



MENA Fintech Report 2022

GOOINN Sector Reports

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Index

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|----|--|
| 02 | Chapter 1: Overview Fintech Concept Fintech in Middle East and North Africa (MENA) Leading Technologies in Fintech Trends and Examples from MENA 2022 Expectations in the Fintech Sector What is Web 3.0? What is it Located in the Field of Finance? Overall Conclusion |
| 37 | Chapter 2: Survey Application Survey Methodology Findings Survey Results |
| 56 | Chapter 3: Case Studies from GOOINN |
| 62 | Lists List of Abbreviations List of Charts List of Sources |
| 75 | About GOOINN |

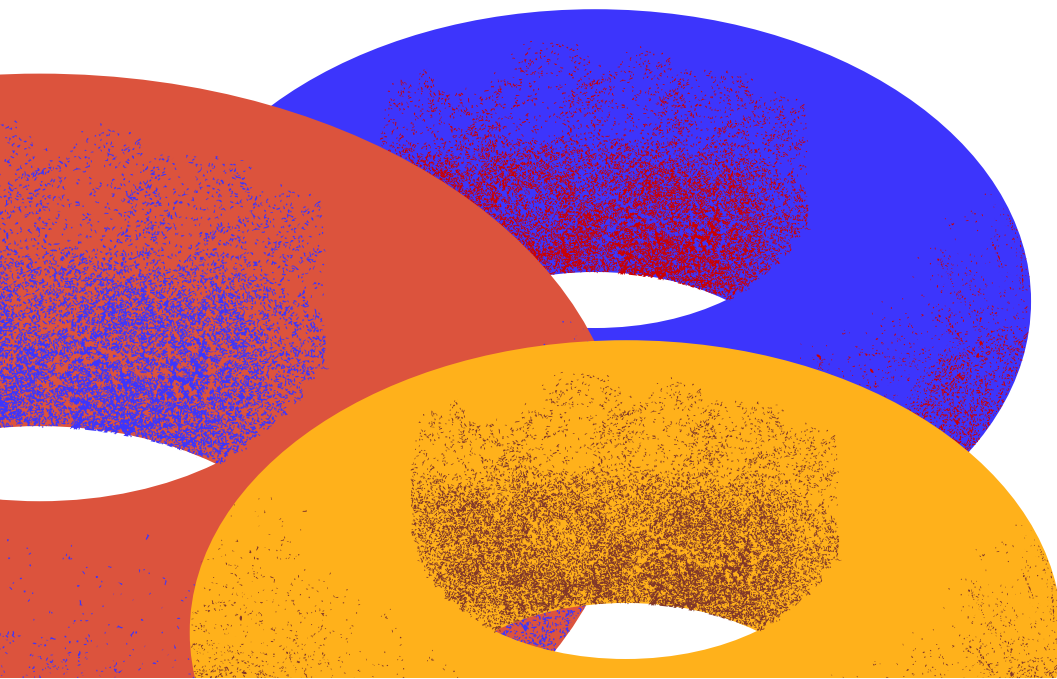


CHAPTER 1 OVERVIEW

Fintech Concept

The concept of Fintech is known as "Financial Technology" and includes technological new product and service fields. The Fintech sector, which has established a new financial industry, allows traditional financial transactions to be transformed into new financial services that are much more advanced thanks to technology. While the main purpose of the sector is to provide the financial products or services produced to consumers faster, better and at lower costs, the basic philosophy is to facilitate the lives of consumers and spread finance to the base.

The Fintech sector, which provides financial transactions in a digital environment, provides services beyond traditional banking transactions by offering fast and efficient methods.[1] Fintech companies in this field create deep-rooted impacts. Examples of these impacts include branchless banking, biometric sensors, and e-wallets. Branchless banking has eliminated the need for physical spaces. In this way, banks save a lot of time and transaction costs and increase their availability from online environments. On the other hand, Fintechs that provide services with biometric sensors close security vulnerabilities that lead to consumer victimization. The use of these sensors is seen in ATMs. Consumers can perform their financial transactions at ATMs without the need for a PIN or password. E-wallets, on the other hand, bring finance closer to the goal of recovering it from the bank's monopoly with the services it offers. Thanks to these wallets, users can perform various financial transactions, from international money transfers to paying bills. [2]



Fintechs provide their users with different advantages with a new product or services; [3]

1.Saving: Fintechs save time and money with their applications and increase work efficiency thanks to their fast and automated procedures.

2.Flexibility: Fintechs facilitate financial transactions by developing more agile workflows, regardless of where and when users need them.

3.Transparency: Fintechs help their users to manage their transactions and workflows transparently and quickly thanks to the technology they offer.

4.Productivity: Fintechs provides process automation by increasing the productivity of its users with its special applications in addition to its quality services.

5.Analysis: Fintechs improve the analysis of processes with more detailed information and data thanks to their technologies.

6.Accessibility: Fintechs are more accessible with their financial services. Users can access fintech services at any time and place, regardless of their location.

7.Price Advantage: Fintechs do not need branches or similar physical structures. Therefore, these institutions provide a price advantage over traditional financial services. In addition, the solutions it offers are cheaper than traditional services.

8.Personalized Products: Fintechs are able to use this information effectively by collecting more information about their users thanks to the technological capabilities they have. Thus, it can offer more personalized products to its users. It increases loyalty and satisfaction by improving the user experience.

Currently, Fintechs continue their activities with various solutions. The most common solutions are as follows;[4],[5]

- Mobile pay technology
- Customer support via chatbots
- Contactless pay system
- Biometric verification solutions with eye recognition, face recognition and fingerprint
- Artificial intelligence-supported portfolio management
- Crypto currency formations and digital cash
- Blockchain technologies
- Smart contracts that use computer programs to automatically execute contracts between buyers and sellers
- Insurance technologies (Insurtech)
- Open banking applications
- Regulation technologies (Regtech)

Fintech in Middle East and North Africa (MENA)

Fintech services have been adopted around the world, and currently 3.8 billion people use digital pay services. This number is expected to increase to about 5 billion by 2025. A sector that has been adopted this much also has an important place in MENA. Many new start-ups in the region operate in the fintech sector. Especially, digital payments are the most preferred service used by banking customers. On the other hand, the adoption rate of Fintechs is higher among young banking customers. This is because the use of smartphones has been steadily increasing over the past few years.[6] In addition, the Middle East, which had 30 Fintech companies in 2017, is expected to host 465 financial technology companies in 2022.[7]

In MENA, the Fintech sector is developing rapidly with a compound annual growth rate of 30%. One of the most important factors of this development is that about half of the 400 million people in the region are under the age of 25. At this point, it is anticipated that the pressure for digital priority solutions will increase in financial transaction fields such as payments, banking, and lending[8]

Another important concept in the MENA region is Islamic Fintech. This concept defines the realization of financial products, services, and investments in accordance with the religion of Islam on the basis of innovation and technology. Islamic fintechs take an ethical approach without deception. It offers a product portfolio without hidden costs. Finance solutions do not include the interest component and religiously prohibited products.[9] Within the Organization of Islamic Cooperation (OIC) countries, this market size is expected to reach 128 billion dollars by 2025 with a growth rate of 21%. Especially Saudi Arabia, Iran, United Arab Emirates, Malaysia, and Indonesia are the countries with the highest Islamic Fintech transaction volumes among the countries within this union.[10]

Although mobile connections are above the MENA regional average in [Algeria](#), digital financial services usage is in a low position. Only 16% of adults and only 11% of women use digital pay.[11] Despite this, the expectations regarding the fintech market in the country are as follows:[12]

- The largest segment of the market is digital payments and will have a total transaction value of 4,181.00 million dollars in 2022. The number of users in the same segment is expected to reach 16.79 million users by 2026.
- It is estimated that the average transaction value per user in the alternative financing segment will be 10.64 thousand dollars in 2022.
- The digital investment segment is expected to grow by 34% in 2023.

Fintech firms in [Bahrain](#) have doubled in the last four years. Currently, there have more than 1 billion major players in the industry. The expansion of the sector in the country is due to the limitations of traditional financial services and the increase in technological resources in response to this.[13] The Central Bank of Bahrain (CBB) is constantly reforming policies to improve the operation, financing, quality, and competitiveness of financial sector services. Launched by CBB, FinHub 973 serves as the region's first cross-border digital innovation platform, created under the auspices of the central bank to enhance collaboration between financial institutions and fintechs.[14] The sector expectations related to the country are as follows:[15]

- The largest segment of the market will be neobanking in 2022 with 1896 million dollars. This segment is expected to show 50.2% revenue growth in 2023.
- In 2022, it is estimated that the average transaction value per user in the alternative financing segment will be 36.20 thousand dollars during the year.
- In the digital payments segment, the number of users is expected to reach 1.20 million by 2026.

Egypt is considered the third largest country in Africa in terms of population within the MENA region. According to 2021 data, the country is among the top 4 active African countries in the Fintech sector. There has been extensive growth in the fintech industry in the country over the last 7 years and is home to 112 fintech and fintech-enabled startups. Fintech companies operating on payments & remittance constitute the largest part of the market segment with a rate of 30%. Fintech firms operating in the alternative finance & lending segment constitute the second largest segment and have a market segment of 15%. Only 18 founders of fintech startups in the country are women.[16]

One of the most important reasons for the rapid development of the fintech sector in Egypt is the regulatory changes in the country in the last 2 years. This situation, which led to an increase in investments in the sector, also led to a change in the way of doing business of citizens who do not have a bank account. On the other hand, to accelerate innovation in this sector, Egypt's three largest state banks announced that they established an 85 million dollars financial technology fund.[17]

Iran's central bank has been working on the 2025 roadmap, which aims to develop a strong future for the banking system, especially since 2017. It is stated that an appropriate role will be defined in the roadmap for fintech companies in the Iranian banking system, including a separate regulatory agency to support innovative services. [18] Along with this, a turning point was experienced in 2018 and Shaparak Company, which is the payment network operating arm of the country's central bank, signed agreements with 6 fintech companies that work within the new legal framework of the central bank. There are approximately 137 fintech startups operating today and the industry is developing rapidly.[19] The future expectations for the sector are as follows; [20]

- The largest segment of the market will be digital payments with a transaction value of 22,225 million dollars in 2022, and users in this field are expected to reach 58.45 million in 2026.
- It is estimated that the transaction value per user in the neobanking segment will be 14.99 thousand dollars in 2022. In this segment, it is predicted that there will be a 42.7% revenue increase in 2023.

Fintech field in [Iraq](#) is a new and emerging market. The country has not enacted a specific law to govern the field. However, there are legal doctrines that can be applied to certain regulated activities conducted by fintech organizations. One of them is "Electronic Payment Services System Regulation (3/2014)". Accordingly, electronic payment service providers are required to obtain a license from the Central Bank of Iraq (CBI). Digital payments and e-banking are trying to develop in the country, but they have not reached a sufficient level.[21]

In [Israel](#), the Tel Aviv Stock Exchange has a thriving fintech market. The high demand for digital financial services strongly encourages investors to invest in Israeli fintech companies. Especially in 2020 and 2021, there has been an increase in investments made in this field. 2021 saw a boom in financing, with investments in fintech startups and companies reaching \$4.5 billion during the year.[22] Most of the industry's activities focus on digital payments, fraud prevention and security fields.[23] The expectations regarding the Israeli fintech sector are as follows;[24]

- The largest segment of the fintech market is expected to be digital payments in 2022, with a total transaction value of \$20.00 billion. The number of users in this segment is expected to reach 5.59 million by 2026.
- It is estimated that the average transaction value per user in the alternative financing segment will be 191.40 thousand dollars in 2022.
- Neobanking segment is expected to show 48.7% revenue growth in 2023.

[Jordan](#) has many fintech and blockchain companies emerging from accelerator programs and this space is seen as a good investment opportunity. The country's central bank is aware of the necessity of keeping up with the rapid developments in financial technology to serve the banking and financial sector in a way that provides security, resilience and stability. With this awareness, the bank also has a fintech sandbox and a fintech specialized committee working with all banks.[25] In addition, due to the high risks associated with Cryptocurrencies, the country's central bank is emphasizing its policy of banning cryptocurrencies in the financial system.[26]

[Kuwait](#) aims to be an important player in the field of fintech. This field has become the biggest driving force of the rapid change in the banking sector of the country. Peer to peer money transfer is among the most preferred services for individuals aged 20-40 in the country, and the use of this service is concentrated in the lowest income group. However, despite low adoption rates, 83% of people in the country are willing to adopt fintech solutions.[27] The country's central bank is especially warning against cryptocurrencies. Stating that cryptocurrencies are not regulated or supervised by any authority in Kuwait, the central bank states that there may be large losses due to speculators and the increased risk of fraud.[28]

Despite the increase in fintech companies competing on a global scale in [Lebanon](#), the sector still has a bank-centered structure as consumers prefer traditional institutions. There is limited awareness of the importance of fintech in the market.[29] Operating fintechs are not subject to certain legal and regulatory provisions. It is subject to legal provisions that apply to traditional activities. However, certain regulated activities run by fintech companies, such as crowdfunding, electronic payment and banking services, require different regulations to be followed.[30]

The fintech sector in [Libya](#) has a potential for development. The sector has 8 main players in the country, including fintech startups, technology developers, universities, technology companies, government, insurance companies, corporate banks, and the central bank. Many banks and companies, with the awareness of the fintech sector, give priority to the work to be done in this field.[31] The Libyan Financial Technology Laboratory, for example, has signed an agreement with the country's state-run El Madar mobile phone company. With this agreement, it will operate within the framework of cooperation in the strategy of pushing the national economy towards digital transformation.[32]

Morocco is considered the third largest fintech hub in the Arab world. There are more than 40 active fintech solutions and the most advanced segments include payment, remittance and POS systems.[33] There are several government initiatives in the country to help consumers access digital financial services[34] and the expectations for the sector are as follows:[35]

- The largest segment of the market is expected to be digital payments in 2022, with a total transaction value of \$4,939.00 billion. The number of users in this segment is expected to reach 19.16 million by 2026.
- It is estimated that the average transaction value per user in the alternative financing segment will be 4.72 thousand dollars in 2022.
- Neobanking segment is expected to show a revenue increase of 54.3% in 2023.

Oman is a state that has given importance to digitalization and innovation for many years. It is constantly adopting new platforms to speed up and streamline all public services. The number of Omanis starting their own technology ventures is increasing day by day. Along with this, great importance is given to the fintech sector.[36] In order to have a dynamic digital financial ecosystem that promotes financial development, the Central Bank of Oman (CBO) gives priority to the development of Fintech in the financial sector with its regulations.[37] For this reason, in 2020, it launched the financial regulatory sandbox for participants to live-test fintech solutions under the supervision of the central bank. In the same year, Bank Muscat launched a 100-million-dollar fintech investment vehicle to establish a network of fintech ecosystems by investing in local and international fintechs through the fund.[38] In 2021, Oman and Saudi Arabia signed two agreements. One is a memorandum of understanding in the field of the digital economy, while the other is a cooperation agreement to jointly launch a digital skills and education initiative. With the signatures, both sides have agreed on the development of systems in cooperation in the digital economy, e-government, cyber security, and digital innovation.[39]

Qatar has a mature financial services sector that includes many commercial, traditional, Islamic banks, foreign bank branches and a specialized development bank that finances SME. The country, which attaches importance to digitalization, encourages Fintech investments. It creates a solid enabling environment especially for mobile payment system and payment-oriented fintechs. Qatar Development Bank (QDB) has established the Qatar Fintech Hub (QFTH) to support the growth of the Fintech industry in Qatar. Offering Inkubator and Accelerator programs, QFTH focuses on payments and emerging technologies by addressing financial institutions' challenges. Fintechs selected for the programs create solutions on various technologies such as artificial intelligence, machine learning, blockchain, robotic process automation (RPA), near field communication (NFC) and optical character recognition (OCR).[40]

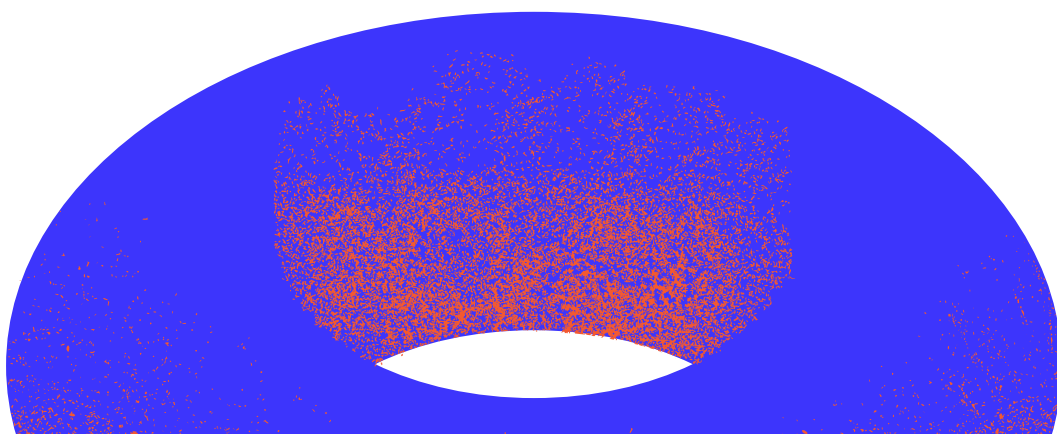
Saudi Arabia is one of the countries that gives importance to the fintech sector. The Saudi Arabian Central Bank established Fintech Saudi in 2018 in partnership with the country's Capital Market Authority to develop activities in this field. This structure acts as a catalyst for the growth of the fintech industry and supports the development of startups at every stage by building the necessary infrastructure and building the needed talents.[41]

On the other hand, Saudi Arabia is one of the top performing countries in the Islamic Fintech market. This market is currently valued at an estimated \$17.8 billion and is expected to reach \$47.5 billion in four years.[42]

However, the regulatory environment in the country, increasing competition in the financial sector and investor interest have increased the interest in open banking. For this reason, SAMA has created the open banking framework for the development, implementation, and implementation of open banking in the country. While this framework is included in the strategic scope of Vision 2030, it also includes the Financial Sector Development Program, which aims to increase support in the field of fintech, move towards a cashless society and launch an instant payment system. It also aims to make 70% of transactions made cashless by 2030.[43]

Tunisia attaches importance to the fintech sector, and the Tunisia Central Bank (TCB) believes that financial technologies will improve user experiences and applications in this field will develop thanks to agile organizations. There are many people in the country who do not have a bank account. This situation is seen as an opportunity for the development of fintechs. The country aims to be a pioneer in this field by integrating blockchain technology with the central bank.[44] The future expectations regarding the sector are as follows:[45]

- The largest segment of the Tunisian fintech market is expected to be digital payments in 2022, with a total transaction value of \$2,970,00 million. The number of users in this segment is expected to reach 6.11 million by 2026.
- It is estimated that the average transaction value per user in the alternative lending segment will be 19.98 thousand dollars in 2022.
- The Digital Investment segment, on the other hand, is expected to show a revenue increase of 39.9% in 2023.



[United Arab Emirates \(UAE\)](#) is seen as the largest player in the fintech sector in the MENA region. The country is home to about half of the fintech companies in the region. The two leading financial free zones of the United Arab Emirates (UAE), "Abu Dhabi Global Market" and "Dubai International Financial Center" are among the most important examples of the UAE's success in financial services.[46] Having 400 fintech startups according to 2020 data, UAE plays a major role in the field of Islamic finance and is among the top five countries with Islamic fintechs. The digital transformation of the financial services sector is also being supported by the adoption of modern technologies such as big data and artificial intelligence by the UAE central bank.[47] Payment companies dominate the fintech industry in the UAE. There are few fintech companies operating in open banking. However, these fields are expected to develop in the coming periods.[48]

In recent years, policy makers and regulators in [Palestine](#) have begun to pay more attention to the fintech sector and to consider its socio-economic impact. In April 2020, the Palestine Monetary Authority (PMA) allowed mobile payment services and the use of digital wallets. In January 2021, the "National Fintech Taskforce" was created, which aims to organize collective efforts to explore the potential of the fintech sector and promote this space in Palestine. SMEs in the country continue to face barriers to accessing traditional financing opportunities through banks and credit institutions. Alternative tech-enabled financing options such as crowdfunding and peer to peer lending are thought to play an important role in filling the financing gap.[49]

[Yemen](#) has a cash-based economy. The country's official banking sector is underdeveloped and the official payment market includes three types of financial service providers. The first of these providers are commercial and Islamic banks. The second is microfinance banks and microcredit institutions. The third is money exchange companies.[50] In 2014, the Central Bank of Yemen (CBY) published new mobile banking regulations. This arrangement creates an opportunity for banks and mobile network operators to work together to expand banking services and deeper financial access much faster and more securely.[51]

Leading Technologies in the Fintech Field

Technologies used in the Fintech field are as follows;[52]

Artificial Intelligence and Machine Learning: Fintech companies benefit from artificial intelligence and machine learning technologies, especially in credit scoring, fraud detection, regulatory compliance and asset management applications.

Big Data and Data Analytics: Data received from customers and the market is important for Fintech companies. By means of analytical methods and algorithms, companies can analyze data. Thus, they can reveal the preferences, spending habits and investment behaviors of their customers.

Robotic Process Automation (RPA): RPA represents the repetitive task process assigned to robots to streamline workflows in financial institutions. Applications include transaction management, statistics and data collection, compliance management, communications and marketing via emails and chatbots.

Blockchain Technology: Blockchain technology is being widely adopted due to its ability to securely store transaction records and sensitive data. This technology minimizes the success of cyber attacks by encrypting every transaction.

Cloud Computing: While cloud computing technology saves financial companies from establishing information technology infrastructure and data centers, it also provides low-cost access to flexible storage and computing services. It also allows the creation of new applications such as open banking and banking as a service.[53]

Internet of Things (IoT): IoT technology increases the speed of financial processes. By means of this technology, smartphones can be connected to financial databases and data can be transferred from one device to another. IoT technology is also seen in contactless payment methods.[54]

Open API: Allowing software programs and applications of different companies to interact with each other, Open APIs provides online banking and an enhanced customer experience. In addition, by opening their APIs, financial institutions can expand their services by allowing other companies to seamlessly access certain business data and functions on their digital payment systems.[55]

Virtual Reality - Augmented Reality Technologies (VR/AR): The application of virtual reality and augmented reality technologies in the fintech industry is revolutionizing. By means of these technologies, businesses can open virtual branches. Especially virtual reality applications stand out. For example, a VR trading application from Swissquote provides information about stocks using eye tracking technology.[56]

Chatbots: For fintechs, chatbots are useful for increasing trust and serving customers more effectively. While these robots perform informative and operational activities for users, they also provide counseling as they act as assistants.[57]

Trends and Examples from MENA

The prominent trends and samples in the industry are as follows;[58]

Alternative Credit Scoring

Many companies and individuals fail at traditional bank loan screenings due to strict and outdated credit scoring criteria. Credit rating Fintech companies take a new approach by considering alternative data points such as social signals and percentage scoring among similar groups. With a smart and self-learning algorithm, qualitative factors are taken into consideration and better lending decisions can be made accordingly.

Examples

Dubai-based [Finllect](#) serves the next generation of consumers with its launch application to create loans, automate their finances and prequalify for financial services. Instead of analyzing income or credit history, the application enables the next generation of consumers to create loans using their ability to meet recurring micropayments and budgets.[59] The company offers a new scoring alternative to traditional credit scoring that considers millions of overlooked data points to qualify as credit for the MENA region.[60]

[Qarar](#), which provides financial services with solutions such as consultancy, decision analytics, software technology, customer management and process automation,[61] announced that it will offer alternative credit risk score solutions in the Middle East by forming a partnership with Singapore-based [Credolab](#). [62]

Tips and Tricks

Telecommunications companies (telcos) and infrastructure bill payments are the most common alternative data sources. In addition, it includes travel payments, e-commerce behaviors, government transactions and assets. A comprehensive assessment of the credit risk profile can be provided by analyzing an individual's preferences and habits. With this trend, the situation of obtaining a financial assessment only from financial sources has disappeared. With this perspective, no matter what sector you are in, your customers' behavioral tendencies can become a purchasable value for financial evaluation institutions.

Alternative Insurance

By means of the alternative insurance model and new algorithms, premium calculations are made using alternative data points such as social characteristics, lifestyle and medical history. Thus, it is determined whether insurance will be given or not. On the other hand, insurance offers can become attractive with service packages in different areas. In addition, alternative payment options can be offered by providing different terms and conditions.

Tips and Tricks

It is no longer surprising to see how even traditional fields such as insurance have evolved with technology. Although, we are in a time where even large insurance companies that are not innovative are imitating initiatives by seeing the danger. Insurers use insurance companies to alleviate their suffering, so insurance is perhaps the industry with the greatest potential for developing solutions to customer problems. Even though you operate in an industry that carries traces of the past in its DNA, you can lick a customer segment's wounds that you have never dealt with before by analyzing customer needs and expectations correctly.

Transaction Delivery

Fintech startups in the field of transaction delivery reveal their potential of paying premiums, investing, buying mutual funds, etc. by collect customer data and provides services with free products such as expense management applications.

Tips and Tricks

Every development in the field of financial technologies is developing in a way that will respond to the increasing needs of the market. The period in which repetitive and routine work is done by people disappears regardless of the size of the companies. Therefore, you can identify repetitive and formulatable works of your company and automate them with machine learning.

Peer to Peer Lending

In this business model, a business means exchanging debts from one or more people. In this model, investors get better returns from debt markets by lending their money to previously approved and audited borrowers. Fintech companies in this field create platforms to match lenders with borrowers and charge a fee from the borrower's payment.

Examples

Lendo is a fintech company based in Saudi Arabia, offering a peer-to-peer lending platform with a particular focus on SME debt financing.[63] The company offers its customers the opportunity to obtain crowdfunding by connecting with investors seeking short-term investment opportunities. In addition, it provides short-term invoicing services in return for the invoices issued by its customers.[64]

Raqamyah is served by a peer-to-peer financing platform regulated by the Saudi Arabian Monetary Authority (SAMA). Operating as a fintech company, Raqamyah directly connects small businesses seeking fast and cost-effective financing with financiers to help finance their growth.[65] Authorized by the Central Bank of Saudi Arabia in a pilot environment, this digital platform uses modern technology.[66]

Tips and Tricks

Financial accessibility is one of the most important issues of the next 10 years. Each of the micro-needs that large financial institutions cannot respond to quickly provides an opportunity for new business areas and initiatives to arise. Today, micro-investors are important in various areas, from funding startups to scaling companies. What matters is the calculability of the monetary value in return for microfinance. This monetary value may be a credit risk, venture stock, or other investment instrument.

Small Ticket Loans

Banks and other lenders are usually not willing to make small loans because of the low margins and high costs associated with repaying the debt. Fintech companies in this field quickly create instant loan purchase mechanisms without entering any identity verification form or credit card information. The aforementioned loans are generally insured with 0% interest and everything can be purchased directly by the customer with the option of installments.

Examples

Jordan-based [liwwa](#) serves as an intermediary that allows investors to lend directly to small businesses.[67] Making a detailed assessment of small businesses applying for loans, liwwa maintains loans approved by investors to finance loans.[68]

Egypt-based [MoneyFellows](#) serves as a group lending and savings platform. The company provides individuals with access to interest-free loans and better savings, fully supported by their own social networks.[69]

Tips and Tricks

Depending on the regulations of the countries, it is not always possible to purchase technological products in installments. The fact that micro needs have more favorable payment terms as a result of the independence of changing needs from income status brings new opportunities for consumers in terms of individual finance management. In this way, this kind of payment methods, which comes with the opportunity to save a certain percentage of their income, can meet the needs of different sizes, from a mobile phone to a car. It is worth noting that how people position their resources other than payment and to support that management is what makes a difference.

Payment Gateways

Payment systems are platforms that allow customers to pay for their product or service on the seller's website. Today, there are numerous payment methods such as debit cards and credit cards, and banks charge high fees to process transactions from these methods. Fintech companies offer suitable applications in this area, that online merchants can easily afford and integrate these payment methods into their websites.

Examples

Saudi Arabian-based PayTabs is a fintech company that provides customized payment solutions. Partnering with Visa for mobile payment solutions, Paytabs has a financing of 25.3 million dollars.[70] Thanks to its robust and reliable payment platform, it allows businesses to accept money without any hidden fees. Its service has a two-layer fraud protection system. In this way, it ensures that every transaction of its users is extremely secure and hassle-free.[71]

Tap is an online payment system that allows its users to accept payments using global debit and credit cards.[72] Payment permits, which take days and weeks to set up, only take a few minutes thanks to this payment system. Based in Kuwait, Tap supports more than 1000 businesses and major companies.[73]

Dubai-based Telr is an award-winning fintech company providing payment systems solutions. Thanks to its feature-rich payment system, it provides a secure platform for accepting online payments. Integrating e-commerce sites with the most popular networks such as Visa, MasterCard, American Express, Telr provides protection against fraud and makes payment with QR code.[74]

Tips and Tricks

Based upon three leading samples of financial solutions that develop new generation payment systems, users have preferred payment methods that are transparent, trackable by themselves and provide convenience. Each sample has millions of users and this is just the beginning. If you are looking for innovations that reveal these samples, instead of putting your brand or solution at the center to attract users, you should develop solutions by putting users in the center and connecting their minor and major problems with each other. Having a time-limited card may seem pointless at first glance, but it represents a unique solution for users who want to feel secure while shopping online. Therefore, when developing financial solutions, remember that the way to cross borders is to eliminate the obstacles that individuals experience while making payments.

Digital Wallets

Digital wallets are the intermediary between a standard bank account and a payment system. Users can make both online and offline transactions by loading a certain amount of money into the digital wallet. Being one of the most popular digital wallet service providing companies, Google allows its users to store cash on their phones with [Google Pay](#),^[75] a combination of Google Wallet and Android Pay. Users can use this money for transactions that accept Google payments both in-store and online. Apart from that, users can load any gift card into their virtual wallet.^[76]

Examples

[Etisalat](#) digital wallet is very popular in Dubai. With this wallet, which offers convenience and secure transactions, customers can pay their transportation fees, electronic bills, and shop. Etisalat wallet, which does not need a bank account, is available in iOS and Android app stores.^[77]

Abu Dhabi-based [Emirates Digital Wallet](#) is a digital cash platform that offers online payments and digital wallet services. Taking the lead across the country to reduce the use of cash in the UAE, this platform supports the UAE government's digital transformation efforts.^[78] This digital wallet works through a clip that offers digital money for purchase, remittance, and spending.^[79]

With the aim of accelerating the MENA region towards digital payments and promoting financial inclusion and literacy among economically diverse communities, [Mamo Pay](#) provides a fast and reliable platform to simplify daily personal and business payments.^[80] Users who connect their bank account to their Mamo Pay wallet can transfer money from their Mamo Pay wallet to their bank account whenever they want.^[81]

[CASHU](#) provides a reliable payment method designed and customized to suit, serve and support online shoppers. With the "CASHU digital wallet", which is the main product of CASHU, which has approximately 2.3 million users, users can make their payments whenever they want.^[82]

Tips and Tricks

Digital wallets have been at the center of financial business models for many years. In addition to the facilitating effect of digital wallets, it also supports the needs of the new era with contactlessness. However, the point where we need to be inspired by this technology is in a completely different place, since each wallet is unique and belongs to a person now, it allows you to easily be included in different platforms. It is always helpful to keep in mind the approach of using this solution as an entry key to non-financial platforms, where managing our data matches financial behavior.

Asset Management

Fintech companies operating in this field allow investors to trade for free in exchange for their data. Investors can buy stocks or mutual funds without paying any commission fees. In addition, investors save on transaction fees even though they pay a slightly higher price on purchases.

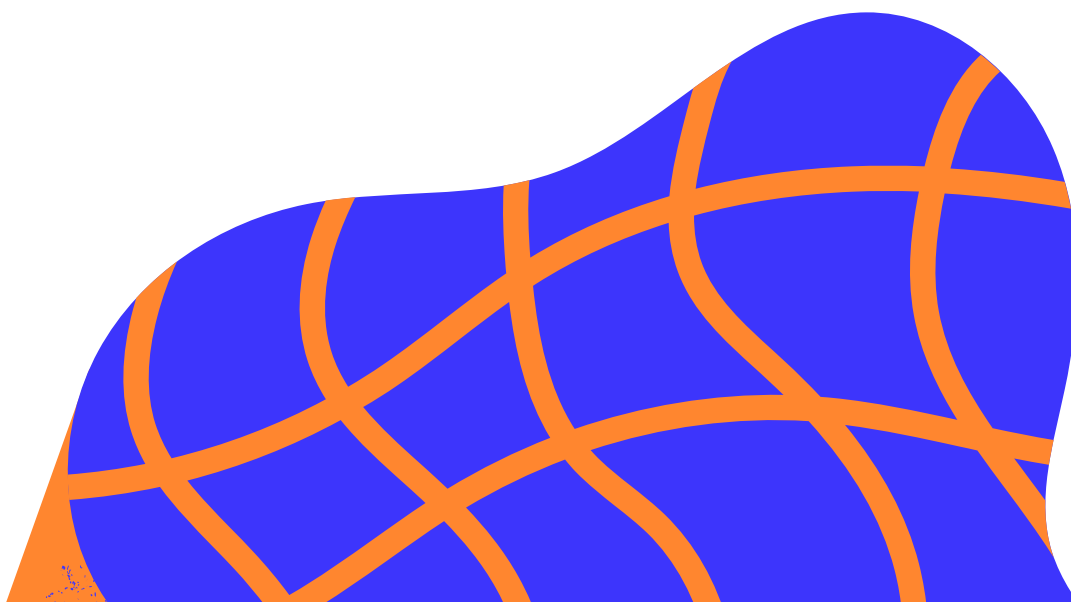
Examples

[Dalma Capital](#) [83] was originally founded as a sole hedge fund manager, headquartered in Dubai. It later expanded its portfolio of funds to include venture capital, private debt, private equity and digital asset funds. It is currently one of the global leaders in digital asset fund management, with six mandatory digital wealth funds.[84]

Kuwait-based [NBK Capital's](#) wealth management service offers best-in-class investment products for consistent growth with a central focus on transparency and risk management. The team of experts working in this field brings together decades of experience in managing investments in different regions and asset classes and offers a wide range of products according to different customer needs.[85]

Tips and Tricks

Technologies included in asset management platforms have become more accessible today. Values called assets are not directly defined by financial scope. Especially with Web3.0, there is a user expectation that digital assets are integrated with your financial wallets and accounts. You can find the source of ideas that make a difference in this field by considering the platforms where you can manage your digital assets and financial assets together and shape your investment preferences according to the recommendations.



Digital Banking and Neo-Banking

In the digital banking business model, individual and commercial bank accounts are offered with a digital infrastructure. Huge cost savings are passed on in manpower and real estate, and customers can benefit discounted rates to a great extent.

Neo Banking is the new generation banking. What distinguishes it from traditional banking is that it is completely digital. Access to neo banks is provided only through mobile and tablet devices. Providing more time flexibility, neo banking also allows all kinds of transactions to be carried out quickly and easily. In this way, dependency on physical bank branches is reduced.

Neo banks provide digital financial services such as checking and savings accounts, payment and transfer services, loans for individuals and businesses, and budgeting assistance.[86] It provides its users with opportunities like opening accounts in different currencies and making payments in foreign currency, and foreign currency transfers are much cheaper than traditional banking. It allows the use of cryptocurrencies. In addition, neo banks try to provide security in their customers' transactions through deposit guarantees and insurance policies.[87]

Examples

Xpence is a neobank for solo startups and startups that combines accounting and banking in one app. Xpence, which empowers businesses to control their spending, [88] also allows businesses to set rules and limits on their cards with virtual prepaid Visa cards.[89]

Clearly, the digital bank of the MENA region, allows all banking transactions such as money transfer, payment, check cashing to be done from one place. Thanks to its reminder feature, Clearly informs its users that the payment periods of the bills are approaching, and allows them to make payments from a single account.[90]

YAP is an application that gives its users full control over their finances and offers an innovative digital banking experience with smart tools.[91] YAP, which does not have physical branches, serves as a completely independent application.

Tips and Tricks

By providing a 100% digital experience, digital banking and neo bank samples enable users to meet their needs from mobile devices. The branchlessness approach brought along by these solutions also brings along the opportunity to become a customer of an independent bank. Discovering the basic transactions that users need beyond crowded bank features in neo bank solutions will bring creative business models.

Digital Insurance

Fintech companies have started to transfer traditional insurance services to the digital world. Fintechs, which have started to offer better insurance options, can price their premiums at varying rates depending on the customer, so they can offer cheaper coverage.

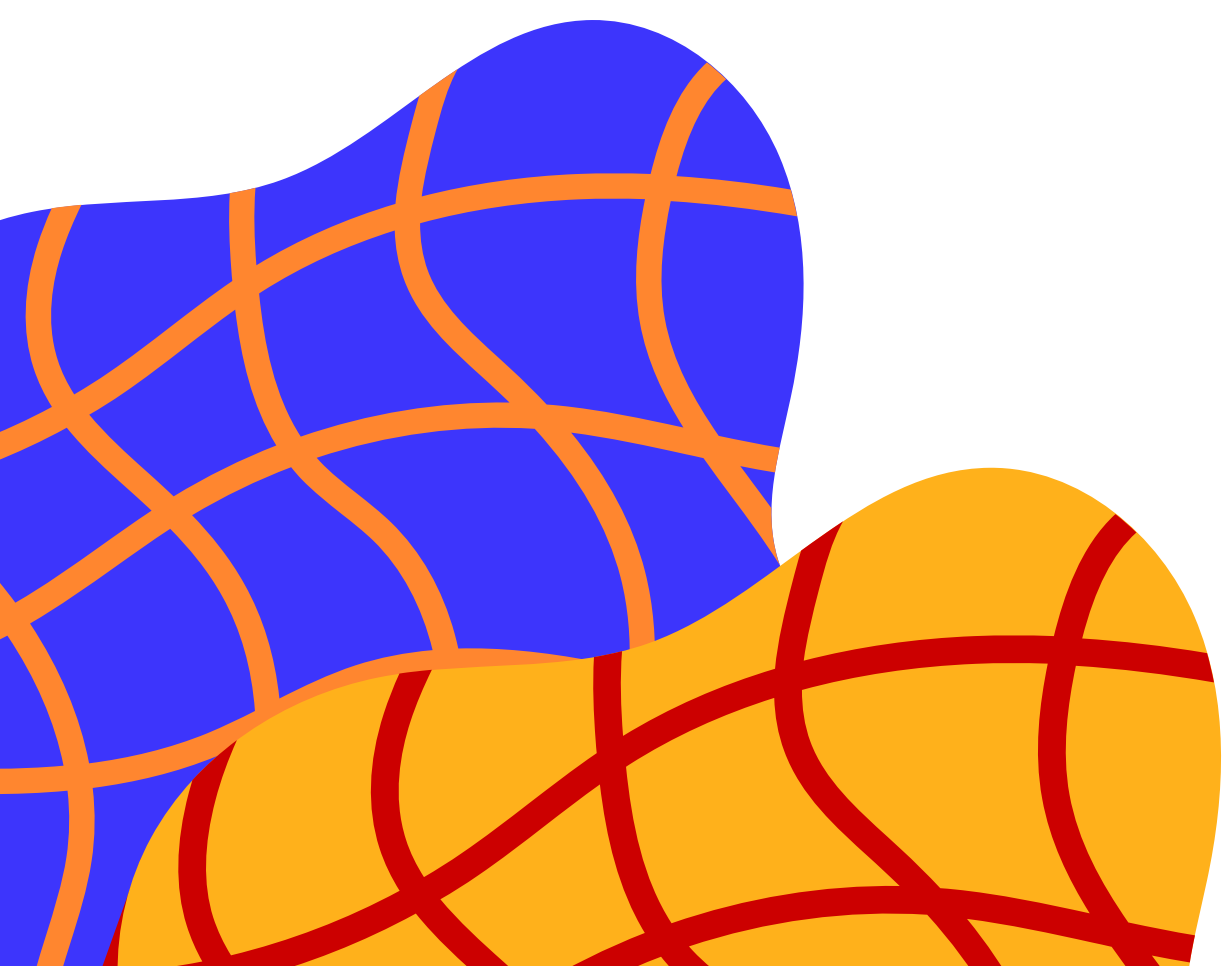
Examples

[Yallacompare.com](#) is the Middle East's leading financial comparison website. It helps users find and compare credit cards, personal loans, car loans, mortgages, insurance and bank accounts from a wide variety of local and international banks and financial institutions.[92] Especially in the field of insurance, it offers various options with insurance options for car, health, travel, home, life, pets.[93]

[Souqalmal](#) serves as the leading financial comparison site in the Middle East, with operations in Saudi Arabia, Bahrain, and the UAE. The prominent service field is insurance. It offers the best prices directly from insurance companies for car, health, travel, bike, yacht, home insurance and allows customers to pay directly to insurers. [94]

Tips and Tricks

Digital insurance solutions, inspired by digital banking solutions, stand out with customizable solutions in line with the behavior and expectations of the individual. Being secure while using it, invisible insurance, insurance as a service come into prominence as supporting trends and technologies in this field. To develop ideas in this area, you should discover what kind of experience your users need to become a customer of your company, not policies.



Buy Now - Pay Later (BNPL)

The Buy Now Pay Later (BNPL) model is a type of short-term financing that allows payment in installments at the end of the stipulated period for making a purchase. This payment method is seen as a convenient payment method for consumers and an alternative business model to credit cards. When consumers make a purchase, they register with a company that makes the payment on their behalf. The company that adopts this model is actually making a loan to consumers. Consumers are required to pay the lender within the stipulated period, either in bulk or by free equivalent monthly installments (EMI).[95]

Examples

Dubai-based [Spotii](#) is a fintech that offers the buy now pay later model to its users in an interest-free and cost-free manner. Spotii [96], which provides the opportunity to divide the payment into four installments for purchases, serves as an innovative payment platform for fashion, beauty, and lifestyle brands.[97]

[Jaib](#) provides a smart electronic payment method that does not require a card, bank or prepayment. With the buy now pay later model, users can complete their transactions with their preferred payment method after 15-30 days for all purchases. [98]

Tips and Tricks

The spread of e-commerce has brought with it the diversity of payment methods. As location-independent shopping has become accessible with e-commerce, the fact that payment methods have become associated with individual finance management has made the experience end-to-end. The world of products/services differentiated by rental and subscription models has created the need to have installable ownership. You can achieve sustainable customer acquisition by offering installment methods related to the life cycle of your products.

Open Banking

Open Banking is a reliable service model in which customers' financial data in banks are shared with third-party organizations to provide them with a better banking and financial service with customer approval.[99] The most important feature here is the collection of data from more than one financial institution. Thus, users can analyze their expenses and incomes from a single platform by means of the application programming interface (API), and they have the opportunity to make a better budget. The users can also access more personalized products and services and manage their money better with this platform.[100]

Examples

[Tarabut Gateway](#) is the largest regulated open banking platform in the MENA region. It serves financial institutions by making data accessible and providing new revenue streams. By helping fintechs test and develop their solutions, Tarabut Gateway creates value by enabling people to make better financial decisions.[101]

Tips and Tricks

It is seen that open banking applications, which radically change the relationship of customers with banking services, and even bring people with limited access to financial services together with these services, have created a great change in the sector. Countries where PSD2 is implemented and countries that are gradually preparing for these rules make banking more accessible, transparent and customizable. To develop ideas in this area, you can discover what services and products your customers need to complement the financial benefits they receive from you. The data you need to make sense to solve these needs will open up new opportunities for you in open banking solutions.

Contactless Payment

Contactless payment is a secure payment method that consumers use to purchase products or services using a bank card, credit card, smart card or other payment device, by means of radio frequency identification (RFID) and near-field communication (NFC) technology. With this payment method, consumers do not need to hand over a card or touch a payment terminal.[102]

Today, there are three types of contactless payment. These are as follows:[103]

1. Payment with contactless payment cards: When a business with a contactless payment system requests payment from the consumer, the card is brought closer to the contactless payment symbol on the terminal. The information is transferred electronically from the card to the bank using the information on the chip. When the system accepts the information, it signals with a beep, green light or check mark. The payment process ends after approval.

2. Mobile contactless payment: In mobile contactless payments, mobile devices are used instead of cards to complete payment transactions. Mobile wallets are the most frequently used applications for this payment method. Wearable payment devices, on the other hand, provide convenience for people who do not want to carry a phone or wallet. The market for these devices is expected to reach a volume of \$82 billion by the year 2026.

3. Payment by code: The business which has a code payment system, provides a QR code for customers to scan using their smartphones. With this method, there is no need to use cash or cards.

Apple Pay, Google Pay, Samsung Pay and Fitbit Pay are among the most well-known examples of contactless payments, while any bank mobile application can also support contactless payment.[104]

Examples

Pyypl provides contactless digital payment methods to nearly 1 billion smartphone users in the Middle East and Africa. Thanks to the blockchain-based technology platform, users can manage their money directly from their mobile phones and make necessary payment transactions contactless.[105]

Aman Cash allows users to transfer money and make payments from their smartphones. With the express payment service it offers, it enables reliable and easy payment by scanning the QR code of the store where you shop.[106]

Tips and Tricks

Contactless payment methods take the value offered to customers to a next step with the opportunities they offer, especially in the post-pandemic period. Users have come to demand the contactless approach, which also supports the cashless trend, not only for cards, but also with mobile devices and wearable technologies. If we want to update our business models with contactless technologies, we can identify contactless points by analyzing how many times and where people contact end-to-end in a purchasing experience.

Cashless Payment

Cashless payment is a payment method without cash. Payments made with debit cards, checks, mobile wallets, QR codes or any online payment method that eliminates the need for cash are cashless payments.

Examples

Abu Dhabi-based [Payby](#) provides cashless mobile payment services and digital wallet services. Payby, which provides fingerprint payment without identifying bank details to mobile devices, enables easy payment via QR code or online payment link.[107]

[Foloosi](#) is a UAE Fintech initiative that facilitates payments by providing QR code, payment links and API integrations for its customers to pay. It offers an advanced cashless digital solution by enabling fast and secure payments based on QR codes and card networks.[108] Foloosi technology is supported by a powerful customer management system.[109]

Standing out with its cashless payment method, [Ziina](#) offers new generation financial services. Allowing its users to make transactions with payment links and QR codes, Ziina also works with debit cards, credit cards, Apple Pay and Google Pay.[110]

Tips and Tricks

Cashless payment is a trend that financial technologies have been shaping for a long time. It is necessary to analyze why this technology is preferred beyond its methods such as QR, link, swipe etc. Users expect payment, the least fun part of their purchasing experience, to become easier day by day. In order to develop solutions in this field, you can think about what we should do to complete their experience faster, at the point of contact with our customers.

2022 Expectations in the Fintech Sector

The expectations in the Fintech sector are as follows;[111]

- The digital banking trend predicted for 2021 is a trend that is expected to become widespread in 2022. More digital institutions will provide remote service.
- It is predicted that the Buy Now - Pay Later payment method will make progress in becoming the mainstream.
- Banks will continue to develop open APIs to collaborate with Fintechs.
- The fact that blockchain technology reduces costs in capital markets, provides security in transactions, especially when it comes to identity management, and accelerates asset transfers, payments and investments are among the advantages gained. It is also widely used to combat fraud, manage regulatory and audit issues. Therefore, it is thought that the use of blockchain will increase even more for 2022.
- Blockchain-based fundraising and the use of crypto technologies across industries are predicted to increase.[112]
- It is thought that automation and blockchain technology will be used more in financial operations. Therefore, more contactless transactions will take place.[113]
- The increase in the contactless payment limit raises public concern about fraud. Banks and Fintechs will further consider approaches to enhancing consumer safety to address these concerns.[114]
- It is predicted that neobanking activities will be carried out by more consumers. [115]
- It is predicted that more consumers will prioritize open-banking options. Additionally, more organizations and trusted brands adopting open banking features are expected to adopt this technology more widely.[116]
- Artificial intelligence and machine learning will continue to be one of the important technologies that transform and influence Fintechs. In addition, low-code and no-code module-based solutions will increase its popularity by means of the ability to customize the software without having to develop a tailored solution for customers.[117]
- Mobile wallets will continue to be among the information technology investment priorities.[118]
- Embedded finance applications are expected to be in a strong growth trend. [119]

- Platform as a Service (PaaS) will be an emerging trend for Fintechs and financial institutions. By means of this platform, institutions will be able to adapt to changes in regulation by adopting cloud technology.[120]
- Towards the end of 2022, news about the Metaverse universe dominated the agenda. While there is currently limited information on how metadata servers will work, a new infrastructure based on open ecosystems for digital assets and payments is considered necessary.[121]
- Climate has become more important than ever in the field of fintech, as it is in every sector, and the concept of "Green Fintech" has emerged. The desire of individuals to invest their funds in green, environmentally friendly banks is prominent and the industry needs to respond quickly to this demand.[122]

What is Web 3.0? What is it Located in the Field of Finance?

Web 3.0 refers to a personalized, blockchain-supported structure that can be used in a decentralized and peer to peer manner. Today, people can be contacted via the internet through an intermediary. For example, while people stay in touch with applications such as Whatsapp, Instagram, Facebook, Twitter, etc., thanks to Web 3.0, decentralized applications are created and thus people stay in direct communication without any intermediaries. While applications are currently paid to listen to a song or read a news, thanks to this system, the content producer will be able to bring their work directly to the user without an intermediary, and the fee will be paid to the content producer. Intermediary applications will not be able to make a profit from here.[123] It is seen that the Web 3.0 process has started slowly with NFT, cryptocurrencies, Metaverse.

When Web 3.0 is mentioned, the concepts of crypto money, NFT and Metaverse are often used side by side. But there are differences between the terms. Looking at this difference, Web 3.0 refers to the internet structure where content can be created, shared and coded. Since there are different blockchain-based projects in this structure, there are various cryptocurrencies known as coins. NFTs, on the other hand, are defined as a unique digital asset with a picture, sound, video or physical equivalent. Each NFT represents a digital asset and is therefore a non-interchangeable blockchain-based unit of data. [124] Metaverse, on the other hand, refers to a virtual environment that provides access to various entertainment and projects through avatars and with the support of augmented reality technology. Web 3.0, blockchain applications and NFTs will be the intermediaries that enable the integration of Metaverse with the real world. [125]

On the other hand, the impact of Web 3.0 in finance is seen on DeFi (Decentralized Finance) and cryptocurrencies. As for their definition, DeFi is financial structures that are not dependent on a center or authority. This structure emerged in order to create a more democratic financial system and to enable people who do not have access to traditional financial systems to do their financial work. Components of DeFi include protocols, digital assets, dapps and smart contracts built on blockchain. Since cryptocurrencies such as Bitcoin and Ethereum are built on their own networks, they do not have a specific central and decision-making authority. Therefore, these systems are good examples of DeFi.[126]

There are many DeFi projects that continue to be launched today, and coins (cryptocurrencies) created for the networks these projects own. Examples of these cryptocurrencies are DeFi tokens such as [Uniswap](#), [Maker](#), [Compound](#). [127] These tokens are not built on independent blockchains or networks. It runs on the existing blockchain and is therefore much easier to create. Most of the tokens encountered in the market are built on the Ethereum blockchain.[128]

Since there is a wide variety of blockchain-based projects in Web 3.0, there is also a wide variety of coins. The mentioned Metaverse project creates an independent, virtual financial system with cryptocurrencies known as coins and NFTs and is part of the Metaverse economy. Systems within the economy structure, called metanomics,[129] will offer transactions such as purchasing clothes or accessories for online avatars, virtual shopping experience in virtual malls, purchasing digital land, purchasing digital art, collections and assets (NFTs) to the consumers' experience.[130] Some examples and coins from various projects are as follows;

Theta Network Project: It is a blockchain powered network designed for streaming video. This network structure was created to share video content peer to peer, to reach higher quality broadcasts for viewers, and to create infrastructures at low cost. It offers its participants management options within the network with its native token, THETA. Cryptocurrency exchanges can convert this token into different currencies. [131]

Decentraland Project: Virtual reality platform powered by Ethereum blockchain that allows users to create, experience and monetize content and apps. On this platform it is possible to buy and sell digital houses, cars, and land. This virtual reality world is divided into plots called LAND. Users earn money by renting the LANDs they hold, advertising on them, and offering paid experiences. With MANA, which is the currency of the project, users earn income by creating and selling products in this virtual market. [132]

Enjin Coin: It is a project of Enjin company, which provides an interconnected ecosystem for blockchain-based gaming products. [133] In this established system, virtual goods related to games and similar shares can be shared with ENJ coin, which is the currency. Users can come together and chat with each other by creating clans.[134]

The Graph Project: The Graph project, which is seen as a data validation system, specifies the indexing protocol used to query data on networks such as IPFS and Ethereum in the Web 3.0 ecosystem. Every user here defines open APIs called “subgraph” to pull data from blockchain. Represented by the currency GRT, this project offers a reliable, decentralized open infrastructure.[135]

Audius: The Audius project, which emerged with the aim of helping music producers earn a fairer income, describes a decentralized music streaming protocol running on the Solana blockchain. In the project, which is represented by AUDIUS currency, it is aimed to establish a fair art ecosystem by making the ownership of music rights transparent and eliminating producers and intermediaries between artists and listeners. [136]

The Metaverse projects mentioned as examples and many more are part of an economy system called Metanomics.

Web 3.0 will also change the field of Fintech and take the financial services we know today to a different point. Control of current financial services will shift from centralized institutions such as banks to a different decentralized model, and this is starting to happen. Each process in the value chain in financial services, such as banking, insurance, capital markets, will be carried out differently by different actors. [137] For example, **Algorand** serves as a scalable, secure, and decentralized digital currency and transaction platform[.138] Yieldly, the interconnected DeFi platform designed and developed on Algorand, enables decentralized peer-to-peer lending using digital currency and providing access to financial services to anyone from around the world. Yieldly serves as a smart contract protocol on Algorand,[139] allowing users to exchange ASA assets.[140]

Overall Conclusion

Fintech sector, which is a new financial industry, transforms traditional financial transactions into more advanced new financial services thanks to technology. This sector, which enables financial transactions to be carried out in a digital environment, provides services beyond traditional banking transactions by offering fast and efficient methods. The main purpose here is to present the financial products or services produced to consumers faster, better and at lower costs. The basic philosophy is to spread finance to the base by making the lives of consumers easier.

Fintechs, while offering a new product or service to their users, offer various advantages such as [savings, flexibility, transparency, efficiency, analysis, accessibility and price advantage](#), while increasing loyalty and satisfaction by improving the user experience with [personalized products](#).

Fintech has an important place in the MENA region. Many new start-ups in the region operate in the fintech sector. Especially digital payments are the most preferred service used by banking customers. [Having 30 Fintech companies in 2017, the Middle East is expected to host 465 financial technology companies in 2022.](#)

This field is rapidly developing with a compound annual growth rate of 30% in the region. One of the most important factors of this development is that about half of the 400 million people in the region are under the age of 25. At this point, it is anticipated that the pressure for digital-first solutions in financial transaction fields will increase.

The concept of [Islamic Fintech](#) is important for the MENA region. This concept defines the realization of financial products, services and investments in accordance with the religion of Islam on the basis of innovation and technology. Islamic fintechs offer a product portfolio with no hidden costs by adopting an ethical approach. Saudi Arabia, Iran and the United Arab Emirates, located in the MENA region, are among the countries with the highest Islamic Fintech transaction volumes.

In [Algeria](#), although mobile connections are above the MENA regional average, digital financial services usage is in a low position. Only 16% of adults and only 11% of women use digital pay.

Fintech firms in [Bahrain](#) have doubled in the last four years. The expansion of the industry in the country is due to the existence of traditional financial service limitations. In response to this situation, technological resources are increasing.

In [Egypt](#), there has been extensive growth in the fintech industry in the country over the last 7 years. Regulatory changes, especially in the last 2 years, are seen as the most important factor in the growth of this sector. The largest segment of the fintech market in the country is composed of fintech companies operating on payments & remittance with a rate of 30%.

The central bank of Iran has been working on the 2025 roadmap, which aims to develop a strong future for the banking system, especially since 2017.

Fintech space in Iraq is a new and emerging market. The country has not enacted a specific law to govern this area. However, there are legal doctrines that can be applied to certain regulated activities conducted by fintech organizations.

[Israel](#) has a thriving fintech market. 2021 saw a boom in financing, with investments in fintech startups and companies reaching \$4.5 billion during the year. Most of the fintech companies in the country focus on digital payments, fraud prevention and security.

[Jordan](#) central bank is aware of the necessity of keeping up with the rapid developments in financial technology to serve the banking and finance sector in a stable manner. With this awareness, the central bank established a fintech sandbox and formed a fintech specialized committee working with all banks.

Peer to peer money transfer in [Kuwait](#) is among the most preferred services for individuals aged 20-40 in the country, and the use of this service is concentrated in the lowest income group.

Despite the increase in fintech companies competing on a global scale in [Lebanon](#), the sector still has a bank-centered structure as consumers prefer traditional institutions.

Fintech sector in [Libya](#) is open to development. There are 8 main players in the sector, including fintech startups, technology developers, universities, technology companies, government, insurance companies, corporate banks and the central bank. Many banks and companies give priority to the work to be done in this field.

[Morocco](#) is considered the third largest fintech hub in the Arab world. There are more than 40 active fintech solutions and the most advanced segments include payment, remittance and POS systems.

[Oman](#) is a state that has given importance to digitalization and innovation for many years. In order to have a dynamic digital financial ecosystem that promotes financial development, the Central Bank of Oman (CBO) gives priority to the development of Fintech in the financial sector with its regulations.

[Qatar](#), which attaches importance to digitalization, encourages Fintech investments. It creates a solid enabling environment especially for mobile payment system and payment-oriented fintechs.

[Saudi Arabia](#) is one of the countries that gives importance to the fintech sector. It is among the top performing countries, especially in the Islamic Fintech market. With the increasing interest in open banking, the Saudi Arabian Central Bank (SAMA) has created the open banking framework to develop activities in this field.

In [Tunisia](#), the central bank believes that financial technologies will improve user experiences. There are also many people who do not have a bank account in the country. This situation is seen as an opportunity for the development of fintechs.


[The United Arab Emirates \(UAE\)](#) is seen as the largest player in the fintech sector in the MENA region. Having 400 fintech startups according to 2020 data, UAE plays a major role in the field of Islamic finance and is among the top five countries with Islamic fintechs. There are few fintech companies operating in open banking.

In recent years, policy makers and regulators in [Palestine](#) have begun to pay more attention to the fintech sector and to consider its socio-economic impact. Mobile payment services and the use of digital wallets are allowed in the country. In January 2021, the "National Fintech Taskforce" was created, which aims to organize collective efforts to explore the potential of the fintech sector and promote this space in Palestine.

[Yemen](#) has a cash-based economy. The country's official banking sector is underdeveloped, and the official payment market includes three types of financial service providers. These are commercial and Islamic banks, microfinance banks and microcredit institutions and money exchange companies.

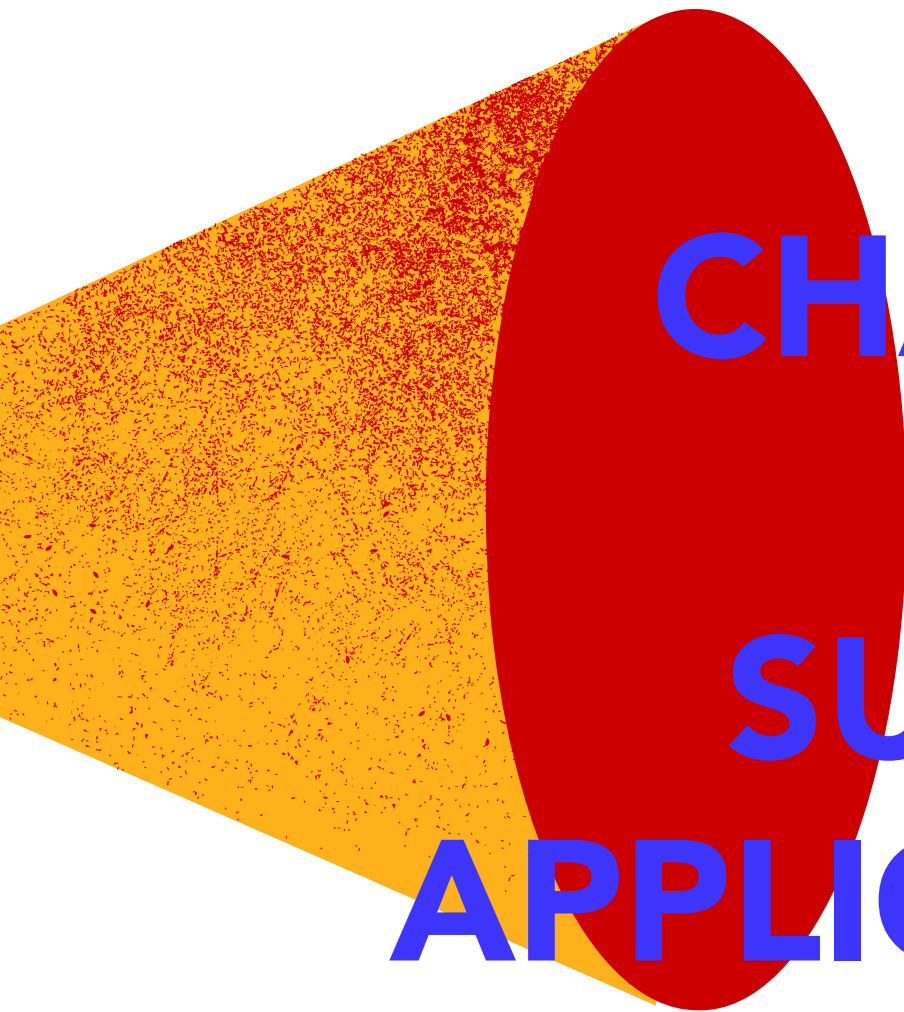
[Technologies used in the fintech industry](#) are artificial intelligence and machine learning, big data and data analysis, robotic process automation, blockchain technology, cloud computing technology, internet of things (IOT), open api, chatbots, virtual reality-augmented reality technologies.

[The prominent trends in the fintech sector](#) are alternative credit score, alternative insurance, transaction delivery, peer-to-peer (p2p) loan, small amount loan, payment systems, digital wallets, wealth management, digital banking and neo banking, digital insurance, buy now pay later (bnpl), open banking, contactless payment, and cashless payment.



Digital banking is at the forefront among [the sector expectations for 2022](#). It is foreseen that this service will become more widespread for the mentioned year. It is stated that mobile wallets will continue to be at the forefront among the investment priorities of information technologies. It is thought that the Buy Now - Pay Later payment method will move towards becoming mainstream. It is stated that open APIs will be developed further. This is because banks want to cooperate with Fintechs. It is predicted that the use of blockchain, technology, automation, artificial intelligence, and machine learning will increase gradually. It is thought that banks and Fintechs will further consider approaches to improve consumer safety to address fraud concerns. Embedded finance applications are expected to be in a strong growth trend. With the emergence of the Green Fintech concept, people want to invest their funds in green, environmentally friendly banks. Therefore, the industry needs to respond quickly to this demand. It is thought that a new infrastructure based on open ecosystems is required for digital assets and payments, as the universe of the Metaverse begins to be talked about. Platform as a Service (PaaS) is predicted to be a rising trend for Fintechs and financial institutions.

[The impact of Web 3.0 in the financial sector is seen on DeFi \(Decentralized Finance\) and cryptocurrencies](#). Today, there are coins (cryptocurrencies) created for many DeFi projects and their networks. In particular, the Metaverse project creates an independent, virtual financial system with coins and NFTs. Example projects include Theta Network, Decentraland, Enjin Coin, The Graph and Audius.



CHAPTER 2 SURVEY APPLICATION

Survey Methodology

Citizens living in MENA countries were taken into account in the survey study, and a total of 255 people were surveyed with 18 questions. These people were asked questions about cashless and contactless payment methods. The questions were prepared using Mastercard's 2020 Contactless Survey[141] and Schweizerische Nationalbank's Survey on Payment Methods 2020[142] studies.

Findings

General Information of Participants

It is not known from where only two of the respondents participated. The remaining participants reside in Israel.

The average age of the participants is 30. The youngest is 18 years old and the oldest is 73 years old. The majority are between the ages of 25-44. While 42% of the participants are in the 25-34 age range, 30% are in the 18-24 age range. 4% are 55 years or older. Those between the ages of 35-44 make up 15% of the participants. 9% of them are in the 45-54 age range.

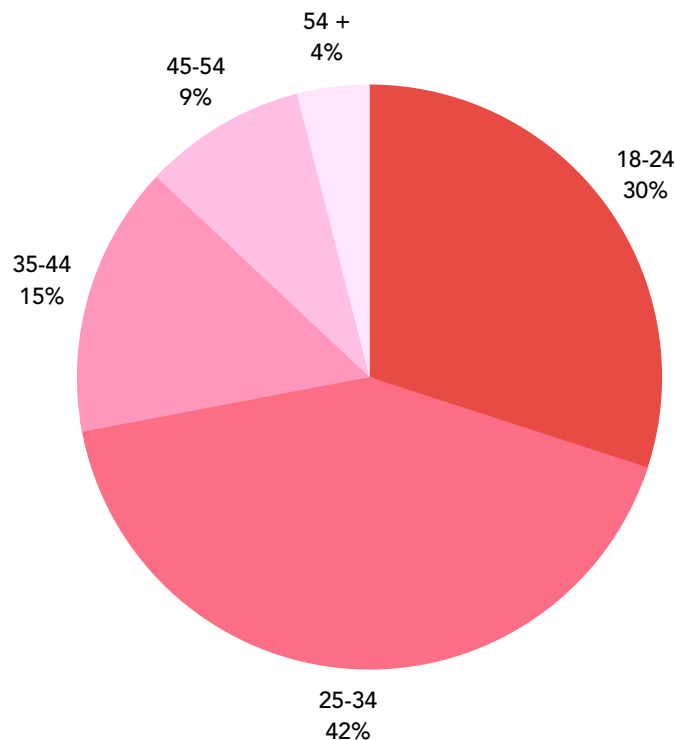


Chart 1: Distribution of Participants by Age

Most of the participants are women. 38% of them are male participants. Only 2% of the population is not gender specific.

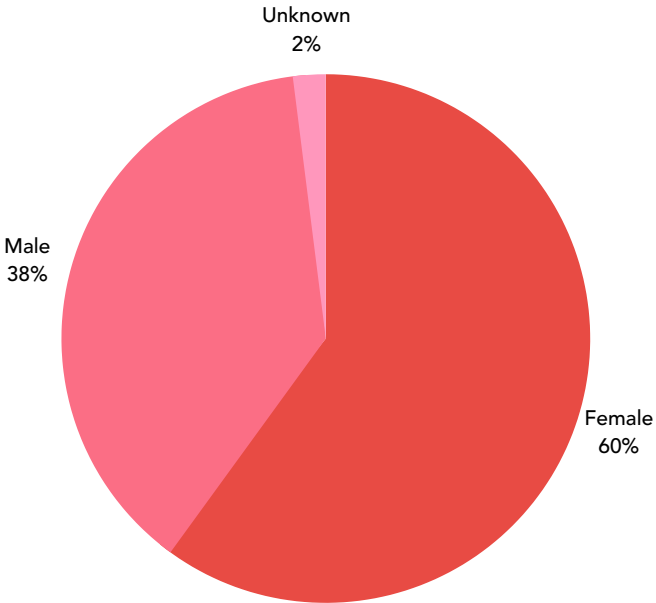


Chart 2: Distribution of Participants by Gender

Most participants either work full time or their employment status is unknown. The rate of participants who do not work in a paid job (work at home, retired or disabled) is 4%. Part-time employees have a share of 18%. 7% of them are unemployed and looking for a job. Only 1% will start working in a new job in the upcoming period. There is a group of 2% of participants who are seen as other.

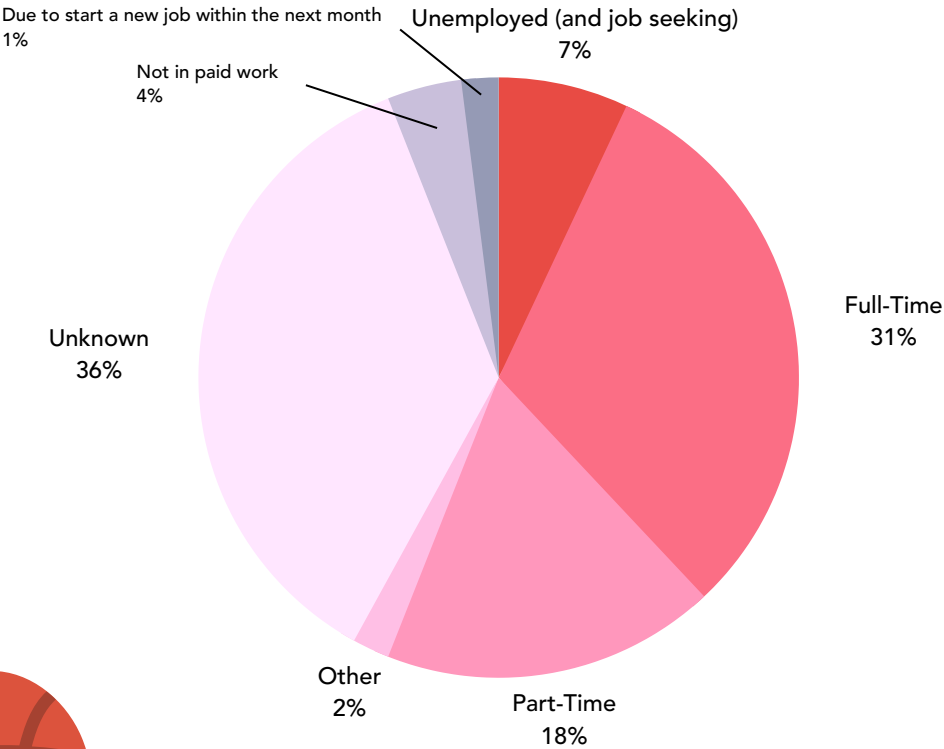


Chart 3: Distribution of the Participants According to Their Working Status

Majority of the participants speak Hebrew language. It is not known which language 13% of them speak. There is an 8% group of respondents who speak Russian. Arabic speakers are 5% and English speakers are 4%. Speakers of other languages are only 1%.

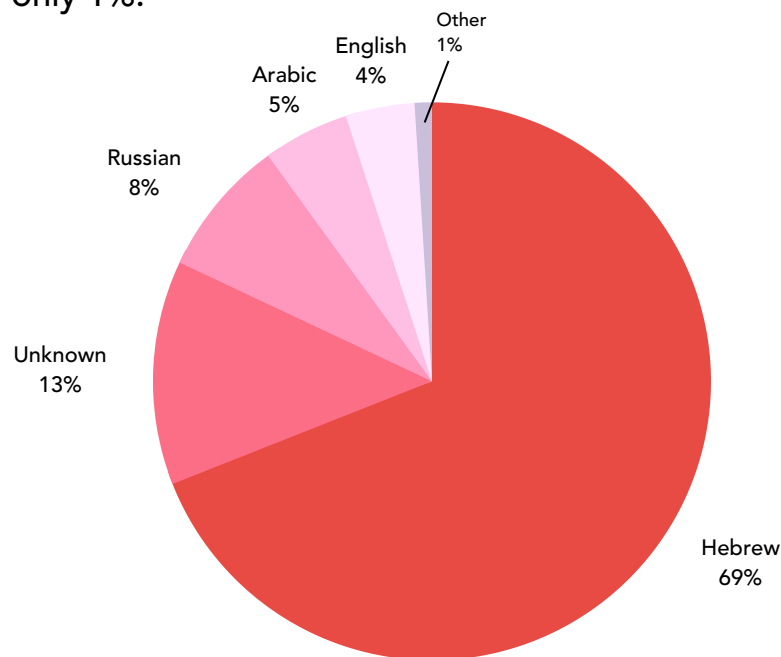


Chart 4: Distribution of the Participants According to the Languages They Speak

Cashless Payment

Most of the participants have used the cashless payment method at least once in their lives. Only 6% did not use the cashless payment method. These participants stated that they did not know what such a method was, or they generally paid in cash as the reasons for not using the cashless payment method.

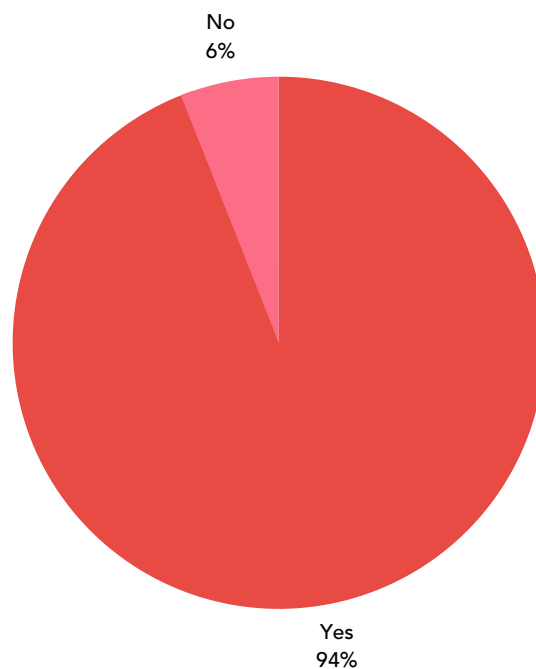


Chart 5: Cashless Payment Method- Distribution of Participants by Use

76,2% of the participants making transactions with cashless payment physically use a credit or debit card. While 20,8% make cashless transactions with online or mobile payments, 2% perform their transactions with automatic payments and bank transfers. Only 1% of them pay by check.

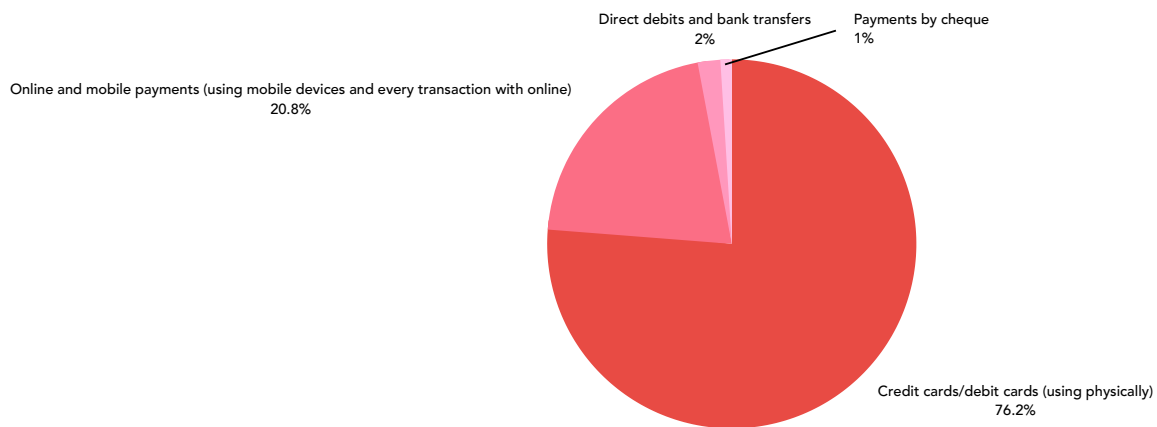


Chart 6: Cashless Payment Method- Distribution of Participants by the Means They Use

Women use credit or debit cards, online or mobile payment transactions, automatic payments, and bank transfers more than men when making cashless payments. There are only female participants who make payment by check.

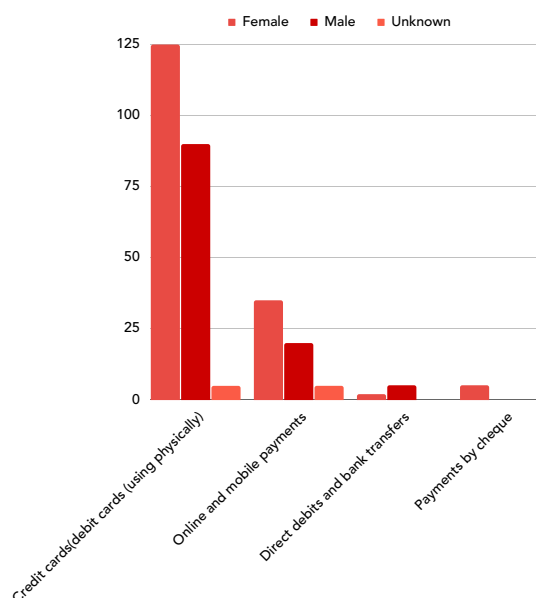


Chart 7: Cashless Payment Method - Distribution of Tools Used by Participants by Gender

The 25-34 age group mostly uses credit or debit cards physically. The 18-24 age group, on the other hand, makes cashless payments with online and mobile payment transactions. The 35-44 age range is higher among those who use direct debit and bank transfers compared to other age groups. There is only the 25-34 age group who can make cashless payments by check. The age group of 45-54 and over 55 prefers credit or debit card, online and mobile payment methods when making cashless payments.

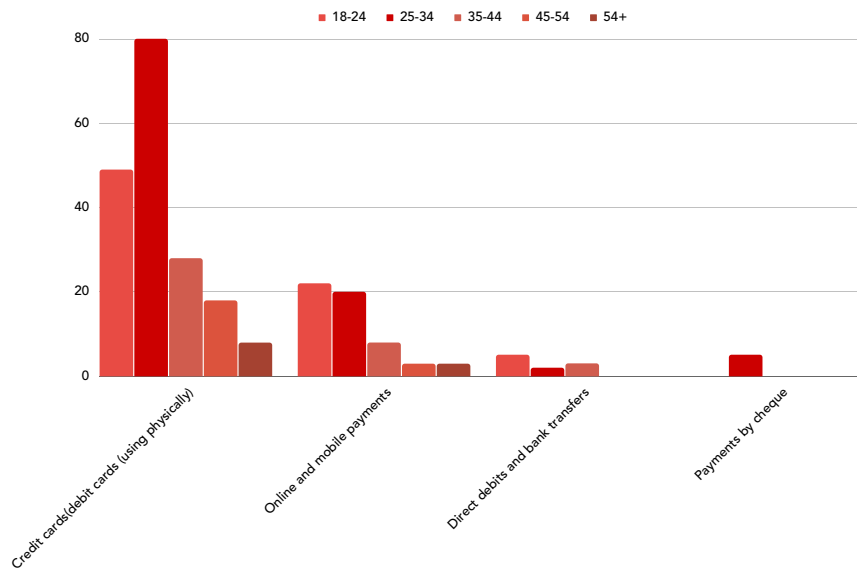


Chart 8: : Cashless Payment Method - Distribution of Tools Used by Participants by Age Groups

A portion of the participants whose employment status is unknown and full-time employees use more credit or debit cards, online and mobile payment methods. Only full-time employees use the check when making cashless payments.

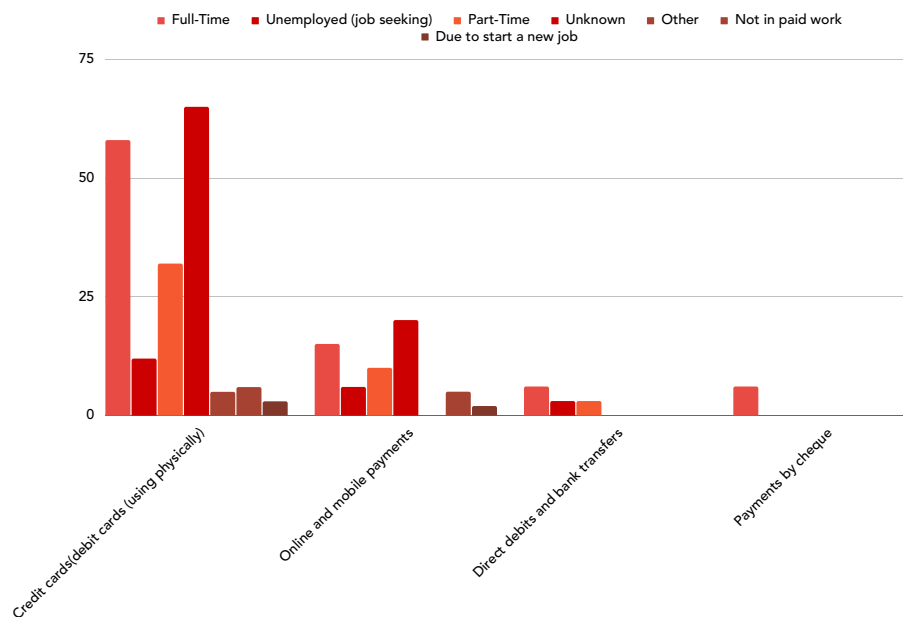


Chart 9: Cashless Payment Method - Distribution of Tools Used by Participants by Working Status

35.6% of the participants make their cashless payments at general merchandise/shopping, and 26.7% at restaurants/bars. 16.8% use this method in grocery/convenience, and 6.9% use this method for bills, rents, loans, and taxes. There is an 7.9% of people who use cashless payment method in fast food/cafes. Very few people make cashless payments at gas stations. About 1% of them state that they choose this payment method in other places, and they use it everywhere and for private lessons. In addition, it is seen that while women use cashless payment transactions more in the specified fields compared to men, participants in the 25-34 age group use it more than participants in other age groups in the specified places.

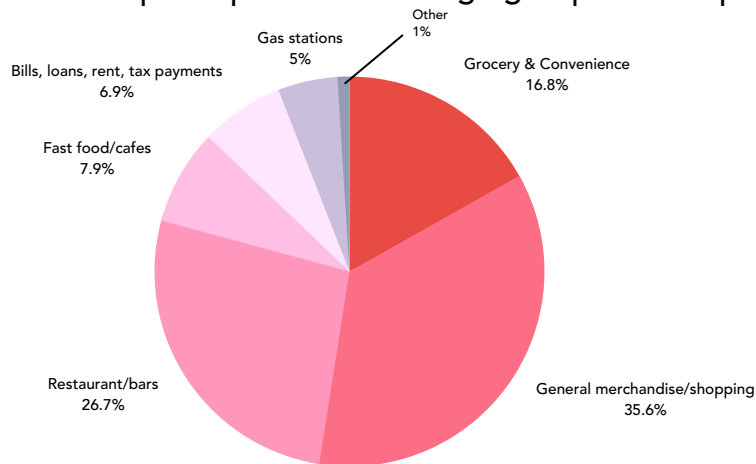


Chart 10: Cashless Payment Method - Distribution of Participants by the Places Where They Use the Method

Participants make cashless payments in different places, and this situation differs according to the working status of the participants. Full-time employees mostly use cashless payment method in general merchandise/shopping and dining/cafes. A segment whose working status is unknown uses this method mostly in grocery/convenience and bills/loans/rents/tax payments. Most of those who use this method at gas stations are part-time workers or people whose working status is unknown. It has not been observed that full-time workers and unemployed/job seekers use this method at gas stations. Unemployed/job seekers do not use this method for paying bills/loans/rents/taxes.

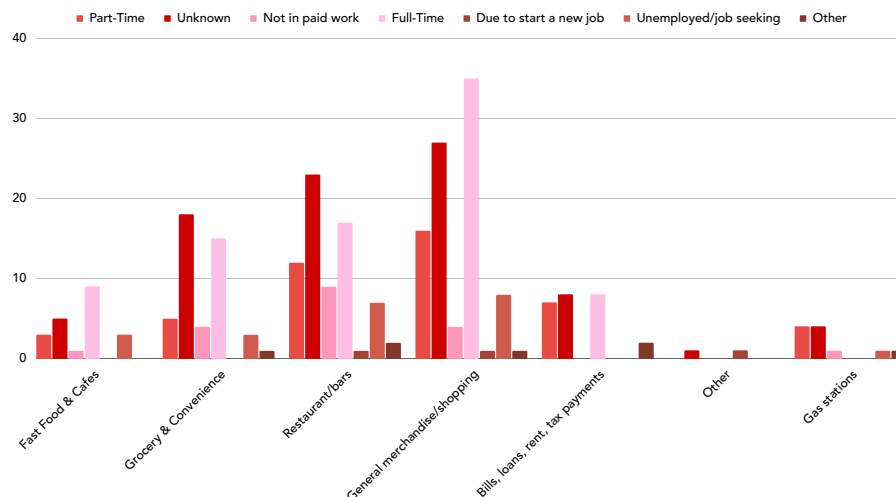


Chart 11: Cashless Payment Method - Distribution of Participants by Employment Status of the Places They Use the Method

It was examined how often the participants used the cashless payment method before and during the Covid-19 pandemic. During the Covid-19 pandemic, there has been an increase in daily, monthly, and weekly use of this method. Daily and use 3-6 times a week are the indicators that show the highest increase. Participants using this method 1-2 times a year and little or no use decreased during the pandemic.

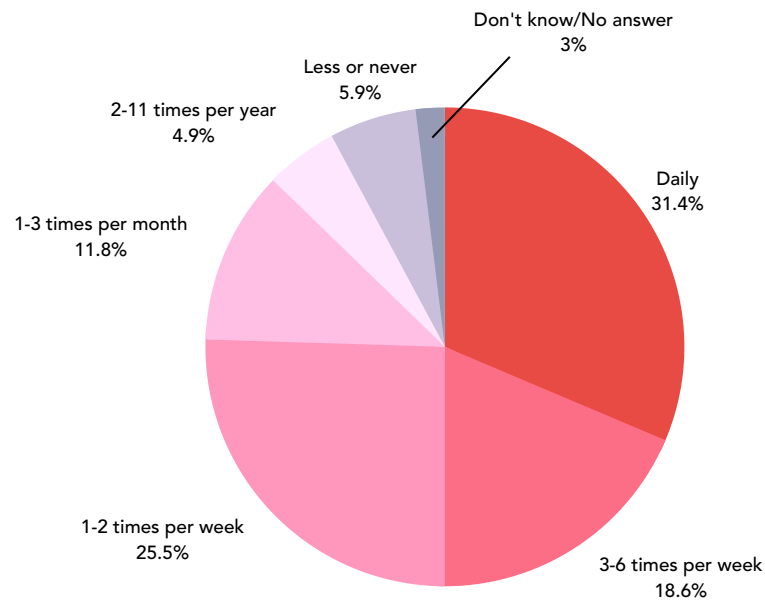


Chart 12: Cashless Payment Method - Distribution of Participants by Frequency of Use Before the Covid 19 Pandemic

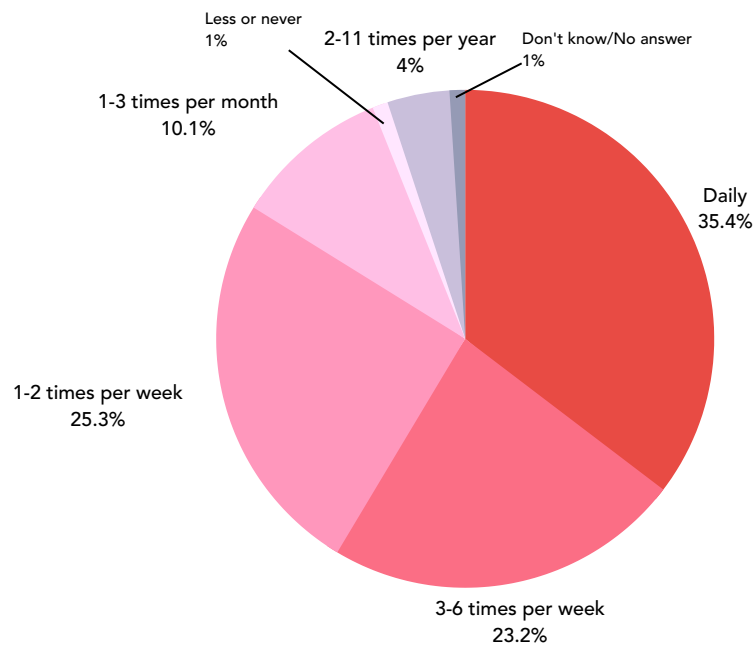


Chart 13: Cashless Payment Method - Distribution of Participants by Frequency of Use During the Covid 19 Pandemic

Convenience is seen among the most important reasons for adopting a cashless payment method. 77% of the participants state that they have adopted the cashless payment method because of its convenience. Another important reason is that the cashless payment method allows easy tracking of expenditures. 14% state that they adopt this method because of the easy tracking of expenditures. 5% stated that they adopted the cash payment method due to discounts/repayment awards and 3% due to the shortage of banknotes. Only 1% of respondents adopted this method for other reasons. These reasons include that card payments for taking the bus are only cashless and shops and banks are promoting this method a lot. In addition, it is seen that women come to the fore more than men in terms of adoption.

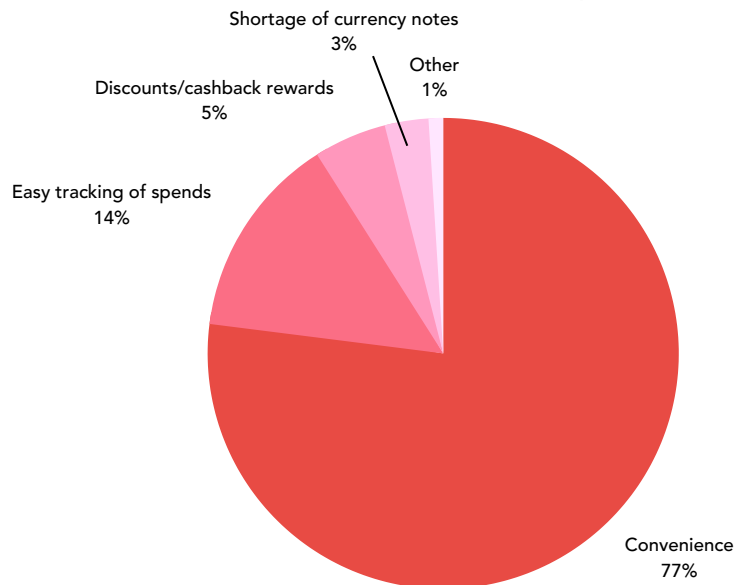


Chart 14: Cashless Payment Method - Distribution of Participants by Reasons for Adopting the Method

Participants in the 25-34 age group and female participants are at the forefront of each of the reasons for adopting the cashless payment method. Full-time, part-time employees and participants whose employment status is not known are more common than the others, who indicate convenience and easy tracking of expenditures among the reasons for their adoption. Among the participants who stated that they adopted the cash payment method due to the shortage of banknotes, those whose employment status is not certain are at the forefront. Full-time employees and those whose working status is uncertain, who state that they have adopted them due to discounts and reimbursement awards, are at the forefront. The participants stating the other reason for adoption are part-time or unemployed/job seekers.

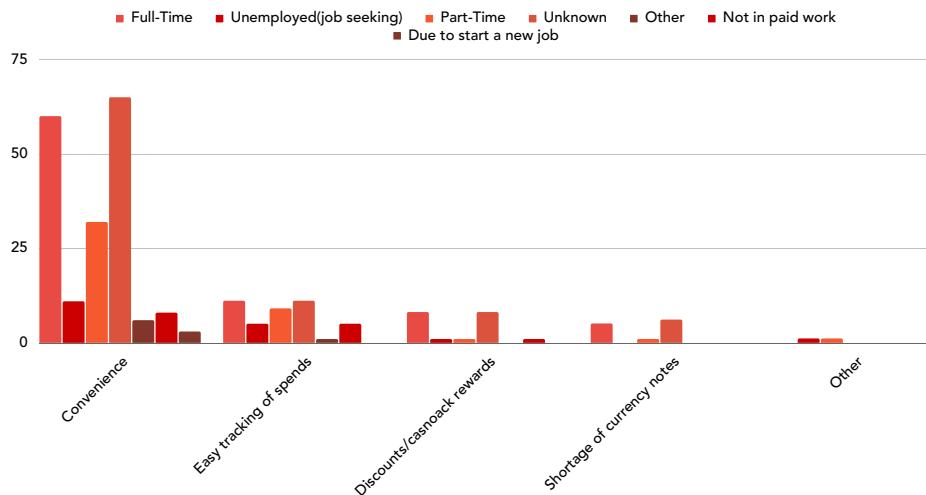


Chart 15: Cashless Payment Method - Distribution of Participants' Reasons for Adopting the Method by Employment Status

The most important issue of concern regarding the cashless payment method is security. 68% of respondents are concerned about this method for security reasons. 13% of respondents are concerned about merchant acceptance. 8% of them have a bad internet connection concern in this method. Respondents with very few percentages are concerned about costs (6%) and lack of technical knowledge (1%). Only two of the participants stated that they did not have any concerns. Only 4% of respondents are concerned about other reasons. Other reasons for concern include:

- Lack of control over payments
- Spending too much without thinking or noticing
- People addicted to phones and battery life

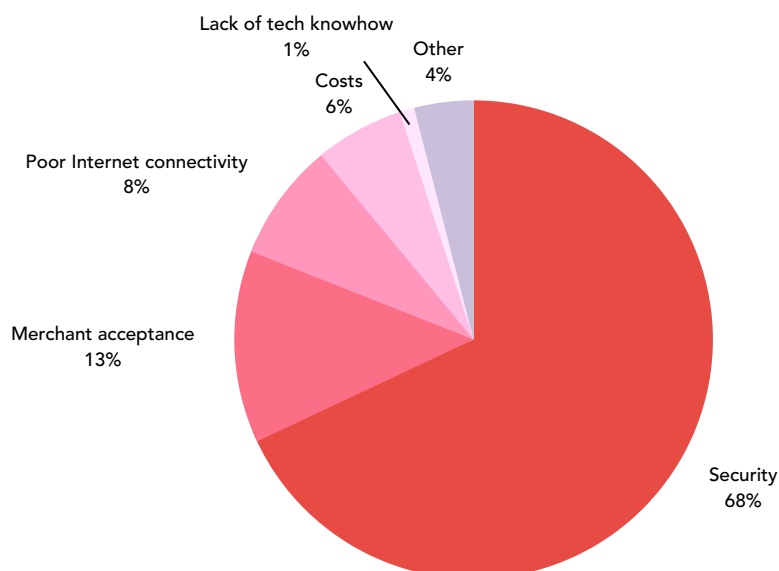


Chart 16: Cashless Payment Method - Distribution of Participants by Concerns about the Method

The reasons for the participants' concerns about this payment method differ according to their gender, age, and employment status. It has been observed that women are more at the forefront of matters of concern than men. The 25-34 age group is at the forefront of each of the causes of anxiety. Those who are only concerned about the lack of technical knowledge are in the 18-24 age group. Most of the respondents who are concerned about security and poor internet connection are full time workers. Participants who are more concerned about costs and merchant acceptance are those whose employment status is uncertain.

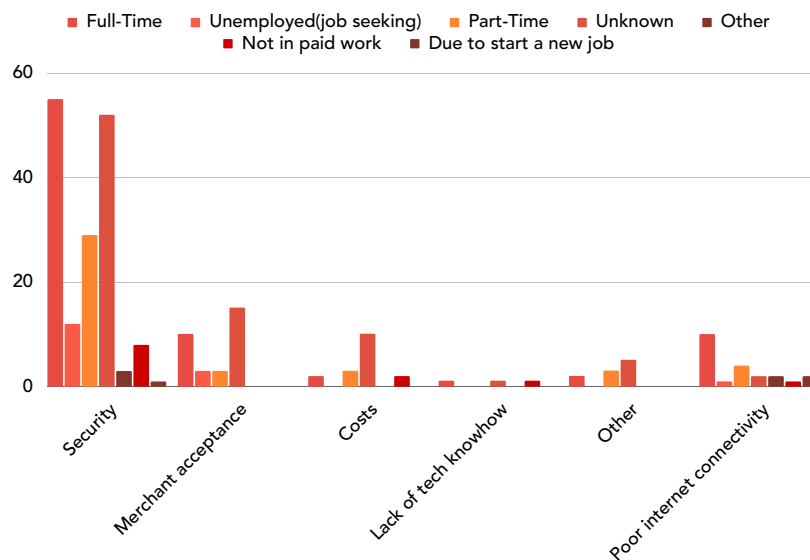


Chart 17: Cashless Payment Method - Distribution of Participants' Concerns about the Method by Employment Status

Most participants think that cashless payment is more convenient than cash. Only 8% state that they do not find the cashless payment process appropriate when compared to cash.

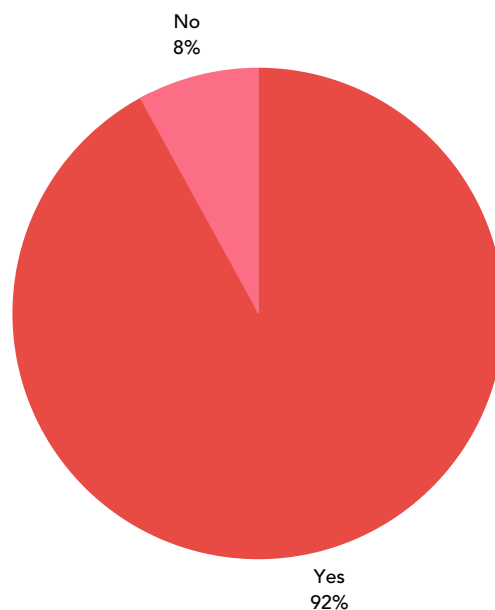


Chart 18: Cashless Payment Method - Distribution of Participants by Approval of the Method

Contactless Payment

Most of the participants used the contactless payment method at least once in their lives. Only 14% did not use the contactless payment method. Among the reasons for not using this method are the following:

- Not knowing what contactless payment method is and how
- No opportunity to use this payment method
- Not seen as a safe method
- Not encountering any tool that supports the method
- The tools used in payments do not support the contactless payment method
- Choosing to pay by physical means
- Lack of interest

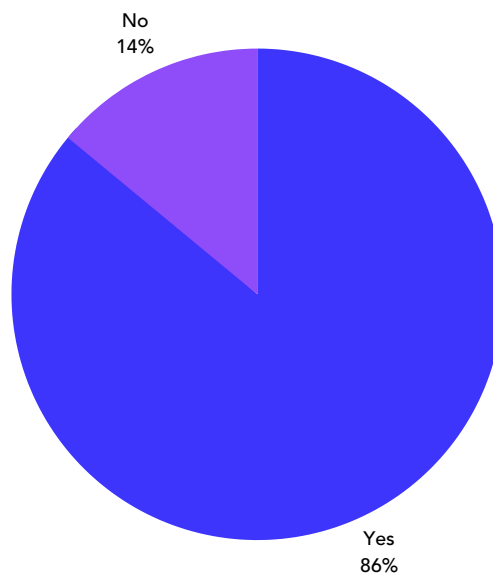


Chart 19: Contactless Payment Method - Distribution of Participants by Usage

62% of participants who make contactless payments prefer credit/debit cards/smart cards. 29% use in-app payment method. While 5% make contactless payments with wearable payment devices, 3% make payment with QR code.

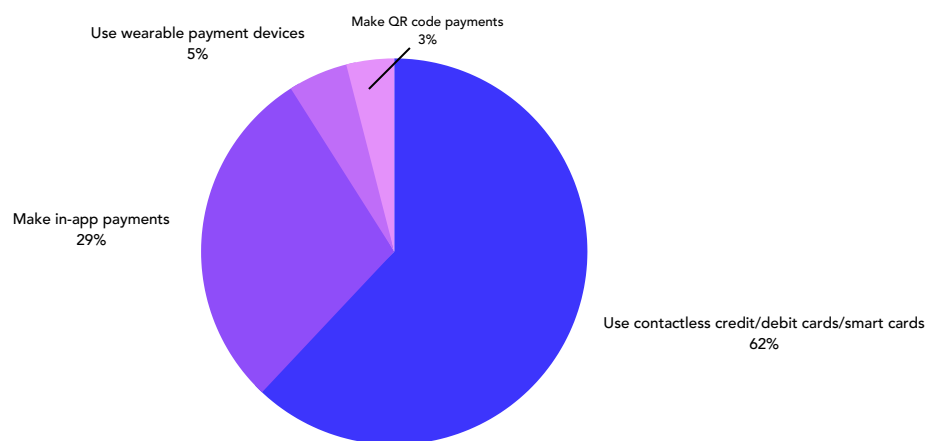


Chart 20: Contactless Payment Method - Distribution of Participants by Tools Used

Female participants are at the forefront of the tools used when making transactions with contactless payment. On the other hand, it is not known what job most of the participants who use credit/debit cards/smart cards and wearable payment devices do in contactless payment transactions. Most of the participants using the in-app payment method are full-time employees. Among the participants who make contactless payment transactions with QR code, there are full-time employees, those who are not working but looking for a job, and people whose employment status is not certain.

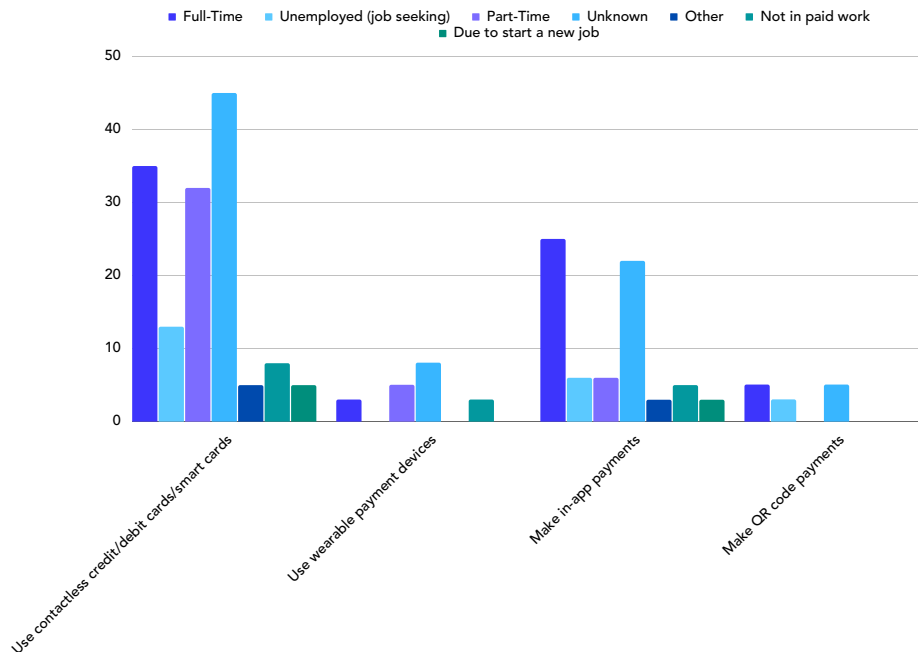


Chart 21: Contactless Payment Method - Tools Used by Participants - Distribution of Participants by Employment Status

In addition, when the participants using contactless payment methods are examined according to the tools they use, it is seen that the 25-34 age group is mostly in the foreground. Those who make payment with QR code are only between 18-24 and 25-34 age groups, and the 18-24 age group is at the forefront here.

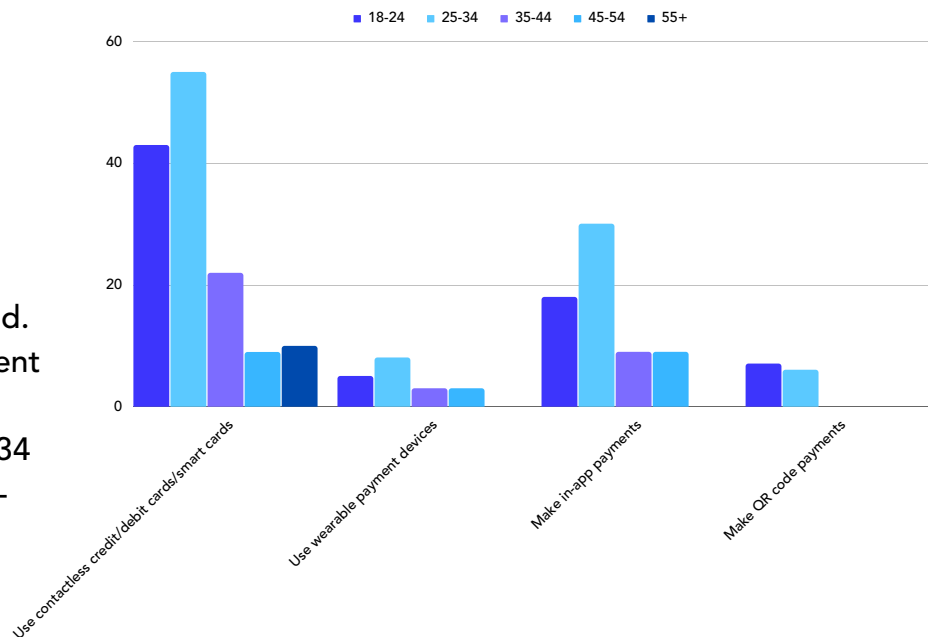


Chart 22: Contactless Payment Method - Tools Used by Participants - Distribution of Participants by Age

About half of the participants make their payments in shops/supermarkets/stores contactless. 32% of them make contactless payment transactions online. While 8% make contactless payments at restaurants/bars/cafes; 7% of people also use this method of public transportation. There is only 1 participant using this method at the ATM. Very few users make contactless payments at vending machines, gas stations and other fields. On the other hand, it is stated that this method is used in schools, taxis, and money transfers between friends.

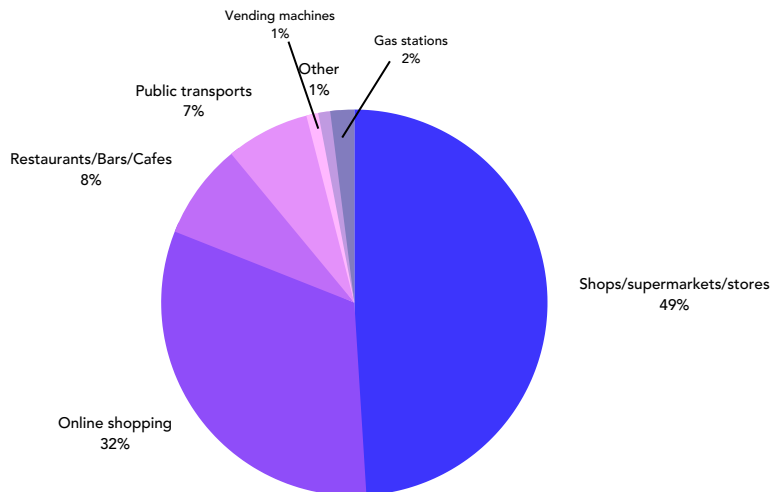


Chart 23: Contactless Payment Method - Distribution of Participants by Where They Use the Method

In shops/supermarkets/stores, online shopping and public transportation, women use contactless payment method more. The participant who uses this method at the ATM is male. The number of men and women using this method at gas stations and vending machines is equal. In other fields of use, the number of men using this method is higher.

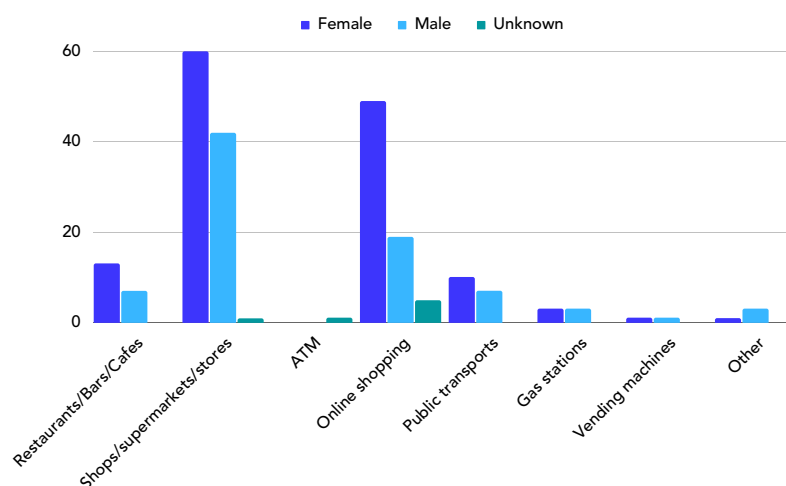


Chart 24: Contactless Payment Method - Where Participants Use the Method - Distribution of Participants by Gender

It is not clear what most respondents who make contactless payments in shops/supermarkets/stores, online shopping and public transport do. Full-time employees are at the forefront of the participants who use this method in restaurants/cafes/bars. There are only full-time employees who use the contactless payment method at vending machines. The working status of the participants using this method at gas stations is not certain; they either work part time or are unemployed and looking for a job.

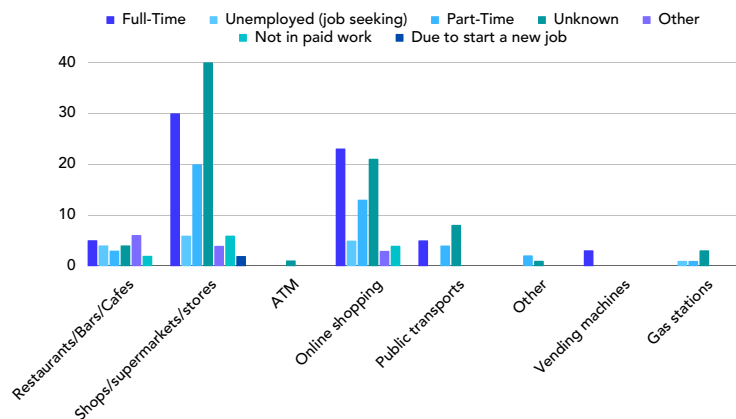


Chart 25: Contactless Payment Method - Where Participants Use the Method - Distribution of Participants by Employment Status

It was examined how often the participants used the contactless payment method. The rate of participants who use this method 1 to 2 times a week is 27.7%. The rate of participants who use contactless payment method daily and the rate of those who use it 1-3 times a month is equal to 24.8%. A portion of 15.8% makes contactless payment transactions 3 to 6 times a week. The rate of participants using this method 2 to 11 times a year is 6.9%. The user who does not know how often he/she uses the method or does not want to answer is only 1 person.



Chart 26: Contactless Payment Method - Distribution of Participants by Frequency of Use

The frequency of use of contactless payment varies according to the working status of the participants. The employment status of most of the participants who make contactless payment transactions daily and 2-11 times a year is unknown and most of them are these participants. Those who use this method 3-6 times a week, 1-2 times a month and 1-3 times a month, full-time employees are at the forefront.

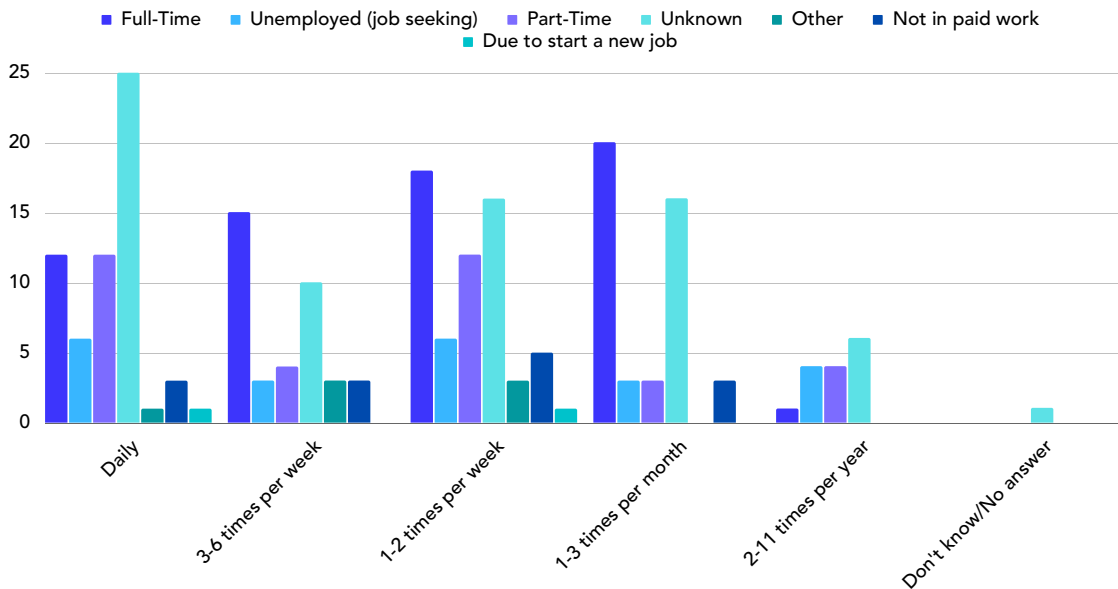


Chart 27: Contactless Payment Method - Frequency of Use of Participants - Distribution of Participants by Employment Status

The rate of participants who accept the contactless payment method as a suitable payment method is 68%. Although 16% are worried about the reliability of the contactless payment process, they say that they use this method. 15% of the participants state that the contactless payment method is more reliable than cash payment. About 1% of people do not find the contactless payment method reliable, stating that it is not a suitable payment method.

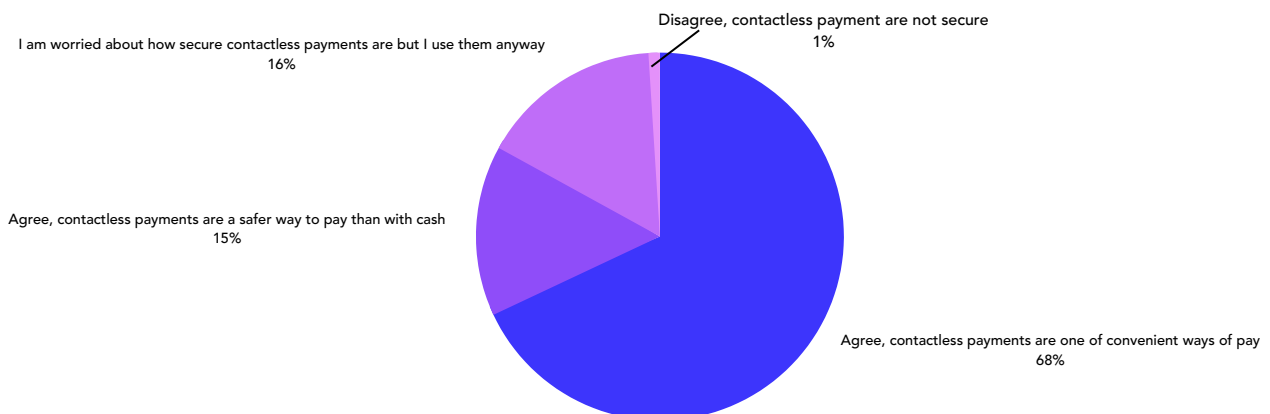


Chart 28: Contactless Payment Method - Distribution of Participants by Approval of the Method

Survey Results

Participant Profile:

Most of the participants reside in Israel and the average age is 30. Most participants are in the 25-34 age range. A minority of 4% is 55 years or older. Female participants outnumber male participants and most of them appear to be working full time or their employment status is unknown. The Hebrew language is the most widely spoken language.

Results on Cashless Payment Method:

Most participants who use the cashless payment method at least once in their life. Only 6% did not use a cashless payment method. 77% of those who use this method physically use a credit or debit card, 21% prefer online or mobile payment, while 2% make cashless payments with automatic payments and bank transfers. 1% pays by check.

The 25-34 age group mostly uses credit or debit cards physically. The 18-24 age group, on the other hand, makes cashless payments with online and mobile payment transactions. The 35-44 age range is higher among those who use direct debit and bank transfers compared to other age groups. There is only the 25-34 age group who can make cashless payments by check.

A portion of the participants whose employment status is unknown and full-time employees use more credit or debit cards, online and mobile payment methods. Only full-time employees use the check when making cashless payments.

More than half of the participants make cashless payments in general stores/shopping and restaurants/bars. Women use more cashless payment transactions than men. Full-time employees mostly use cashless payment method in general merchandise/shopping and dining/cafes. A segment whose working status is unknown uses this method mostly in grocery/convenience and bills/loans/rents/tax payments. Most of those who use this method at gas stations are part-time workers or people whose working status is unknown.

During the Covid-19 pandemic, there has been an increase in daily, monthly, and weekly use of this method. Daily and use 3-6 times a week are the indicators that show the highest increase. Participants using this method 1-2 times a year and little or no use decreased during the pandemic.

Convenience is seen among the most important reasons for adopting a cashless payment method. Participants in the 25-34 age group and female participants are at the forefront of each of the reasons for adopting the cashless payment method. Full-time, part-time employees and participants whose employment status is not known are more common than the others, who indicate convenience and easy tracking of expenditures among the reasons for their adoption.

On the other hand, the most important concern regarding the cashless payment method is security. Those who are concerned about the lack of technical knowledge are only in the 18-24 age group. Most of the respondents who are concerned about security and poor internet connection are full time workers.

92% of the participants think that cashless payment is more convenient than cash.

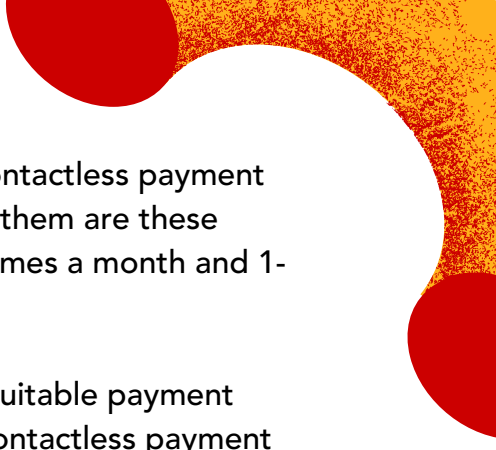
Results on Contactless Payment Method:

86% of the participants used the contactless payment method at least once in their lives. Users who do not use this method have stated the following reasons for not using it;

- Not knowing what contactless payment method is and how
- No opportunity to use this payment method
- Not seen as a safe method
- Not encountering any tool that supports the method
- The tools used in payments do not support the contactless payment method
- Choosing to pay by physical means
- Lack of interest
-

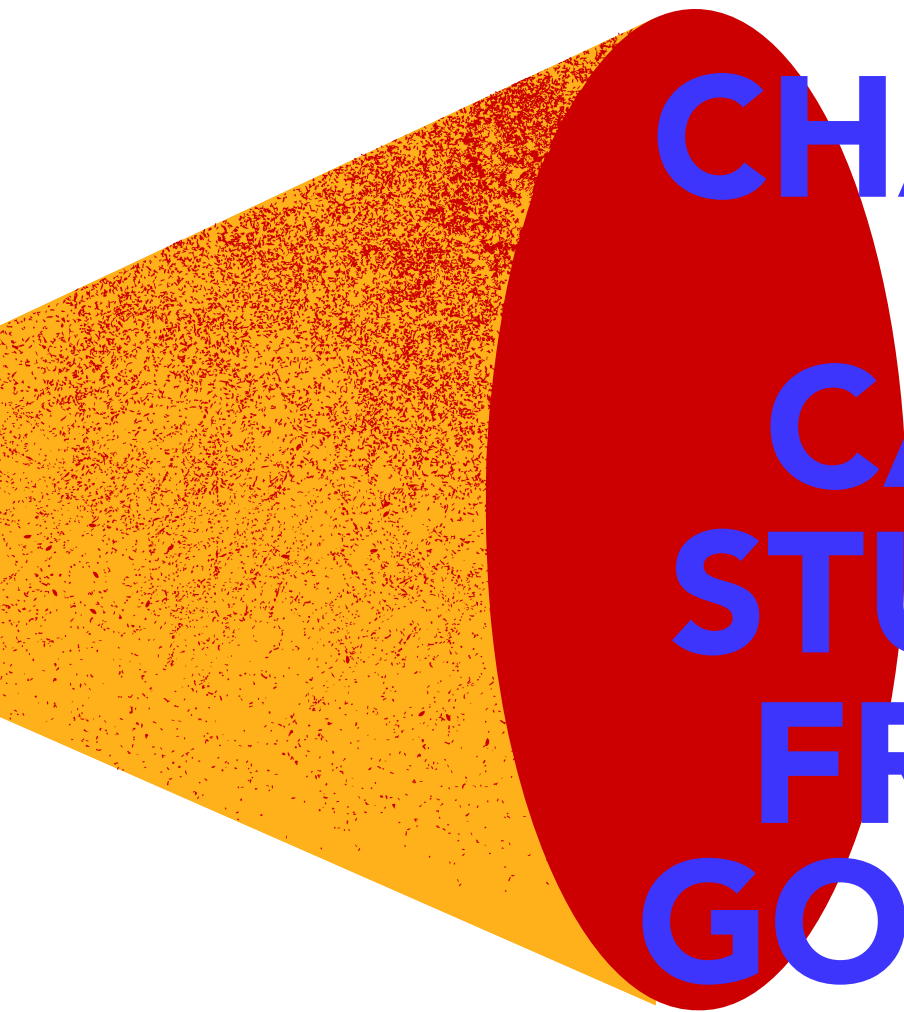
Participants who make contactless payments generally prefer credit/debit cards/smart cards. Most of the participants who use credit/debit cards/smart cards and wearable payment devices in these transactions are not known what they do. Among the participants who make contactless payment transactions with QR code, there are full-time employees, those who are not working but looking for a job, and people whose employment status is not certain. In addition, those who make payments with QR codes are only between the ages of 18-24 and 25-34.

Most of the participants make their contactless payments in shops/supermarkets/stores and online shopping. While 8% make contactless payments at restaurants/bars/cafes, 7% use this method of public transportation. Full-time employees are at the forefront of the participants who use this method in restaurants/cafes/bars. There are only full-time employees who use the contactless payment method at vending machines.



The employment status of most of the participants who make contactless payment transactions daily and 2-11 times a year is unknown and most of them are these participants. Those who use this method 3-6 times a week, 1-2 times a month and 1-3 times a month, full-time employees are at the forefront.

Most participants accept the contactless payment method as a suitable payment method. Although 16% are worried about the reliability of the contactless payment process, they say that they use this method. 15% of the participants state that the contactless payment method is more reliable than cash payment.



CHAPTER 3 CASE STUDIES FROM GOOINN

Case Studies from GOOINN

Case 1: Akbank - Dissemination of Innovation Culture

Akbank is one of the biggest banks in Turkey, providing services in corporate and investment banking, commercial banking, SME banking, personal banking, private and international banking, payment systems and treasury transactions. In addition to its standard banking activities, the Bank also carries out insurance agency activities through its branches.[143]

Akbank signed an agreement with the European Bank for Reconstruction and Development (EBRD) in 2020 to provide a one-year maturity amounting to 75 million dollars in order to minimize the impact of the Covid-19 pandemic. It provides this financing for business capital loans to its corporate and micro segment customers. In addition, giving importance to women entrepreneurs, Akbank supports the financial activities of enterprises by providing special export support loans.[144]

What was the problem?

Akbank realized that it is not possible to carry out innovation studies from a single point. The company wanted to spread the innovation culture to all units, realizing that the contribution of employees is important so that all efforts related to innovation activities can progress with a sustainable and increasing momentum throughout the bank.

What was done?

GOOINN, together with Akbank LAB, Akbank's innovation center, designed a new entrepreneurship and innovation program by organizing the existing in-house entrepreneurship program that the company started in 2016. With this renewed and more comprehensive program, an ideal environment has been created for the emergence of innovative products and services. After the applications to the program and the team process, workshops were organized with 5 teams on problem and customer discovery, target customer experience, customer interviews on the field, business model, MVP, presentation techniques. (A higher resolution MVP study was conducted to test the problem-solving compatibility in the field in a more qualified way.)

What was the solution?

- There were 5 teams that participated in the intrapreneurship process.
- More than 300 field and insight interviews were conducted.
- Digital access was provided to approximately 100,000 people.

Case 2: Kredi Kayıt Bürosu (KKB) - Intrapreneurship and Innovation Program

Kredi Kayıt Bürosu is the institution that carries out the activities of the Banks Association of Turkey (TBB) Risk Center for banks, consumer finance companies, leasing, factoring and insurance companies, which was established in partnership with nine leading banks. It has nearly 200 members.[145]

What was the problem?

It is aimed to design new products that will create value in the field of finance by experiencing the Designer Thinking and Lean Startup methods of the company employees and to raise awareness throughout the institution.

What was done?

GOOINN has designed an intrapreneurship and innovation program that includes Design Thinking and Lean Startup methods. After the applications and the team selection process, 15-week workshops were held with four teams. Throughout the process, the methods of problem discovery, target audience identification with a persona point of view, learning field verification techniques, field interviews, data interpreting, idea development, business model design, preparing and presenting investor presentation in detail, and supporting them with mentorship throughout the process were applied.

What was the solution?

- There were 4 teams that participated in the intrapreneurship process.
- More than 100 field and insight interviews were conducted.
- Digital access was provided to approximately 15,000 people.

Case 3: Aksigorta - Launching New Business Ideas

Aksigorta is the insurance company under the partnership of Belgian insurer Ageas and Sabancı Holding. With its customer-oriented and innovative vision, Aksigorta serves its individual and business customers with 10 regional directorates, 664 employees, nearly 3000 independent agencies, 782 Akbank branches, 89 brokers and nearly 5750 contracted institutions.[146]

What was the problem?

Aksigorta has determined that it is important to be sustainable in the services it offers and that its innovative perspective makes a big difference in the activities that are done and will be done. For this reason, the company wanted to increase awareness of innovation, improve existing business processes, and uncover cross-selling opportunities and new business opportunities.

What was done?

GOOINN has designed a new 14-week entrepreneurship and innovation program. After the applications and the team selection process, five teams were determined. Throughout the process, workshops and presentations were held on problem and customer discovery, target customer experience, customer interviews in the field, business model, MVP testing, presentation techniques.

What was the solution?

- New focus areas have been identified and particular emphasis has been placed on sustainability activities. By organizing the determination of insurance premiums with a focus on sustainability, a new business model was created.
- A special insurance business model has been developed that focuses on diabetes patients, which includes additional services, and designs insurance policies together with patients.
- A new insurance model has been created for insurance purchases made with e-commerce.
- A new model has been developed, in which insurance policies are created according to the needs, and that provides assistance from experienced people whose expertise has been approved.
- A new model has been created that gives points to customers in each new policy and policy activities and enables them to use the insurance product they want with the points they have earned.

Case 4: ING Turkey - Launching New Business Ideas

ING Group is a Netherlands-based multinational banking company. It provides services in areas such as insurance, commercial banking, investment banking and portfolio management. It has branches in 40 countries around the world and has more than 53 thousand employees.

What was the problem?

The company wanted to redesign new or existing services/products according to user needs, shorten the time to market for verified solutions, integrate ING's unique PACE methodology into its corporate culture, and establish a sustainable innovation structure that can turn its own wheels by training internal coaches.

What was done?

Within the scope of the ING PACE methodology, GOOINN has planned one-to-one workshops with special processes, tools and contents designed to add functionality to each of the Design Thinking, Lean Startup and Scrum methods. Multidisciplinary teams carried out metric-based structured workshops and field studies based on dedicated, learning-by-doing, in weekly detailed planned time periods. The solution sets developed in response to the needs verified in the field were put into repetitive trial and testing processes, ensuring that each part of the business model was validated on real customers.

In addition, GOOINN provided end-to-end department/channel specific solution validation experience that enabled to receive the necessary internal investment for the real product/service and business models to be included in the company project calendar by presenting the process outputs to the senior management, and provided 10 in-house innovations lasting 1.5 years in total, consisting of 3 in-house accelerator rounds in order to adopt the innovation competence in every unit of the institution.

It aimed for the development of the embassy competencies of the members who take part in the teams in each cycle with the role of team leadership in the following periods, and thus the dissemination of sustainable method ownership that extends to the capillaries within the institution.

What was the solution?

A total of 15 teams participated in 3 intrapreneur innovation tours.

10 products/services that went live, such as INGo, Digital SME, My Infinite Loan were developed.

More than 3,000 field and insight interviews were conducted.

Digital access was provided to approximately 75,000 people.

More than 100 innovation volunteers have emerged at ING, who ensure that innovation processes progress in a learning, developing, living and sustainable structure.

Lists

List of Abbreviations

| | |
|------|---|
| AR | Augmented Reality |
| BNPL | Buy Now Pay Later |
| CBB | Central Bank of Bahrain |
| CBI | Central Bank of Iraq |
| CBO | The Central Bank of Oman |
| CBY | The Central Bank of Yemen |
| DeFi | Decentralized Finance Platform |
| EMI | Equal Monthly Installments |
| IoT | Internet of Things |
| KKB | Credit Registry Office |
| MENA | Middle East and North Africa |
| NFC | Near-Field Communication |
| NFT | Non-Fungible Token |
| OCR | Optical Character Recognition |
| OIC | The Organization of Islamic Cooperation |
| QDB | Qatar Development Bank |
| QFTH | Qatar Fintech Hub |
| RFID | Radio Frequency Identification |
| RPA | Robotic Process Automation |
| PaaS | Platform as a Service |

List of Abbreviations

PMA Palestine Monetary Authority

SAMA Saudi Arabian Monetary Authority

SME Small and Medium Sized Enterprises

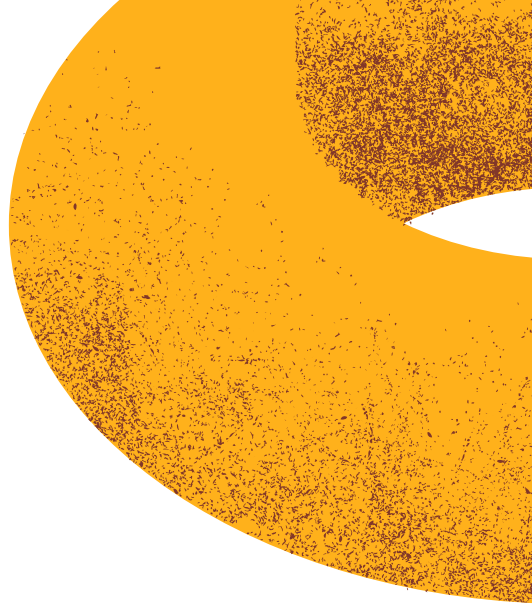
TCB The Tunisia Central Bank

TBB The Banks Association of Turkey

UAE United Arab Emirates

VC Venture Capital

VR Virtual Reality



List of Charts

Chart 1: Distribution of Participants by Age

Chart 2: Distribution of Participants by Gender

Chart 3: Distribution of the Participants According to Their Working Status

Chart 4: Distribution of the Participants According to the Languages They Speak

Chart 5: Cashless Payment Method- Distribution of Participants by Use

Chart 6: Cashless Payment Method- Distribution of Participants by the Means They Use

Chart 7: Cashless Payment Method - Distribution of Tools Used by Participants by Gender

Chart 8: Cashless Payment Method - Distribution of Tools Used by Participants by Age Groups

Chart 9: Cashless Payment Method - Distribution of Tools Used by Participants by Working Status

Chart 10: Cashless Payment Method - Distribution of Participants by the Places Where They Use the Method

Chart 11: Cashless Payment Method - Distribution of Participants by Employment Status of the Places They Use the Method

Chart 12: Cashless Payment Method - Distribution of Participants by Frequency of Use Before the Covid 19 Pandemic

Chart 13: Cashless Payment Method - Distribution of Participants by Frequency of Use During the Covid 19 Pandemic

Chart 14: Cashless Payment Method - Distribution of Participants by Reasons for Adopting the Method

Chart 15: Cashless Payment Method - Distribution of Participants' Reasons for Adopting the Method by Employment Status



List of Charts

Chart 16: Cashless Payment Method - Distribution of Participants by Concerns about the Method

Chart 17: Cashless Payment Method - Distribution of Participants' Concerns about the Method by Employment Status

Chart 18: Cashless Payment Method - Distribution of Participants by Approval of the Method

Chart 19: Contactless Payment Method - Distribution of Participants by Usage

Chart 20: Contactless Payment Method - Distribution of Participants by Tools Used

Chart 21: Contactless Payment Method - Tools Used by Participants - Distribution of Participants by Employment Status

Chart 22: Contactless Payment Method - Tools Used by Participants - Distribution of Participants by Age

Chart 23: Contactless Payment Method - Distribution of Participants by Where They Use the Method

Chart 24: Contactless Payment Method - Where Participants Use the Method - Distribution of Participants by Gender

Chart 25: Contactless Payment Method - Where Participants Use the Method - Distribution of Participants by Employment Status

Chart 26: Contactless Payment Method - Distribution of Participants by Frequency of Use

Chart 27: Contactless Payment Method - Frequency of Use of Participants - Distribution of Participants by Employment Status

Chart 28: Contactless Payment Method - Distribution of Participants by Approval of the Method

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