to increase funding dedicated to the implementation of the Paris Agreement. The World Bank announced its plan to discontinue its financing of upstream oil and gas projects in 2019. Countries also started to announce their pledges to decarbonizing their economy by initiatives like Powering Past Coal Alliance as well as commitments to apply a more significant carbon price. As we declared in our Climate Change Action Plan in 2015, we continued to prioritize renewable energy investments in 2018. To date, loans provided to such projects exceeded USD 5.1 billion. As a pioneer in financing renewable energy projects and being

the largest lender for wind projects in Turkey, Garanti Bank exceeded its goal of prioritizing renewables in project finance as 100% of the total resources allocated to greenfield energy investments was allocated to renewable investments in 2018. Moving forward, Turkey's estimated climate-smart investment potential is estimated to be USD 270 billion between 2016 and 2030. This also clearly shows the future investment need and the critical role of financial institutions. Specific examples of activities undertaken to address this issue are explained in the Responsible and Sustainable Development section.

TRANSITION RISKS



As governments and the business world started to take concrete actions for climate change, these steps also brought along some regulatory updates. We saw various incentives as well as new limitations and restrictions from governments. One of the widely discussed regulatory changes is in regard to carbon pricing. There is a collective global project called Partnership for Market Readiness (PMR) led by the World Bank. PMR is a multi-stakeholder project where numerous players in the carbon pricing field is brought together to support the preparation and implementation of climate change mitigation policies in order to scale up GHG mitigation such as carbon pricing instruments. Turkey is an active member of the project and among the 19 implementing countries. The Ministry of Environment and Urbanization is currently working on a structure to implement a national ETS. As Garanti, we have a holistic approach to manage these risks and to reduce the carbon intensity of our portfolio. Firstly, we apply a shadow carbon price and positive pricing on renewable investments in our lending activities within the project finance scope. Secondly, we apply a combined Sensitivity Analysis to decrease the dark/spark spread. Finally, we minimize and eliminate E&S risks through our detailed due diligence process in line with international standards. We also pledged to have a minimum of 70% renewable share by 2020 in our project finance transactions. Since 2014, 100% of all greenfield energy generation projects financed by Garanti was allocated to renewable investments.

Another busy area in terms of regulatory changes was data protection. With the new Law on the Protection of Personal Data that came into force in 2016, we had to update all our procedures, contractual agreements, and processes. The said

⁵ Task Force on Climate-related Financial Disclosures

law is the first regulatory legislation in this field and it provides comprehensive protection for the personal data of individuals. The law also aims to protect individuals' interests, while regulating the processing of personal data and eliminating insecure personal data processing environment. In this context, we first made a risk prioritization and developed an action plan within the frame of a compliance program. Governance of this program is managed by a data protection team. Main actions under the compliance program are as follows: preparation of personal data inventory, integration of explicit consent and information form to core banking transactions, and destruction of expired personal data. However, identification and follow-up of KPIs, review of archive processes, and keeping all inventories up-to-date with automated processes are considered as improvement areas.

The Compliance Department also made further investments in anti-money laundering and counter terrorism financing programs, and incorporated these programs into Garanti's systems. The Department also started on projects where big data analysis is utilized to tackle these risks.

GROWING INEQUALITY



In the Global Wage Report, the International Labour Organization highlighted that worldwide earnings growth has been decelerating since 2012. According to the IMF, over the past three decades 53% of countries have seen an increase in income inequality, with this trend becoming particularly pronounced in advanced economies.6 Rising income and wealth disparity ranks third as a driver of global risks over the next 10 years.

Political and economic landscape is not the only driver for growing inequality. Without the right policies to keep the poor safe from extreme weather and rising seas, climate change could drive over 100 million more people into poverty by 2030. This number will just be an addition on top of the 900 million people expected to be living in extreme poverty if development progresses slowly. UN Office for the Coordination of Humanitarian Affairs' Global Humanitarian Overview (OCHA, 2018) estimates that 134 million people would require humanitarian assistance worldwide in 2018. It further estimates that around 97.4 million people would be selected for international assistance under the joint humanitarian response plans, leaving a 27% gap.7 2018 World Disasters Report also states that there are 12.8 million people in Turkey in need of assistance 8

It is also estimated that 200 million people will be displaced due to climate change by 2050, where Turkey is considered to be among the countries that will attract immigrants and consequently will be significantly affected due to limited resources. Climate change was not the only factor in the increasing inequality trend. Turkey already hosts more refugees than any other country. Considering the predicted migrations due to climate change in addition to the current situation, the issue becomes even more urgent and challenging.

Tackling these challenges requires extreme determination and dedication globally. Growing inequality is resulting in devastating economic and social impacts. The fight against inequalities related to wealth gap, gender, race, ethnicity and social class will be of paramount importance in the coming years.

Garanti is dedicated to tackle this problem by improving financial health of its customers and offering innovative solutions for financial inclusion. With 33 different products and solutions, we helped 85% of our customers to make betterinformed financial decisions in 2018.

Another global effort to reduce inequalities is seen in gender equality. Especially the business world is taking strong initiatives and driving significant impact to tackle this issue. Several studies show that not having a diverse group of people causes less profitability. On the other hand, increasingly more directives require concrete and effective measures to promote diversity and inclusion in companies.

Creating and fostering a more diverse workplace for our employees is part of our diversity and inclusion strategy. We follow up data analysis concerning different aspects like gender, age, education, etc. and take measures for these groups. At Garanti, the overall ratio of women employees is 58% for the whole Bank and 40% for managers and higher levels. With its pioneering practices in this field, Garanti has qualified to be included in the Bloomberg Gender Equality Index for three consecutive years as the first and only company from Turkey.

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⁶ http://www3.weforum.org/docs/WEF_GRR18_Report.pdf 7 https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2018/10/B-WDR-2018-EN-LR.pdf

⁸ file:///C:/Users/cerenso/Downloads/B-WDR-2018-EN-LR pdf

In order to attract, maintain and cultivate talent in a company, it is essential to have modern diversity and inclusion policies capable of integrating people from different professional and personal backgrounds and allowing them to grow professionally.



Examples of such activities can be found in Investing in Human Capital and Customer Experience sections.

SUPPORTING ENTREPRENEURSHIP



Youth unemployment is set to remain an important global challenge - particularly as demographic shifts in developing countries gather pace - and will continue to amplify numerous domestic and global risks, including social exclusion, mass migration and generational clashes over fiscal and labour-market policies. According to the latest results of an annual World Economic Forum survey of more than 30,000 young people globally in 2017, respondents from MENA cited the "lack of economic opportunity and employment" as the most serious issue facing their country. As Garanti, "Bringing the age of opportunity to everyone" is our purpose and we are strongly urging our customers and society to tackle this challenge.

In order to realize our purpose, we carry out many initiatives that support entrepreneurship. In June 2016, we have launched GarantiPartners Entrepreneurship Base in collaboration with Boğaziçi University Business Angels (BUBA) Angel Investors Platform to help flourish the entrepreneurial ecosystem in Turkey. GarantiPartners helps startups grow with specific support, develops strategies together with the entrepreneurs, helping them prepare a comprehensive business plan to put their projects into action, and contributes to their sustainable growth. During this process, we provide working space, mentorship, cooperation and references, marketing activities, consultancy services, training and seminars, technical and infrastructure support and access to finance for these initiatives. In 2018, GarantiPartners organized 24 events for entrepreneurs and the entrepreneurial ecosystem. Today, 13 startups are supported by the program.

We are also the main sponsor of the Entrepreneurship Foundation (Girvak) working to drive the culture of entrepreneurship and encourage the youth to consider entrepreneurship as a career alternative since 2014.

Another important segment that we focus on is women entrepreneurs. Women's share in the workforce is only 33% in Turkey, whereas the OECD average is 63%. If Turkey can reach the OECD average by 2025, the GDP will increase by USD 250 billion. Realizing the support that women need in this area, Garanti launched its Women Entrepreneurship Program in 2006. Our efforts in empowering women entrepreneurs are categorized under 4 topics: "providing finance", "encouraging", "training" and "accessing new markets". To date, we have provided TL 5.5 billion financing to women entrepreneurs. In 2018, we launched our Gender Bond for USD 75 million in collaboration with the IFC to support women entrepreneurs. This also marks the first social bond in Emerging Markets. Our competition aimed at encouraging women entrepreneurs, Turkey's Women Entrepreneur Competition, received 37,000 applications in its 12th year. 2,000 women completed our Women Entrepreneurs Executive School, which we offer in partnership with Boğaziçi University Lifelong Learning Center.

On the other hand, digital transformation enables customer empowerment in a variety of ways. As customers now expect to be better understood by companies, they also proactively offer their insights and creative ideas to companies for better product development. They expect companies to support their ideas or ventures, sometimes even develop partnerships to grow their businesses. This interaction allows companies to build stronger bonds and greater connection with their customers.

As a financial institution we also closely monitor the developments in the FinTech sector. FinTech companies with disruptive technologies can offer great potential for the banking sector to improve their systems and offer better solutions. As a pioneer bank in digital banking, we have been interacting and building partnerships with such companies for a while. Furthermore, as part of the BBVA Group, we are a member of BBVA's Open Innovation Team, a dedicated team that looks into various opportunities through FinTech companies. This team also organizes the biggest FinTech Competition in the world. As Garanti, we have been organizing the Turkish chapter of this competition for the past 3 years, which provides FinTech startups offering direct or indirect solutions to the finance world with the opportunity to compete at the international level. This competition provides a great opportunity for these startups to advertise themselves globally.

 $^{^{9}\} http://www3.weforum.org/docs/WEF_GRR18_Report.pdf \\ ^{10}\ Global\ Shapers\ Community.\ 2017,\ Shapers\ Survey,\ http://www.shaperssurvey2017.org/$



Detailed information can be found in Customer Experience and Responsible and Sustainable Development sections.

DIGITAL TRANSFORMATION



Automation has already been a disruptive labor-market force, and its effects are likely to be long lasting as new technologies diffuse throughout the global economy. For the foreseeable future, automation and digitalization can be expected to push down on levels of employment and wages, and contribute to increases in income and wealth at the top of the distribution."11

The disruptive new technologies and advancements are changing the world as we know it and the way we do business. 75-375 million people may need to switch occupational categories by 2030, under McKinsey&Co's midpoint to rapid automation adoption scenarios.¹²

As Garanti, we believe that this is a great opportunity to allocate that workforce to more creative projects such as improving customer experience and enhancing customer behavior analysis. In 2017, we initiated an unprecedented transformation project in branches, where we developed a new service model that captures the benefits of the emerging digital world. All Garanti branches are evolving into an innovative structure built on digitalization where the customers are able to benefit from all kinds of services in a one-stop banking system in the fastest and easiest manner. The new model focuses on 3 main objectives:

• enhance customer experience,

About Garanti

- increase digital migration/reduce branch dependency,
- upgrade employees' capabilities and improve sales/ operational efficiency.

By the end of 2018, we have completed the transformation across Turkey. Our new service model turned out to be outstandingly successful.

- Increase in Sales & Efficiency: 20% increase in time deposit sales and 10% increase in GPL & Overdraft sales
- Digital, Fast and Lean Processes: Digital loan approval in 7 minutes

- $\bullet~$ Happier Customers: Average waiting time reduced to ~10 min. and maximum waiting time decreased by 20%
- More competent employees: 35% increase in sales capacity

As Al¹³ and machine learning practices enhance and expand each day, they bring brand new experiences and concepts into our lives, one being virtual assistants. Virtual assistants are now widely used by corporations to improve customer experience. It goes without saying that these dialogue-based virtual assistants will play a crucial role in the future of banking as well. At Garanti, artificial intelligence is already a part of our daily lives. Today, artificial intelligence technology is being utilized as bots, voice assistants and internal support applications in mobile banking, call center, and support services.

However, the most important reflection of our AI practices is definitely UGI, which is the first voice process assistant in Turkey, launched in 2016. It understands natural language and can establish meaningful dialogues imitating human interaction very closely. In Garanti Cep¹⁴, customers can give voice commands, which provides a hands-free transaction option. UGI can immediately respond to requests like "I would like to pay the minimum for my Bonus card", or "I would like to send 100 liras to my brother from my Etiler account." Beyond simple transactions, our customers can also use UGI to make deeper inquiries such as "Show me all the restaurant expenses in the last 3 months". UGİ has created more than 25 million interactions with more than 2 million customers since 2016. UGI continuously improves its intelligence and responsiveness through these dialogues with customers.

Garanti also utilizes big data and AI to improve its customer experience. Our Innovation Committee identified 6 main areas and developed a short- and medium-term plan. It is predicted that 25% of customer service operations will be using virtual customer assistants by 2020. To Currently, chatbots are the most popular virtual assistants. As a pioneer in Digital Banking, Garanti launched its chatbot "Bilge (The Wise)" in the beginning of 2018 in order to improve customer service quality by its employees. Knowing all the information needed to resolve customer issues in a practical way, Bilge answers more than 10,000 queries per month. Thanks to Bilge, Garanti shortened the average duration of service to customers via the customer careline over half a minute. In 2019, Garanti will

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¹¹ http://www3.weforum.org/docs/WEF_GRR18_Report.pdf 12 https://www.mckinsey.com/~/media/mckinsey/featured%20insights/future%20of%20organizations/what%20the%20 future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/mgi-jobs-lost-jobs-gained-report-december-6-2017.ashx 13 Artificial Intelligence 14 Garanti Bank's Mobile App 15 https://www.gartner.com/en/newsroom/press-releases/2018-02-19-gartner-says-25-percent-of-customer-service-operations-will-use-virtual-customer-assistants-by-2020

continue its efforts to provide this service for its customers as well.

With our location based transaction control systems we aim to prevent fraud cases in transactions that customers make from various channels, by adding location-based control filters. Through our branch intensity estimation, customers can see the current status of the branch they plan to visit beforehand in terms of expected waiting time in the line. They also have an option to make a reservation for desired time or day. In order to provide this information to customers, we use analytical models that estimate expected waiting time of a customer in a branch at a given time. Estimation models utilize customer information in branches, service metrics, branch status and other parameters. We also develop analytical models to reveal the critical moments of our customers that will enable Garanti to engage them emotionally and increase loyalty. Information from numerous sources such as credit card transactions, location info, call center recordings etc. is used to pinpoint the exact need of our customers at a certain time. Customized offers and communication will eventually increase the quality of the relationship between Garanti and the customer. Within the scope of our risk-based audit model, we also aim to produce high quality outputs that contribute to the Bank's processes by creating a data specialist position.

All these solutions are also developed in line with our Do It Yourself (DIY) approach, which is one of the building blocks of our transformation. We aim to empower and enable our customers to be able to handle as many transactions as possible on their own. This will not only help them save time, but also will allow us to do our business in a much better and more efficient way. Today, on the retail banking side, 97% of our products offered at our branches is also available on digital channels for our retail customers. Our goal is to increase DIY availability for our corporate and commercial customers as well. We strive to provide a better experience at all touch points in both digital and face-to-face interactions, finding the best combination of the power of technology and human touch.

On the other hand, in an increasingly connected and digitalized world, it is of great importance to address cybercrime threats. Clearly, cybersecurity is one of the main concerns of Garanti. In 2018, Garanti continued to improve its outstanding information

and cyber security systems as explained in detail in the Digital Transformation section. Security responsibility is shared among employees by continuous trainings and awareness campaigns. Technology is the driver of security as much as human is, and Garanti invests in technology to ensure that vital security baselines are provided. Cybersecurity is not only the tools but also the process to support security requirements within the organization through dedicated teams via monitoring and response, compliance, risk assessment, security testing, business continuity and operation services. In order to improve the cybersecurity efforts of Turkey, Garanti collaborates in several initiatives such as Sectoral Cyber Incident Response Team managed by the Banking Regulation and Supervision Agency (BRSA), Turkey Informatics Industry Association (TUBISAD), and Cyber Emergency Response Team for the Turkish Financial Sector.

Another rising issue is the significant increase in phishing scams through fake advertisements in social media. Garanti develops strategies and several partnerships with social media companies to eliminate these attempts at the source. Being aware of the fact that our customers are key to tackling this issue, we share informative messages via various channels with them to raise their awareness and build capacity. In 2018, fake websites generating these scams increased by 281% compared to the previous year. Shutting down times also significantly decreased due to immediate action taking and collaboration.



Further details can be found in the Digital Transformation Section.

FINANCIAL HEALTH & INCLUSION



As unique customer experience is our strategic priority, we attach great importance to our customers' financial health. Using the insights obtained from the behavioral economics analysis, we support our customers in being aware of their financial positions, being on top of their financials, having a balanced budget, spending consciously for their needs, saving and investing for their dreams and for the future. Investing in customers' financial health brings out amazing opportunities in terms of building long-term relationships and creating strong emotional bonds. Based on our "Transparent, Clear

¹⁶ Garanti Bankası'nın Mobil Uygulaması ¹⁷ https://www.gartner.com/en/newsroom/press-releases/2018-02-19-gartner-says-25-percent-of-customer-service-operations-will-use-virtual-customer-assistants-by-2020

and Responsible" banking approach, we inform and train our customers on how to protect their financial health. Today we offer 18 products and solutions to our customers, and in 2019, we will be developing many more through a better-structured approach. In 2018, our Digital Banking teams embarked on a project that will be implemented in Garanti's Mobile Banking App and show customers their status on savings and expenses through big data analysis. Customers will get information about their financial status around savings-expenses, they will be offered insights and special action plans to improve their financial health. Finally, a percentage for the whole progress will be shown to customers. The Digital Banking teams work with Business Intelligence teams in order to cluster our customers by considering their spending/earning behavior by focusing on big data analysis.

With our open-market concept, we aim to make our financial solutions accessible to all customers wherever they may be. Until very recently, call centers and ATMs used to be the only alternatives to the branches. Then we rapidly expanded our services on digital channels and adopted a multi-channel strategy. Soon after, our strategy was transformed into an omnichannel one where we began offering seamless experience across all channels. We have made improvements to enable even non-Garanti customers to reach our products and services from all channels. For example, we offer cardless transaction option through our ATMs where everyone, even non-Garanti customers, can transfer, deposit or withdraw money; they can even pay their bills with this function. In 2018, 33.6 million cardless transactions occurred in TL, and 141 thousand cardless transactions occurred in foreign currency. Moving forward, we have already commenced our e-commerce initiatives to reach our customers and non-Garanti customers via non-Garanti channels.

THE FUTURE OF WORK



We have been witnessing significant changes in the business world for the last couple of years. Be it the millennials or the disruptive technological advancements, this is only a telling sign of a much more serious paradigm shift in the way we do business and the workplace. It is no surprise that ILO¹⁸ established the Global Commission on the Future of Work. The

Commission is set out to undertake an in-depth examination of the future of work that can provide the analytical basis for the delivery of social justice in the 21st century.

"The world of work is experiencing a major process of change, with important transformations ranging from the development of technologies and the impact of climate change to the changing character of production and employment." We all need to adapt to it by revising our vision, procedures, core values and sometimes even by redefining our core strategies.

Technological development increases both customers' expectations & needs, and the companies' capacity to meet them. The advancements enable us to offer more customized solutions and advice to our customers. If companies miss the window to quickly adapt to this dynamic environment, they will inevitably be outgrown by smaller and more agile players in the field. Garanti keeps a close eye on all technological mega trends and takes its place among the pioneers of innovative solution providers. As a necessity of our sector, we have been investing in automation for a long time. Thus we minimize the error factor and provide faster service. We believe our dynamic, adaptive and efficient business model is the enabler of our transformation journey.

In 2018, we initiated a data governance and data transformation project in order to take our big data analysis and value creation abilities to the next level. The Data Governance project aims to establish a governance model where data is seen as an asset. Within this project, we assigned responsible personnel for data, developed an extensive data inventory, and established quality assurance and management systems to enhance data quality. The new data governance structure will enable us to effectively manage data security, privacy, and accessibility in compliance with all relevant regulations. We have also identified and implemented necessary trainings, tools, and infrastructure needs to increase each team's capacity for data processing. This allowed us to better support all decision-making processes at Garanti through data analytics.

On another note, this transformation also bears some other risks for companies. For instance, it is hard to reach and attract talent constituting a small group in specific universities and

¹⁸ International Labour Organization 19 https://www.ilo.org/global/topics/future-of-work/WCMS_578759/lang--en/index.htm

disciplines. The most significant reason is competition, which is not only among the banks within the banking sector, but also among other various sectors. Competition among new trending areas related to data, artificial intelligence, digital marketing, robotics, etc. diminished the attractiveness of the banking sector. New generation talents tend to have short tenure, which leads to low engagement scores. Every company must find new ways to strengthen employee engagement. While managing the expectations of the new generation, our aim is to provide different career paths to our employees to increase talent retention. Following new trends, we are integrating Al & Machine learning algorithms to prevent unconscious bias, decreasing the time spent to fill vacancies, measure flight risk of candidates and predict performance level before hiring. We've changed our talent acquisition strategy by focusing on campus activities, and we segmented talent attraction events for new graduates (data, finance, risk, digital banking, marketing) using various channels (social media, campus events etc.) in order to reach targeted talents for each different department of the Bank. Following the adoption of the new internal mobility policy, all employees at the Bank have the opportunity to manage their own careers in a transparent manner. We integrated digital tools in the candidate selection process, and also we're using analytical methods for performance & turnover prediction in talent groups.

21ST CENTURY SKILLS GAP

these new technological advancements, global developments, and future challenges require a brand new and much broader skill set. However, education is still one of the greatest challenges worldwide. The 2018 World Development Report finds that "The quality and quantity of education vary widely within and across countries. In the poorest countries, fewer than 1 in 5 primary school kids are proficient in math and reading." Hundreds of millions of children around the world are growing up without even the most basic life skills, let alone the skills required to survive in the 21st century. This also creates a challenge for the business world as it means the talent pool will be unable to serve the changing needs of companies. To tackle this issue, Garanti has many initiatives such as the Teachers Academy Foundation, Code the Future with Garanti, and Math & Science - Learning with Fun. Through the Teachers

Academy Foundation, Garanti reached and broadened the minds of more than 165 thousand teachers across Turkey. Code the Future with Garanti, introduced 700 children aged 8-13 to coding, robotics and design-oriented thinking in 15 cities.

Garanti also supports its employees in this regard through various training and mentoring programs in order for them to be fully equipped for today's and tomorrow's challenges. With the revamped service model introduced in branches, we had the opportunity to refresh the existing knowledge of our employees and train them in their cross skills. Branch transformations had to be done in a very short period of time, and time constraints would not allow implementation of in-class format for training and refreshment programs for such a huge number of people - approximately 4,000. In order to adapt and train so many branch employees to the new service model in a very short time, it was essential to design a new training program. Therefore, a new program was designed for cross-skill development using a blended approach, which predominantly covered digital learning solutions. Digital reinforcement quiz applications were used actively and 2.5 million questions were solved in 9 months.



More examples can be found in Responsible and Sustainable Development and Investing in Human Capital sections.