IN ASSOCIATION WITH BKM INTERBANK CARD CENTER 25 YEARS & Edgar, Dunn & Company Management Consultants

Turkey - Advanced Payments Report

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Contents

EDC TURKEY REPORT

A Vision For The Future

Turkey's pivotal position at the crossroads of Europe and Asia and at the confluence of great civilisations is well known. The country has a rich and proud past but its young, mainly urban population, nearly half of which is under 30, is dynamic and forward looking.

The country's location straddling two continents is more than an interesting fact from the guidebooks. With access to 1.5 billion customers in Europe, Eurasia, the Middle East and North Africa, Turkey has access to markets with a combined GDP of $25 trillion, all within 4 hours of flying distance.

As part of the G20, the body of the world's leading developed and emerging economic powers, Turkey's growing economy at home is also being matched by growing influence beyond her borders.

Collectively the G20 countries represent around 80% of world trade and as part of the country's presidency of the group in 2015, Turkey announced that its priorities during its presidency will include an emphasis on driving financial inclusion at domestic and international levels.

Defining innovation

Turkey's banking market often defies expectations. Slick video kiosks in place of traditional teller counters, credit automation kiosks that can scan ID documents and print loan contracts, iBeacons monitoring footfall in branches, mobile banking apps integrated with Facebook, and loan applications via Twitter. This may sound like the futuristic vision of an ambitious digital bank.

Except that in modern Turkey there is nothing futuristic about this. It's business as usual. A young, increasingly

well-educated, population has created a banking market often defined by large institutions that have openly embraced emerging technologies to gain competitive advantage by delivering innovative services ahead of their competitors.

In most developed markets, mainstream banking incumbents are categorised separately from their challenger or "digital" banks, which are characterised as being more innovative and making greater use of technology for service delivery. In Turkey by contrast this distinction is rather more difficult to make. Banks have long focused on digitisation and are eager to exploit new technologies to gain competitive advantage even if, and sometimes with the specific goal of, causing disruption in the market.

This appetite for disruption is underscored by Yalcin Sezen, Deputy CEO at Isbank.

"The question is: are we going to be the disruptor or not? If you choose to wait and see, your business may be disrupted. This is the age of digitalisation, which is reshaping our lives. It has an impact on the banking industry as well. Barriers to entry are dissolving. Many entities are vying to be payment facilitators both technologically and legally in today's world. We have to get ready for new challenges."

In a sign of the ready acceptance of electronic means of payment, credit and debit card issuance has increased significantly over the last decade. The number of credit cards has doubled over the last 10 years and debit cards have grown by an even greater margin. Briefly at the height of the global financial crisis (that left Turkey unscathed thanks to the legacy of tighter regulation following a local banking crisis in 2002) Turkey overtook the UK as Visa Europe's largest card market.

Reward and loyalty schemes have been a defining feature of the Turkish card market and the key to success in driving acceptance and retaining card customers throughout the last decade. In part a response to the need to find an affordable means of getting customers to spend again after a bruising financial crisis at the beginning of the century, credit card programmes provide a wide range of rewards and incentives in return for card use, as well as the option for customers to spread the cost of purchases over several months through instalment payments.

With the precedent set for card payments at point of sale, digital commerce is also now growing rapidly and the payments sector is once again preparing to adapt to provide the necessary tools and payment instruments to facilitate secure and convenient digital payments. A buoyant forward-looking market with educated young consumers is always attractive to investors looking to invest in digital commerce businesses. Several international companies such as SK Group, eBay, Delivery Hero and Naspers have already made investments or entered into partnerships in Turkey confirming their confidence in the market and its growth potential.

BKM as a common platform for innovation

BKM - Turkey's domestic interbank switch & clearing agency owned by a consortium of Turkish banks – has played a key role in the development of payment systems and fostering of innovation in Turkey. In existence for a quarter of a century, BKM is helping Turkey steady growth in electronic payments within an ultimate objective to reach a cashless future.
Its CEO, Dr. Soner Canko, who has overseen much of this innovation, says, ***"BKM is not only aiming to improve the card payment system infrastructure for the benefit of all member banks at minimum cost but also managing all the stakeholders involved in card payments such as regulatory bodies, member banks, cardholders, etc. Its mission is to foster innovation and drive growth by providing innovative products and services on a continuous basis. BKM will continue to be a service & product innovation centre of excellence, working as a platform between regulators & banks offering centralised & localised infrastructure to its members."***

The World of Cards

In recent years the payments landscape in Turkey has seen significant investment in new technologies and payment services. Turkish banks, mobile operators and retailers, among others, have demonstrated a keen interest in emerging payment technologies.

At the time when opportunities for mobile contactless payments were only being studied in other parts Europe, banks in Turkey had already launched pilot programmes. An established culture of innovation has meant that unlike the challenges encountered in many markets around the world, banks and mobile operators were able to work together to offer SIM-based mobile proximity payment solutions - a trend that has shifted now to cloud based payments as smartphone penetration has grown.

The first credit card issued by a bank with an instalment lending feature in various different retailers for domestic transactions was launched by Yapi Kredi Bank in 1998. Other local innovations have included a digital wallet designed to facilitate secure online and mobile commerce and virtual cards that offer an extra layer of security to customers who wish to use their credit cards online but do not wish to disclose their card details.

Credit cards

Between 2010 and 2014 the Turkish credit card market grew at a CAGR of 5.5% with the number of credit cards in circulation nearly doubling over the last 10 years.

Hasan Unal, Deputy General Manager of Halkbank, explains, ***"The starting point for the adoption of credit cards was to replace cheque based store credits offered to consumers as free instalments. The innovation of the free instalment on the card brought increased volume and profitability to the banks, driving investment into the payment systems".*** The transformation of merchant-finance to bank-finance decreased the operational cost of merchants significantly. In addition, the collection risk moved to banks.

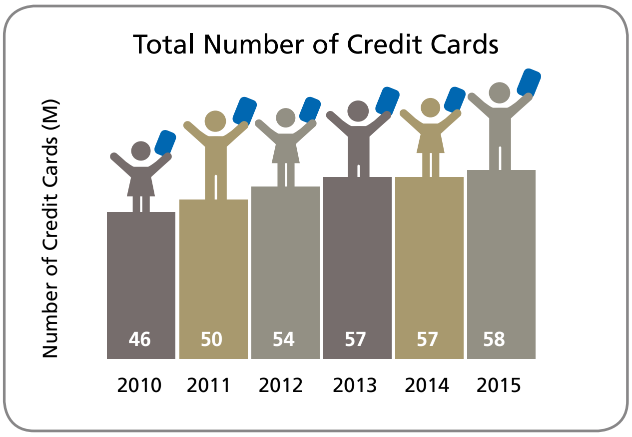
The first credit card with an instalment lending feature was launched by Yapi Kredi Bank in 1998. Within a few years, most major issuers offered instalment loans to their credit card customers resulting in significant growth in the market.

The overall growth in credit cards has been driven by a number of factors, including expansion of the payments acceptance infrastructure - such as at Point of Sale (POS) and Automated Teller machine (ATM) terminal networks - deployment of innovative card features including instalment lending, loyalty programmes alongside promotional and reward strategies.

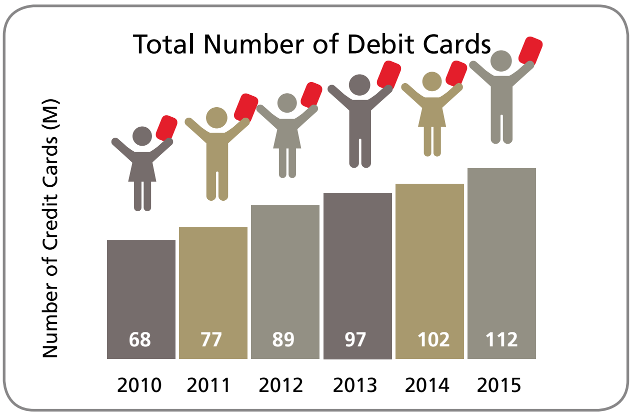
Credit cards are primarily used by consumers for retail POS purchases rather than cash withdrawals from ATMs, with POS transactions accounting for over 90% of the value of transactions.

Online payments are also on the rise. An increase in e-commerce merchants, shifting demographics, the popularity of social media and an increasingly affluent middle class with rising disposable incomes have all contributed to drive transaction volumes and values.

The success of instalment and reward programs in Turkey has been such that, in contrast to many markets in Europe where credit cards are not the preferred payment method, especially for online commerce, credit cards remain the most popular method, accounting for between 85 and 90



(Source: BKM data; data points up to September for 2015)



(Source: BKM data; data points up to September for 2015)

percent of all transactions. With its young, technology-savvy population, Turkey's e-commerce marketplace is among the fastest growing in the world, which in turn is further driving the growth in credit card use.

Debit cards

In contrast to markets like Germany, widespread daily use of credit cards has been a defining feature of the Turkish market for much of the last decade. 10 years ago less than 3% of the total purchase transactions were made with debit cards, whereas today it has reached almost 25%.

Rising incomes and economic stability in recent years however has started to turn the tide in debit card use. In line with most European banking markets, debit cards are issued in conjunction with a bank account and were primarily used for cash withdrawal, serving as a cost-efficient alternative for branch-based cash withdrawals. There are signs however that this is changing with debit cards increasingly being used to make purchases. In 2010 transactions for purchase of goods or services accounted for only 25% of all debit transactions. The share of purchase transactions as a percentage of all debit card transactions has now nearly doubled to 47%.

While POS debit transactions have grown, the average purchase made using a debit card in Turkey amounted to around $16 in 2015, lower than the average credit card transaction. Average ATM withdrawal transaction values tend to be higher, although as shopping with debit cards increases it appears that the average ATM transaction value is falling - dropping from an average of $205 in 2010 to $150 in 2015.

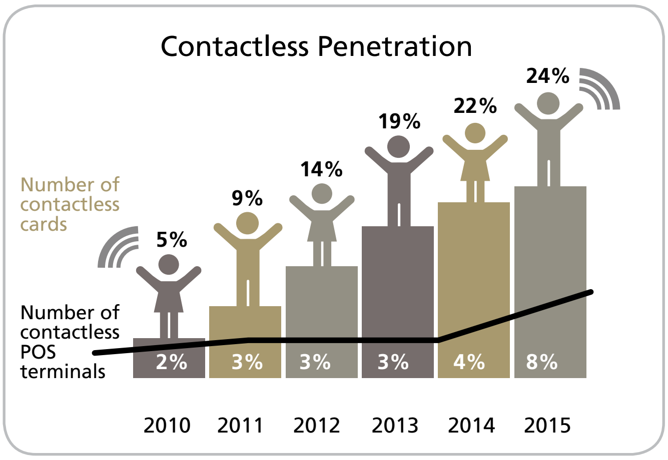
Contactless cards

Contactless card payments were launched with the issuing of the first chip and PIN based contactless cards by Garanti Bank in 2004: Bonus Trink. Today, contactless acceptance network is nearing 200,000 POS terminals, representing 8% of the 2.5 million terminals in the country and growing. This proportion is still comparatively small considering that around 24% of credit cards in Turkey are contactless enabled. When considering all cards however only 12% are contactless enabled.

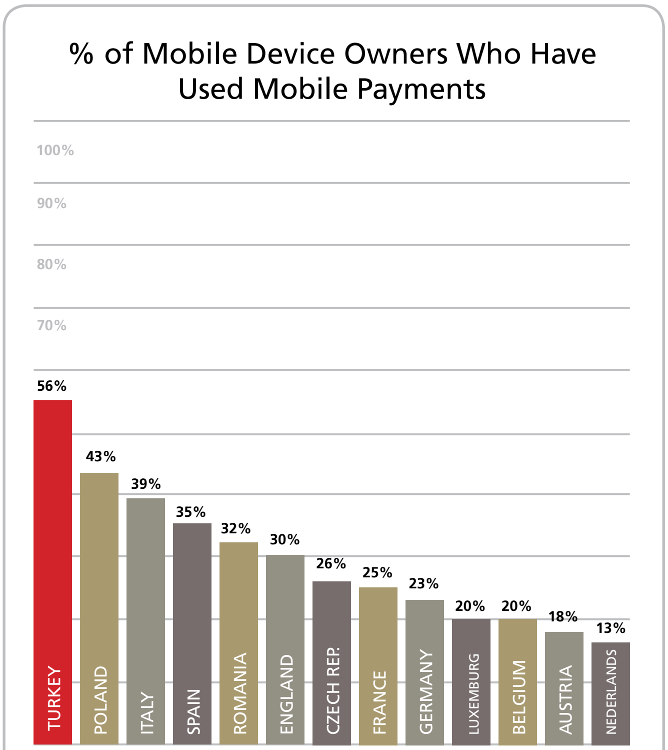
Turkey was one of the first countries to go chip and PIN along with France and the United Kingdom. All of Turkey's POS and ATM terminals as well as credit cards issued in the country are chip and PIN enabled ensuring the right infrastructure environment for transition to contactless.

Transition to contactless is gradual as consumer awareness; understanding of the benefits, and retailer deployment as well as technical integration takes time. As contactless acceptance at the point of sale grows however, it is anticipated that consumers will drive the growth in contactless payments as the advantages of contactless cards - including speed, simplicity, and convenience - win them over.

There is also the potential for contactless payments to shift from one form factor to another as multiple options become available such as mobile devices and smart watches. According to The ING International Survey on Mobile Banking, New Technologies and Financial Behaviour (2015) 56% of consumers in Turkey who own a mobile device have used a mobile payment application. With these relatively high adoption rates it seems safe to assume that consumers are likely to embrace mobile payments when they become widely available. Banks in Turkey appear well aware of the significance of contactless. Osman Tanacan, Group President of Ziraat, believes that ***"all the banks and players within the payment ecosystem must work together to grow contactless, as future payments will depend on this technology and we have BKM as a common platform to do so"***. Hasan Unal, Deputy General Manager of Halkbank, fully agrees, ***"We did this in chip and PIN migration 10***



(Source: BKM data; data points up to September for 2015)



(Source: The ING International Survey on Mobile Banking, New Technologies and Financial Behaviour, 2015)

years ago. Why don't we do the same in contactless technology?"

Credit card lending

Consumer familiarity with credit cards has meant that cards are often the preferred means of meeting credit needs of Turkish consumers and play a valuable role in domestic financial management, either through revolving credit balances or by making instalment purchases with their cards.

When used responsibly credit card borrowing can be an effective tool for consumers to plan their spending. Specifically to Turkey, instalment payments, offered by the majority of local card programmes support customers unable to afford the everyday essentials of modern urban life, such as home appliances. They can pay for these using monthly payment plans that help ease the burden on household budgets. Kerim Tatlici from Migros, one of the largest supermarket chains in Turkey, says, ***"Credit cards are simply more popular than debit cards at our stores as customers prefer having at least 1 month financing on purchases, in addition there is the added benefit of the rewards programmes".***

In 2013 the Turkish regulator BDDK instituted new regulations against credit card instalment lending in a bid to contain growing levels of consumer indebtedness which had doubled between 2010 and 2013. Credit card receivables had increased from $21.5 billion at the start of 2009 to over $47 billion at the end of 2013. The trend reversed in part as a result of the change in regulation. By July 2015 credit card outstandings had dropped to $30.8 billion. However, this data – converted to US dollars for international comparisons – can be misleading due to the significant devaluation of the Turkish Lira over the last two years.

The measure also sought to contain the current account deficit by attempting to decrease consumer spending. Several strategies were implemented to achieve this, including banning instalment lending on imported items such as telecommunication devices, limiting the number of instalments and placing a cap on consumer and car loans.

Recently, however, realising that "Instead of using credit cards, customers are becoming indebted in different ways," such as cheques, IOUs and store credit, the regulator has indicated that some of the restrictions on credit cards will be re-evaluated to determine an optimum structure.

Credit card loyalty and rewards

Rewards have proven popular across a wide array of consumer segments. The credit card industry along with other industries such as retail and travel find loyalty programmes useful both for winning and retaining customers.

In a recent survey of the Turkish loyalty sector by Ketchup Loyalty Marketing Agency, grocery stores were "by far the most popular among consumers", with 70% of those surveyed saying they were enrolled in such a programme and 28% saying they "can't give up" their membership. Bank driven loyalty programmes are also well marketed resulting in 79% of those surveyed being aware of the programmes, but only 46% were enrolled in a bank loyalty programme and only 15% indicated that they "would not give up" the programme if asked. This indicates there is still room for improvement.

In a pioneering initiative, Garanti, one of Turkey's largest banks, introduced the multi-retailer alliance Bonus programme in 2000. Mehmet Sezgin, currently Head of Global Payment Systems at Spanish Bank BBVA and founder of the Bonus programme, says ***"Bonus proved remarkably*** *popular and has gone from strength to strength in the decade and a half since launch. Today the Bonus Platform includes 10 different banks of Turkey. The programme includes unique features catering to local tastes and interests and provides flexible options."*

Banks have entered into partnerships with other entities to reward customers. Garanti has a partnership with the Miles&Smiles programme of Turkish Airlines whereas ING partners with Pegasus, Turkey's second largest airline. Yapi Kredi's Adios, Halkbank Parafly, Akbank's Wings and Is Bank's Maximiles give the opportunity to get free airline tickets with the rewards gained from purchases. Vakıfbank's Rail&Miles has a loyalty programme in railways, whereas Denizbank's Sea&Miles programme collaborates with IDO, the entity that operates the Istanbul ferries. TEB's Total card offers advantages in fuel purchases in cooperation with Total. Is Bank's Maximum card has a loyalty programme focused on cinemas.

New era for Turkish Payments – troy

In September 2015, BKM announced the launch of a national payment scheme for 2016. The brand name of "Turkey's Payment Method" is TROY; the acronym of Turkish words for Turkey (TR), Payment (O) and Method (Y). TROY is a culmination of 25 years of experience in electronic payments in Turkey with all Turkish banks set to be involved.

TROY will provide Turkey with greater control of its payments agenda, empowering stakeholders to focus on Turkish priorities and help drive future growth in electronic payments. TROY also promises to provide significant savings for banks. Soner Canko, CEO of BKM explains: ***"There are many local alternative payment methods around the world that successfully serve their home markets. When we evaluated these examples and the requirements of Turkish banks, we concluded that a local solution will bring independence and economies required to innovate in the fast moving, competitive payments market of our country. The time has come to start a new era with the deep knowhow and technology of the sector".***

troy®


BANK

Direction -> Digital

Turkey boasts a young population – the median age is 30 (in comparison, the median age in the United States is 38) – keen to use the latest technology and digitally friendly (the country ranks among the world's most active social media markets – see social media section below). Rates of mobile phone penetration are also high and consumers regularly use their phones for accessing online content and connecting with their bank or financial services providers. This, in combination with improving logistics infrastructure and transport network, is paving the way for high levels of growth in digital commerce.

Ecommerce News reports that e-commerce volumes in Turkey grew by 35% in 2014. This growth is expected to continue.

e-commerce is moving fast with large players entering the market in the past three years, marking a change from being an entrepreneur-dominated space to a competitive multi-player landscape. Large retailers with expertise and technical know-how gained from years of experience in physical world merchandising, have started to invest online and have now begun to shape the industry so much so that most of the online commerce volume today is generated by large retailers. Some have been so successful that they have decided to use the reach of the Internet to target potential customers in Europe and the Middle East.

The country's innovative tradition is also being put to good use here too, with retailers already experimenting with the use of beacons to help drive the convergence between online and offline channels.

Reviewing the online purchase data in Turkey, travel-related services top the board (over $6 billion in 2014-15). Airlines formed a significant part of this at 54%. Travel in general and payments for airline tickets in particular are growing. Turkish Airlines Online Sales

Digital marketplaces

“Surfing new heights: Turkey’s rising e-commerce starts”

Two of the most popular online marketplaces in Turkey are gittigidiyor.com and n11.com. Gittigidiyor.com (the name is the Turkish for the auction room cry “going, going, gone,”) launched in 2001, was bought by eBay in 2011 and has 7.6m members. The company has seen exponential growth - recent results show that their desktop audience was 52% higher (Q2 2015) compared to the same period last year and with mobile customers more than doubling.

The site sells something every two seconds and its mobile app has been downloaded more than 2.6 million times, making it the 14th most visited marketplace in Europe. It aims to respond to what its customers want and has introduced an “instant buy” button on its Instagram account.

The other key player n11.com is the result of a successful collaboration between South Korean SK Group and Turkish Doğuş Group, which formed a 50-50 joint venture company called Doğuş Planet. Loosely based on the marketplace style of Amazon the online store connects a wide range of shops and brands with millions of buyers and now offers consumers a selection of around 30,000 stores with 26 million products and 137 million visitors per month. Tolga Kocakalay, CFO at n11 explains the importance of the checkout process for n11: “the whole process must be as smooth as drinking a coffee at the nearest coffee shop, so much so that the consumer is willing to share the experience through every social platform and by word of mouth. In today’s world, providing a unique shopping experience is invaluable”.

n11.com predicts that the online marketplace segment will “continue to grow and [the] mobile market will explode”. Currently, mobile accounts for 50% of its traffic, but only 30% of sales. Kocakalay continues, “As customer behaviour changes and consumers shift devices the online platforms need to adapt”. In a bid to achieve its ambitions, the company is planning to launch a range of innovations to improve the user experience including image search, credit card scanning and bargaining, as well as one-click payments on mobile devices.

& Marketing Manager Cengiz Degirmenci emphasises importance of payment options regarding online business for airlines. ***"A new payment solution should offer innovation, convenience and wide range of global coverage. Mobile will have a huge impact on innovation in payments, but the winner won't be a mobile enablement of current payment method but rather a new mobile payment method which successfully positions itself as a core part of customer' daily mobile experience."***

Online payments for hotel and accommodation are also growing but form a much smaller proportion of the total travel payments volume.

General services represent the second most significant category for online commerce payments at nearly $4 billion during the same period, mainly due to the e-government transformation, which includes online tax & other governmental payments.

Electronics occupied third place at just over $3 billion. Other categories in the list included telecoms, furniture, healthcare, and jewellery.

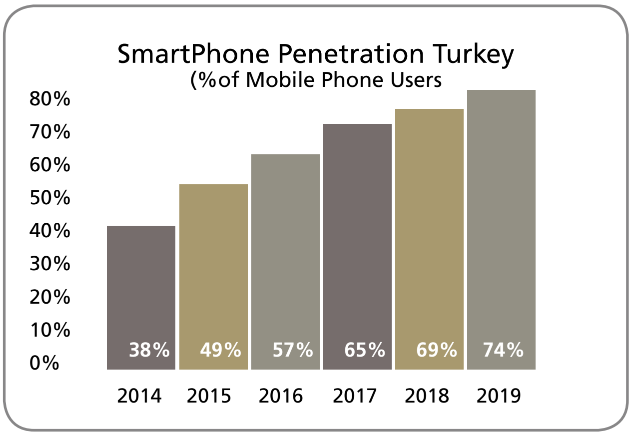
Steady growth

According to a 2014 report conducted by PayPal and Ipsos MORI, the estimated growth rate for mobile commerce in Turkey was 39%, while CAGR for online commerce was 17%, outpacing more mature markets such as the United States, Canada, and the United Kingdom with higher rates of online commerce growth than all markets except India, China, and Mexico. However, there is potential to grow further and faster given the recent positive changes in the market, such as the adoption of a new law on the Regulation of Electronic Commerce, developments in technology, and increased take up of broadband Internet. ***"Digital commerce in Turkey remains dominated by credit cards"*** says Emre Guzer, CEO of PayU, the first PSP in the Turkish market, ***"one way to drive e-commerce growth is to increase the number of online payment methods, like payment at the door for e-commerce purchases or ACH/real-time payment systems as well as bringing other successful models into Turkey such as Klarna (a popular 'Buy now, Pay Later' online payment provider in Europe that bears the risk of default and fraud). New methods will increase the number of customers for e-commerce purchases".***

Mobile devices are likely to drive growth in digital commerce. Despite the fact that online commerce still represents a relatively small proportion of total retail sales, 53% of online shoppers surveyed in the report have made purchases via a mobile phone. This reflects the high use of mobile Internet and the early adopter nature of the population – among G20 economies, only China scores better at 68%. Turkey's recent auction of 4G mobile phone frequencies, which attracted bids worth nearly $4.5 billion highlighting the growing importance of mobile broadband, is likely to help drive mobile commerce growth.

The Future is Mobile

From a global perspective, it has been an eventful year for mobile payments. After years of hype and relatively little progress in the space three major international companies made significant inroads to stake their claims for global leadership. Apple Pay launched at the end of 2014, followed in hot pursuit by Samsung Pay and Android Pay in 2015. While these services are currently only live in the U.S., UK and South Korea, their plans for global roll-out are likely to include Turkey near the top of the list.



Source: eMarketer, 2015

Ready for mobile

In part because of already high levels of smartphone penetration in Turkey – close to 50% of the population in 2015 and rising to 74% by 2019 – but also because of high levels of payment card ownership. Among European cardholders, the average number of credit cards per head of population is second only to the UK. At the same time the familiarity of Turkish consumers with mobile banking, apps, and payment solutions – as discussed earlier, 56% of smartphone users in the ING survey Turkey had used a mobile payment app, significantly higher than either France (25%) or Germany (23%), making the country a fertile test-bed for use and adoption of new mobile payment products. Erkin Aydin, Executive Vice President of Finansbank, believes ***"The adoption rate of smart phones, especially by the mid-to-high income group, is the biggest opportunity in payment system innovation".***

Focus on innovation

Banks in the U.S and Europe have arguably been slow to react to the digital and mobile revolution in financial services, leading to the rise of a number of challenger banks offering banking solutions centred on the smartphone as the primary delivery channel. High profile examples of these include Simple (recently bought by Spanish bank BBVA) and Moven which have sought to spearhead a digital banking revolution in the U.S, and companies including Fidor, Atom and Starling are now looking to do the same in Europe.

This approach differs markedly from Turkey's own retail banking marketplace, where customer use of retail branches remains high and where the largest banks have effectively managed to deliver digital services that meet consumer expectations. Erkin Aydin describes the workforce at Finansbank as ***"young, educated and highly enthusiastic, employees can easily share ideas via the 'proposal system' with top management and be visibly appreciated through this system".*** This approach seems to be paying off for the sector, the country has the highest number of mobile banking users at 65% of all consumers with a smartphone (see chart), a function of strong competition between banking providers that prizes innovation coupled with consumer appetite for new payment and banking solutions.

According to Garanti, one of the largest banks of Turkey, 80% of all the bank's consumer transactions take place online by tablet, PC or smartphone.. In 2013 it launched the iGaranti iPhone app targeted at young professionals. The app, - in effect a new digital bank - is composed of over 20 mini-apps and was designed to support the user's financial activities. Innovative features include a money transfer capability via social media (no bank details required), customised offers through geo-location technology, a money manager to assist with cash flow forecasting and card-less ATM withdrawals. The bank has over 3 times more ATMs than branches to help extend its reach to a greater number of customers. With more than half a million downloads since its launch the full banking suite offered by the app has been a success in building the banks digital customer base.

The idea of digital only banking was first conceived by Finansbank's Enpara in Turkey, followed by most of the large banks. It offered a lean form of banking without branches,

utilising alternative delivery channels such as Internet banking, mobile phones, telephone and ATMs. This approach lowered personnel expenses and enabled the banks to offer higher interest rates for deposits and lower interest rates for loans, as well as lower commissions for transactions.

The Akbank Direct Mobile App is another intricately developed banking app designed to help customers easily manage their finances. The app supports iBeacon technology, a technology introduced by Apple that uses the Bluetooth Low Energy (BLE) protocol and Geo-fencing techniques to facilitate a number of innovative features linked to the customer's location. One notable example is the ability for a customer with the app to withdraw cash from an ATM by simply pressing "1" on the keypad when the app and the ATM are within close proximity. Akbank Direct has received international recognition of its success winning several awards on the global stage. Arif İsfendiyaroğlu, EVP of Akbank, summarised the approach to innovation at Akbank: ***"With the essential support of the IT team, we are very well equipped in terms of innovation. All innovations for the sake of 'replacing cash with electronic payments' are very welcome from our side. As people start using mobile as the tool for payment, we will be able to grow the 'recorded economy'. The main target has always been to replace cash with electronic payments. A new era is starting today. Contactless card acceptance was a major milestone in terms of changing the customer behaviour. The 'wallets' were the second step for merging mobile phones with payment capabilities. As smart phone usage increases, 'total financial management' will be very convenient for customers and 'mobile payments' will be the most important part of it".***

New banking competition is most likely to come from existing institutions. An example of this came in July 2015 when BNP Paribas subsidiary, TEB launched a "digital only" banking solution called CEPTETEB (Turkish for 'TEB in your pocket"). The solution offers P2P payments, card-less ATM cash withdrawals and online payment functionality. TEB was the first bank to launch HCE in Turkey and has integrated the technology into CEPTETEB. Directed at the first generation of "digital natives" in Turkey as they enter the labour market. The service gained 40,000 users in the first 2 months of its launch and plans to attract nearly 500,000 customers over the next 5 years. ***"The priority is to provide convenience to the customer and capturing the younger segment is very important"*** says Gokhan Mendi, Assistant General Manager of TEB.

While embracing new technologies Turkish banks remain open minded about the full range of enabling technologies. HCE is considered promising as it moves control away from SIM centric mobile payment solutions which have not been able to gain traction in the past to cloud based solutions. ***"With HCE, banks now have the advantage of implementing it themselves"*** says Serkan Ulgen, EVP of Yapi Kredi Bank, ***"we don't need to depend on any other operator and can just focus on convincing the cardholder to use it."*** But alternative technologies such as QR codes have not been forgotten, ***"At TEB we are investing in QR codes. CEPTETEB works with IDO Turkish ferries for fast track channels"*** says Gokhan Mendi, Assistant General Manager.

Is Bank, a leader in the sector for investment in biometrics offer a finger print and vein scanning verification solution. These biometric features replace the need for cards and can be used as one of the two-factor authentication at ATM transactions together with a 4-digit passcode. The bank is also working on facial recognition solutions. Ziraat Bank is also investing heavily in biometric solutions using palm veins authentication for ATM transactions.

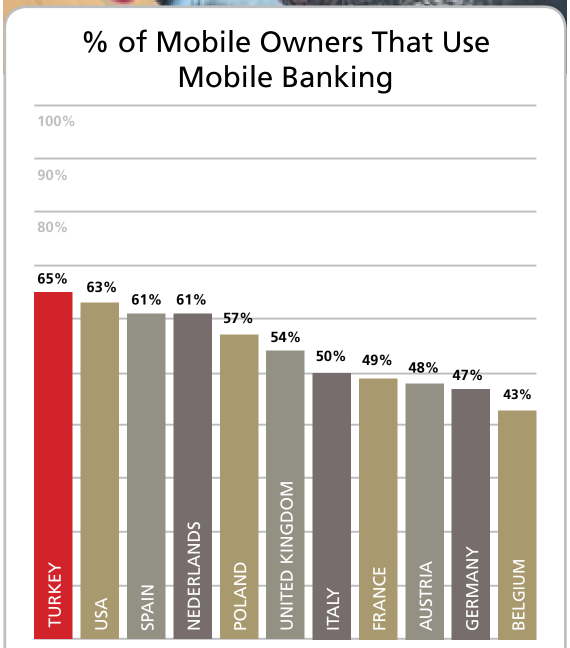
The role of BKM express

BKM has been instrumental in helping drive the adoption and awareness of mobile payments in Turkey. The company launched BKM Express (BEX), a digital wallet in 2012 to help drive online payments. The mobile version of BEX was later released, which facilitated m-commerce payments and p-2-p money transfers from one card to another via using mobile phone number. BEX is strongly positioned as it covers most of the banks and e-merchants of the country.

Going Social

BEX is also establishing a foothold in bricks & mortar payments. In partnership with Total, BEX enables consumers to pay for fuel via their smartphones without having to leave their cars. To use the service, customers need the BEX app and the Total Mobile Payment app. After entering their vehicle license plate, they are re-directed to the BEX app where the transaction is completed using one of their stored payment cards.

Soon consumers will be able to use BEX to book online reservations at selected fast food restaurants. Plans are in the pipeline for the use of BEX in other sectors such as Taxis



(Source: The ING International Survey on Mobile Banking, New Technologies and Financial Behaviour, 2015)

The hype of social media has been around for many years and the growth and expansion of the Internet has helped this area thrive. Many businesses (particularly large ones) now employ dedicated social media teams to monitor chatter, promote their brand and push product offers targeted at both existing and new customers. Social media has created a new communications paradigm in the marketplace that enables consumers to communicate with each other sharing experiences, contributing reviews, researching businesses, and discussing brands and products.

Leading the way

According to Google's 2014 Consumer Barometer Turkey is ranked number one worldwide in social media usage with Facebook and Twitter the leading social platforms. Facebook alone has around 36 million users in the country. Whatsapp, Google+, LinkedIn, and Instagram are also popular. Social media presence is relevant to all kinds of businesses including banks. Turkish banks are active in promoting their presence on social media highlighting it on their corporate websites.

Social banks

Among other things social media sites offer banks the chance to announce company information and product roll-outs, announce sponsorships and regulatory changes that are likely to impact their customers. It also offers bank customers a channel to interact with their bank, whether to ask a question or lodge a complaint. A key objective of the bank is to promote its brand, by acquiring fans and followers.

Turkish banks are amongst the most "followed" banks in the world on Facebook with the top 10 having a combined following of 8.2 million. Garanti, Yapi Kredi, Akbank and DenizBank all have over 1 million fans. But some banks have gone beyond the typical Facebook interactions to actually integrate banking features into social media services.

Powering Transport

DenizBank brought social media and banking together when it launched the world's first Facebook banking application in 2012. The service enables customers to check their account status and purchase history for their deposit and credit accounts. Customers can send money 24/7, apply for loans and chat with service representatives to ask questions and obtain help. To use the service, customers log onto their online banking to activate Facebook banking; they can then log into their account on Facebook with their Facebook username and password and an SMS password that is sent to their mobile phone. The channel is more than a gimmick. Around 10% of DenizBank's online customers regularly use the Facebook banking app. The bank has also been unique in its use of Twitter to accept credit applications. Consumers send their ID number and mobile phone number to the specially created @DenizKredi account and receive an SMS in response to their application.

The public transport experience has evolved considerably in recent years on the back of technological advances in areas such as mobile communications and contactless payment cards. These have enabled transport operators to make public transport more efficient and convenient for users. While many city transport systems across the world continue to operate with cash payment ticketing systems, most of the cities in Turkey currently accept e-payments. Two in particular, Konya and Canakkale are modernising their public transport systems for the electronic age by accepting all contactless cards (domestic and international) for ticket payment.

Opening up the system

Konya, the largest city in terms of metropolitan area and seventh largest city by population (over 1.1 million inhabitants), is located 142 miles south of the capital Ankara. Since 2013 Konya Metropolitan Municipality has been investing in the public transport system, which now counts 20 trams and 340 buses that carry a combined 300,000 passengers a day. As part of the project, a new electronic payment system was developed which enabled residents and tourists to pay for journeys using their contactless cards.

BKM played a key role in developing the payment ecosystem, working on behalf of its member banks it served as a single point of contact for validators, acquiring banks and the Municipality. The resulting system is open to all EMV contactless cards (domestic and international) and NFC compatible phones. As proof of the scale of the city's ambition, Konya was only the second city worldwide after London to achieve this. The solution in Konya has already proved popular with 10% of all passengers using their contactless cards to purchase tickets.

BKM added Canakkale, one of the largest cities in Turkey, as a second city to the system in 2015, with the same technology. In the near future, the expansion will continue to the rest of the country.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Financial Inclusion

Taxi anyone?

Uber, which is now available in nearly 300 cities, arrived in Turkey in 2014 and added a speedboat service for crossing the Bosphorus in 2015 but faces tough competition in Turkey from a popular home grown competitor called BiTaksi.

Launched in Istanbul in March 2013 BiTaksi sought to take advantage of rising smartphone use in Turkey. But the start up faced many challenges. Historically the vast majority of taxi drivers in Istanbul only accepted cash and were always reluctant to accept cards. The banks tried (unsuccessfully) on numerous occasions to get drivers to install contactless terminals. With this in mind the initial launch of BiTaksi offered only cash as a payment option. Card payment functionality was later carefully introduced through partnerships with MasterCard, Garanti Payment Systems, PayPal, Ininal and BKM Express.

To encourage migration from cash to card payments BiTaksi ***"listened to needs of the drivers, and designed a solution according to their needs"*** says Nazim Salur, the founder of BiTaksi. This led to BiTaksi taking the inspired step of absorbing the bank's merchant service charge for each card transaction. That way, taxi drivers were not discouraged by card payments as they received the same amount as a customer paying in cash. A combination of this and strong advertising campaigns on digital media and billboards helped drive non-cash payments from 8% of the total to 30%. Nazim Salur expects "non-cash payments to grow to 50-60% in the near future".

Since its launch in 2013, BiTaksi has seen more than 700,000 downloads in Istanbul alone, and out of the 36,000 taxi drivers in the city, 8,000 have signed up for the service. The app is available in both Turkish and English helping lift the language barrier between tourists and their cab drivers. The app also plans to add common phrases in up to five languages to help improve communication between passengers and drivers.

While the Turkish banking sector is advanced, vibrant and innovative, there is a concern that a significant segment of the country's population does not fully participate in the benefits of electronic banking and payments. Banking penetration levels, though growing, remain well below those in developed markets.

Financial footprint

Turkey is classified as an "upper middle income" country by the International Monetary Fund (IMF) and ranked about average within this category in terms of bank branches per 100,000 adults. In terms of ATM's per 100,000, the country fares better finding its place in the top 20% of upper middle income countries. This distribution, however, is skewed in favour of urban centres such as Istanbul and its vicinity.

Financial participation

It is important to note that proximity to infrastructure does not necessarily mean that consumers regularly use electronic channels for their banking and payment needs. In Turkey a gradually decreasing, but still sizeable section of the population could be classified as un-banked or under-served by the banking sector.

In the 2015 World Bank Findex Survey on global financial inclusion, Turkey is placed below average for similar economies. Nearly 57% of male Turkish adults in 2014 (over 15 years old) have bank accounts, significantly below the average of 70.5% for upper middle income countries while only 44.5% of women hold bank accounts - below the average of 67.5% for other upper middle income group countries.

Erkin Aydin, Executive Vice President of Finansbank, believes ***"New regulatory changes in customer communication make it harder to offer products and services to the unbanked. We have to focus more on 'pull' techniques for our marketing, for example using the power of digital platforms and word of mouth when launching new tangible and attractive products".***

Market Expansion

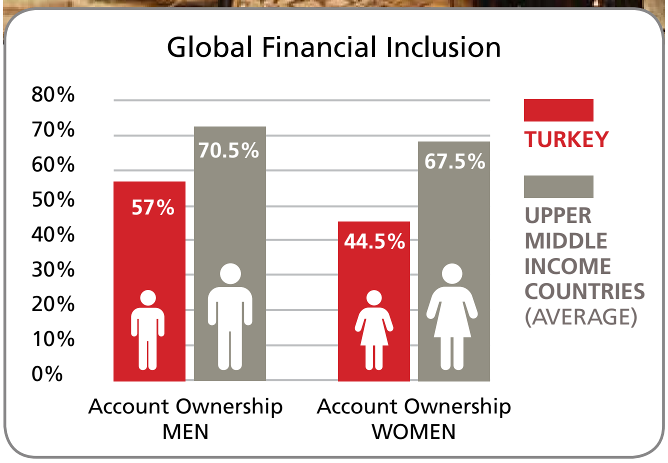
The industry has contributed positively to the development of the economy – sometimes providing lines of credit or payment facilities where none were previously available. *"Ziraat as a government bank has the mission to support students, farmers and small villages"* says Osman Tanacan, Group President of Ziraat Bank. Ziraat focuses on the agricultural sector and offers a debit card for farmers and provides credit up to $40,000. While many farmers in rural areas are unbanked, credit facilities on the card enable them to meet their needs. To ensure that the card is used primarily for agricultural credit, the card is monitored, and there are limits for cash withdrawals.

Tools for financial inclusion

Similar to many fast growing markets, mobile technologies are helping people residing in remote areas where bank branches, ATM's, or broadband internet connections are not readily available, to access their bank accounts and make payments using mobile phones, leveraging the already extensive mobile banking channel offered by most banks in the country.

Prepaid cards also provide an alternative to conventional bank accounts. A MasterCard Ipsos MORI survey of several European countries including Turkey found that prepaid cards represent an untapped opportunity that can help consumers take better control of their finances and enable children and young people to learn basic principles of personal money management and prepare them for more responsible and active involvement in financial services at a later stage. The same survey found that bank branches are by far the preferred source of obtaining prepaid cards – something that works in Turkey's advantage at least in areas of high urban density where the branch footprint is widespread.

The combination of prepaid cards and mobile phones is an even stronger driving force towards financial inclusion. A number of collaborative initiatives have been undertaken.



Source: 2015 Findex Survey

The Cep Nakit or "pocket cash" prepaid card issued by ING Bank on behalf of PTTBank, part of Turkish postal services, can be used for payments and transfers. The card carries the PTTBank brand and is available at PTT branches. It can also be purchased at more than 1,000 Vodafone outlets across the country.

Banking sector executives jointly indicates that "unbanked and underbanked consumers are not profitable for retail banking industry, hence, banks continue to focus on existing customers via new product offerings." Due to interest rate caps on revolving credit, banks are unable to compete by offering risk based pricing loans to consumers.

Until last year, only banks were able to issue cards in Turkey. After the new e-money legislation, eligible firms have the right to issue prepaid cards. This may shape the future for financial inclusion in the coming years.

Unlike their peers in Africa or developing Asia, banks have not chosen to use a mobile money approach to reach unbanked customers. For some banks the obstacle to greater financial inclusion relates less to the lack of bank branches than it does to onerous regulation regarding KYC requirements.

Nevertheless collaborative efforts between banks, card schemes and mobile operators indicate that the Turkish banking and mobile communications industries are seeking to improve financial inclusion by taking advantage of widespread mobile phone use.

In order to enable the access to banking products, BKM initiated optimisation of ATM network project with coordination of banks and regulators. The project targeted to place ATMs in rural areas of Turkey. As a result, more than 110 ATMs were installed in 50 counties, mainly in the east and south east of Turkey.

Debit cards are seen as another liver by the government to increase financial inclusion and to decrease the size of the informal economy. Banks, banking regulators, and the revenue administration office are working on initiatives to promote debit card purchases to replace cash.

troy and financial inclusion

The development of a national payment scheme in Turkey will also strengthen the country's efforts towards greater financial inclusion. The scheme will empower stakeholders to focus on Turkish priorities and follow a domestic agenda in enhancing electronic payments. Unbanked or under-served consumer segments are commonly understood to be less profitable than others and consequently do not get the attention and necessary investment from providers of financial services. As such, through initiatives such as TROY, by leveraging the domestic payments infrastructure and a cost profile that meets local needs, Turkish banks and other issuers will be able to target those consumer segments that are excluded from the financial services ecosystem more effectively.

A Word on Regulation

The growth of the Internet and the proliferation of mobile devices such as laptops, tablets, and mobile phones, are enabling technology companies to offer innovative payment and financial services to consumers. Regulators in many advanced markets are opening up payment and banking services to new entrants to help foster innovation, offer greater choice to consumers, and optimise the costs of delivering financial services.

The Banking Regulatory and Supervisory Authority (BRSA) operates as the main regulatory body of the financial system in Turkey. Vice President of BRSA, Durmuş Ali Kuzu, emphasises the robustness of the system, *"When the banking sectors of the world's developed economies were trying to deal with the global economic crisis in 2008, strong and stable structure of Turkish banking played an important role in limiting the effects of the crisis to our economy.*

"Considering the payment ecosystem is following a parallel path to technological developments, regulative infrastructure should have a flexible structure to adapt to this rapidly changing technology and focus on the rights and the responsibilities of users and organisations that launch technological products instead of the products and payment services themselves."

He added, *"In order to reach a cashless society, electronic payment methods should cover all daily payments. For this purpose, incentives for encouraging the use of card payment services, allowing use of card payments in all areas of daily life, such as tax collection and transportation services, promoting prepaid or contactless card usage instead of cash in micro payments, expanding electronic and mobile wallet usage or increasing mobile payment technologies can be considered."*

The Central Bank of the Republic of Turkey (CBRT) is one of the key authorities responsible for payments in Turkey. One of its most important duties is to implement regulations to ensure the uninterrupted operation and oversight of the existing and newly introduced payment systems.

CBRT's Deputy Executive Director, Ibrahim Kirdaban emphasises the importance of initiatives to enhance financial inclusion in Turkey and create a cashless society, *"After analysing the link between financial services and payments, we can state that almost every financial service includes a payment leg or is a payment transaction itself. Therefore, accessing and using the payment services provided by authorised service providers can be regarded as the first step towards enhancing financial inclusion. In this context, it is useful to look for the initiatives for financial inclusion in the payments world. In Turkey, there is a well-developed payments market in terms of the variety of payment services.*

"As a result of recent developments, usage of technology in financial markets has increased and new cashless payment methods have emerged. As the authorities that are responsible for sustaining financial stability, central banks are obliged to assess the effects of cashless payment methods on financial markets. Central banks are also responsible for ensuring safe, efficient and effective operation of cashless payments as well as cash payments. Furthermore, the Law on the Central Bank of the Republic of Turkey gives the CBRT a variety of significant additional duties in this area."

Regulatory Developments

In Turkey, the law relating to Payment and Security Settlement Systems, Payment Services and Electronic Money Institutions came into effect on 27 June 2013. Up to that point non-bank payment and electronic money services were unregulated in Turkey, enabling international players to operate without needing to obtain a license.

The law governs the establishment and licensing of clearing and settlement systems, payment institutions, and electronic money institutions - collectively referred to as "Institutions".

Turkey's Electronic Payment Law aligns the country with European Union legislation in this area, adopting similar

In closing

standards as set out under the European Union Directives. The objective of this regulation is to introduce the requirements for authorisation and operation (including principles on corporate governance) of these Institutions, as well as to lay out the rules on payment services and issuance of electronic money in Turkey.

The introduction of new generation cash registers containing POS features is another recent development in relation to the acquiring business. The aim of this regulation is to promote government's strategy to reduce the size of the Turkey's informal economy. This new initiative will enable transaction details to be provided by the cash register whether separate or integrated with the POS device. ***"There has been a delayed movement for the consolidation of the POS machines in Turkey",*** says Kivanc Onan of PayPal. ***"If we had a software based technology solution (new generation) instead of the hardware based solutions, the market would have benefited much sooner from this consolidation"***, he added. Cash register receipts and the merchant copy of the bank POS slips will only be printed by the printer of the new generation cash registers.

As the regulations supporting the wider payments ecosystem take effect, since August 2013, regulatory authorities have introduced new initiatives into the payment systems market aimed at managing consumer indebtedness and limiting current account deficit. These have impacted commissions and fees, card limits, number of instalments, and banks provisioning costs resulting in a negative impact on payments sector profits, limiting the growth of the sector, and potentially discouraging future investment. Cenk Temiz, EVP of BKM mentioned that, ***"It is important that we keep financial track of consumers to manage the indebtedness properly".***

The payment and electronic money services industry is a newly regulated market in Turkey. Now that the regulators have started issuing licenses to operators and service providers, the industry is expected to grow quickly over the next few years. Considering that this sector is rapidly growing in line with the technological innovations, the practical needs of the sector may lead to further legal developments.

Turkish banks have set new benchmarks for innovation both in terms of expanding and enhancing the network of traditional banking and payment channels as well embracing emerging technologies and effective distribution models. Payment cards are widely used and their numbers have increased significantly over the last decade.

BKM, with its pivotal role in the Turkish banking sector, has pioneered innovations in payments and Turkish banks have rolled out best-in-class payment products well ahead of their counterparts in other advanced markets. Regulatory changes are opening up the industry and instilling yet more competition into the market.

Regulators, banks, and other payment players share a common goal of reducing the use of cash in society in the long term. While the industry outlook is positive there are segments of Turkish population that do not fully participate in the benefits of electronic payments. Turkey has committed to achieving greater financial inclusion and has made this the central theme of its presidency of the G20 in 2015. BKM's announcement of TROY, the new Turkish payment scheme, will leverage the country's existing payment infrastructure to reduce cash usage and improve financial inclusion.

Turkey - Advanced Payments Report

References and Source Data Credits

AIMGroup

Alexa (Alexa.com)

BKM

Bloomberg Business - Turkey Considers Relaxing Card Limits to Combat Shadow Spending by Isobel Finkel – 24 August 2015 Daily Sabah

BRSA

eMarketer

European Policy Centre

Financial Times

Findex

Google's 2014 Consumer Barometer

ING International Survey on Mobile Banking, New Technologies and Financial Behaviour, 2015

International Monetary Fund

Ketchup Loyalty Marketing Agency

MasterCard / Ipsos MORI

N11

New York Times

OECD

Social Bakers

TomTom's 2015 Annual Traffic Index Trading Economics (www. tradingeconomics.com)

TUBISAD

UK Government

Various company documentation and other publicly available materials

World Factbook - CIA

World Bank

World Press Freedom Index

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