TURKISH CARD PAYMENT MARKET REPORT



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August 2018, Istanbul



Turkish Card Payment Market Report August 2018, Istanbul



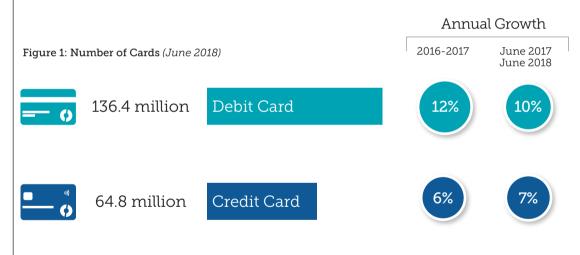




Turkey's Payment Method TROY publishes the second issue of its "Turkish Card Payments Market Report", shedding light on the key data and findings about the payments industry.

Turkey's Card Payment Market stands as Europe's largest and has maintained its high growth in the first half of 2018

As of June 2018, the number of debit cards in the industry climbed to 136 million, a 10 percent increase year-on-year. In 2017, the number of debit cards grew by 12 percent on a yearly basis. That is, the industry has sustained its upward trend.



Source: The Interbank Card Center of Turkey

The number of prepaid cards had a year-on-year increase of 22 percent and reached 20.5 million, scoring a 15.0 percent share in total number of debit cards (2017: 14.8 percent)



According to World Bank data, only 63 percent of the adult population in Turkey holds a debit card whereas that rate is between 80 and 98 percent in developed countries. This indicates that debit card market in Turkey has the potential to continue growing in the coming years.

Figure 2: Card Ownership in Adult Population (2017, population over 15 years old)



Source: World Bank Global Findex Database

The growth in the number of credit cards in the first half of 2018 was lower compared to debit cards. As of June 2018, the number of credit cards rose to 64.8 million, an increase of 7 percent year-on-year. The number of credit cards grew by 6 percent in 2017. (*Figure 1*)

In terms of card acceptance, as illustrated in Figure 3, the number of POS terminals, which stood at 1.66 million at the end of 2017, went down to 1.59 million as of June 2018. On the other hand, as of June 2018, the number of electronic cash registers (ECR) with payment software increased by 17 percent, compared to the same period of 2017, to 1.24 million. Hence, considering that the number of software per device is 1.65, the total number of terminals in the industry reached 2.34 million. On the ATM side, the number of ATMs reached 51K, translating into a 5 percent year-on-year growth.

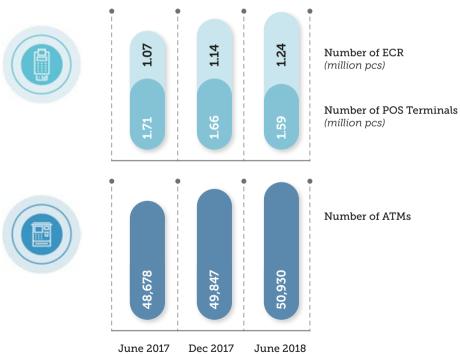


Figure 3: Card Acceptance Statistics

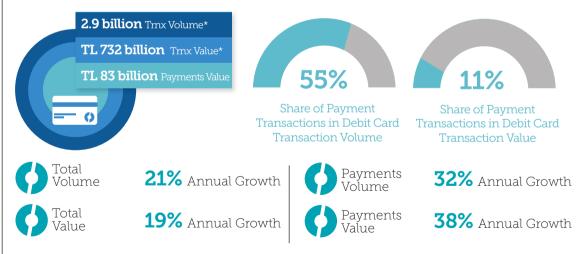


The share of purchasing transactions with debit cards is still on the rise both within debit card transactions and total card payments

Debit card transactions maintained its growth in the first half of 2018. As of June 2018, the annualized volume of cash withdrawal and purchasing transactions increased to 2.9 billion with a 21 percent year-on-year growth, while annualized transaction value reached 732 billion Turkish lira growing by 19 percent annually.

Debit cards payment volume alone grew by 32 percent and payments value went up by 38 percent on a yearly basis. The share of payment transactions in the total debit card transaction volume increased by 200 basis points compared to 2017 year-end and reached 55 percent. The share of payment transactions in the debit card transaction value remained the same as that in 2017 and stood at 11 percent. (*Figure 4*)

Figure 4: Debit Card Transaction Statistics (June 2018, Annualized)



*Shows the total of cash withdrawal and payment transactions.

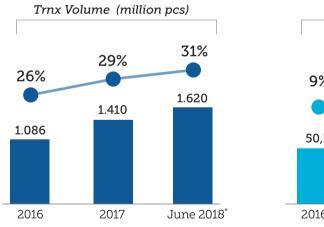
Note: Annualized figures are cumulatives of last 12 months as of June 2018. Growth rates are calculated according to annualized values.

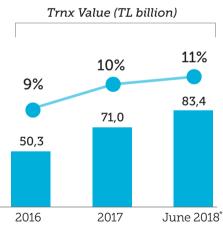
Source: The Interbank Card Center of Turkey

Payment transactions with prepaid cards also showed an increase. As of June 2018, the annualized payment transactions by prepaid cards grew by 45 percent in terms of volume and 112 percent in terms of value, reaching 60 million and 2.2 billion Turkish lira, respectively. The share of prepaid cards in the debit card payments was 2.6 percent in terms of transaction value. (2017: 2.1 percent)

Compared to 2017, the share of debit card payment transactions in total card payment transactions rose by 200 basis points to 31 percent in terms of transaction volume and by 100 basis points to 11 percent in terms of transaction value. (*Figure 5*)

Figure 5: Debit Card Payment Transactions and its Share in Total Card Payments





*: Annualized values



Note: Calculations are based on the transactions made in the last 12 months as of June 2018. Source: The Interbank Card Center of Turkey

The number of debit card payments had surpassed cash withdrawals in 2017 for the first time. Debit card payments outnumbered cash withdrawal transactions as of June 2018 as well. This shows that debit cards are getting more and more popular as a payment method among customers. In the first half of 2018, users made an average of 3.1 payment transactions (2017: 3.0) and 1.5 cash withdrawal transactions per month with a debit card. In this period, monthly ticket size of payment transactions per active card stood at 162 Turkish lira; that figure was 151 Turkish lira in 2017. (*Figure 6*)

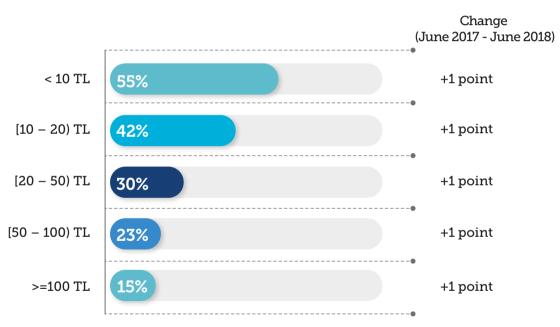
Figure 6: Transactions per Active Debit Card (June 2018)



Note: 2018 values are calculated using the last 12 months cumulatives as of June 2018. The average figures are based on the number of active cards over the last 12 month period. Source: The Interbank Card Center of Turkey

Card users tend to use their debit cards particularly for payments below a certain amount. The average ticket size of debit card payments is 52 Turkish lira and debit card payments constitute 39 percent of all card payments under 50 Turkish lira. The share of debit cards in payments under 10 Turkish lira is as high as 55 percent while that number is 42 percent for payments between 10 and 20 Turkish lira. (*Figure 7*)

Figure 7: Share of Debit Card Transactions in Total Card Payments by Ticket Size (Number of Transactions, June 2018)





Debit cards are most frequently used in "Supermarket, Shopping Mall and Food"; "Gas and Fuel" and "Clothing and Accessories" sectors, in which the use of debit cards for payments under 50 Turkish lira is over 35 percent. Moreover, card users use their debit cards for nearly half of total card payments under 50 Turkish lira in the "Restaurant" industry. *(Figure 8 and 9)*

Figure 8: Breakdown of Debit Card Transactions by Industry (Number of Transactions, June 2018)

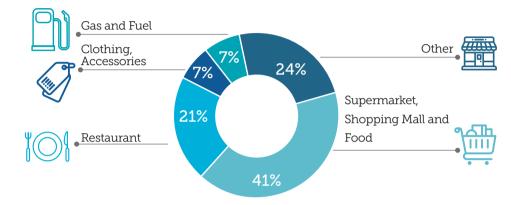
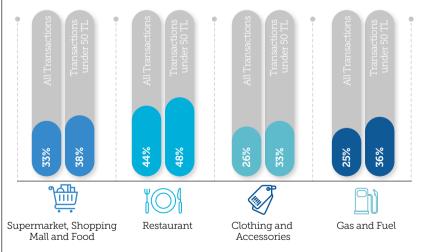


Figure 9: The Share of Debit Cards in Total Card Payments by Industry (Number of Transactions, June 2018)



Note: Calculations are based on the transactions made in the last 12 months as of June 2018. Source: The Interbank Card Center of Turkey

TROY, which has transformed Turkey's unique richness and deep-rooted payment habits into Turkey's Payment Method, can be used all over the world.

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Credit card market grows with commercial cards and new users in consumer credit cards segment

As of June 2018, cash advance and payment transactions with credit cards amounted to 3.7 billion in terms of transaction volume (12 percent annual growth) and 727 billion Turkish lira in terms of transaction value (16 percent growth) on an annualized basis. In this period, in line with the rates in 2017, payment transactions constituted 97 percent of the credit card transaction volume and 90 percent of transaction value.

Figure 4: Credit Card Transaction Statistics (June 2018, Annualized)



Note: Annualized figures are cumulatives of last 12 months as of June 2018. Growth rates are calculated according to annualized values. Source: The Interbank Card Center of Turkey

According to June 2018 data, credit card users made an average of 6.2 payment transactions per month in 2018, while monthly ticket size of payment transactions per active card was 1,123 Turkish lira. (*Figure 11*)

Figure 11: Transactions per Active Credit Card





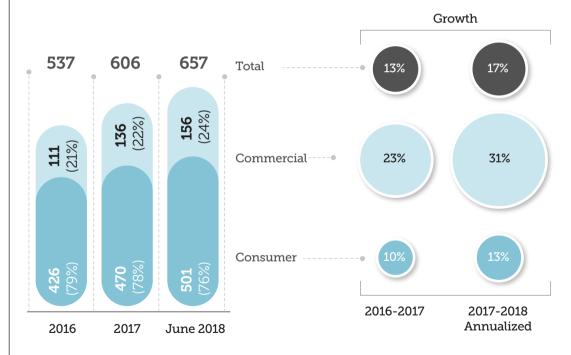
Monthly Ticket Size of Payment Transactions Per Active Card

Note: 2018 values are calculated using the last 12 months cumulatives as of June 2018. The average figures are based on the number of active cards over the last 12 month period. Source: The Interbank Card Center of Turkey

Consumer Credit Cards **60.8 million pcs**

Commercial Credit Cards **4.0 million pcs** The segment breakdown of credit cards reveals that commercial cards continue growing; number of commercial cards reached 4 million as of June 2018. In 2017, the payment transactions value by commercial cards grew by 23 percent to 136 billion Turkish lira. As of June 2018, this number has grown further by 31 percent and reached 156 billion Turkish lira on an annualized basis. Meanwhile, the share of commercial card payments in total credit card payments rose from 22 percent in 2017 to 24 percent in June 2018.

Figure 12: Segment Breakdown of Credit Card Payment Transactions Value (billion TL)





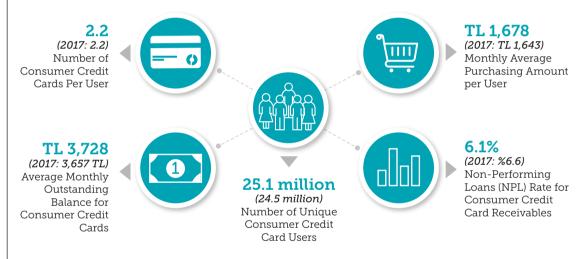
Note: Annualized figures are cumulatives of last 12 months as of June 2018. Growth rates are calculated according to annualized values.

Source: The Interbank Card Center of Turkey

The past few years have witnessed some fundamental changes in consumer credit cards segment. Namely, consumer card users started to use their cards more consciously. Furthermore, the industry's growth in recent years has been driven by new entrants into the system rather than additional spending made by existing consumer credit card users.

Figure 13 illustrates that the number of consumer credit card users climbed by 600K compared to 2017, reaching 25.1 million as of May 2018, while the number of consumer credit cards per user remained steady at 2.2.

Figure 13: Consumer Credit Card Statistics (May 2018)



In 2018, a consumer credit card user spent on average 1,678 Turkish lira per month (2017: 1643 Turkish lira) with his/her card, while the average monthly outstanding balance has been 3,728 Turkish lira (2017: 3,657 Turkish lira). In line with the conscious use of credit cards, non-performing loans (NPL) ratio for consumer credit card receviables declined further by 50 basis points to 6.1 percent compared to 2017 year-end. (*Figure 13*)

Note: While calculating the number of credit cards per person, commercial credit cards and virtual cards were excluded from the total number of credit cards. Monthly average spending and credit card outstanding balance show the average of the last 12 months as of June 2018.

Source: The Banks Association of Turkey Risk Center Report, The Interbank Card Center of Turkey

Online card payment volume grew by 15 percent, reaching 116 billion Turkish lira on an annualized basis

Online payments maintained rapid growth in the first half of 2018. The online card payment volume, which was 99 billion Turkish lira in 2017, reached 116 billion Turkish as of June 2018 on an annualized basis. This translates into a year-on-year incerease of 36 percent. Besides, the share of online card payments in total card payments rose to 15.4 percent as of June 2018 from 14.5 percent in 2017.

Figure 14: Online Card Payment Statistics (June 2018, Annualized)



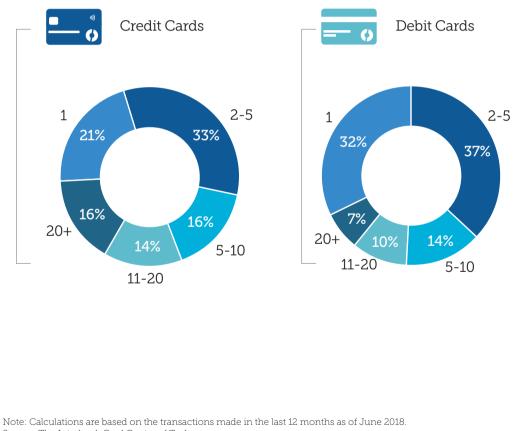
As of June 2018, the number of unique credit cards used in online payments climbed to 27.6 million from 26.6 million in 2017. In the same period, the ratio of unique credit cards used in online payments to total credit cards was 42.6 percent (2017: 42.5 percent). The number of unique debit cards used in online payments, on the other hand, was 9.9 million constituting 7.2 percent of total debit cards (*2017: 6.4 percent*).



Note: Annualized figures are cumulatives of last 12 months as of June 2018. Growth rates are calculated according to annualized values. Source: The Interbank Card Center of Turkey

In the first half of 2018, credit cards maintained their dominating stand in online card payments. Online credit card payments accounted for 84 percent of total online card payments by transaction volume and 95 percent by transaction value. Moreover, 30 percent of the credit cards used in online payments were used at least for one online transaction per month (number of annual transactions of 10 or above). (Figure 15)

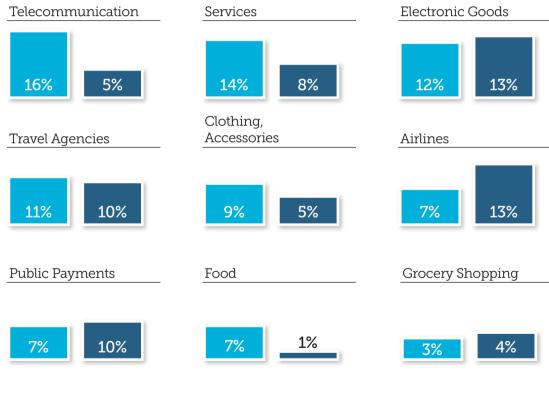
Figure 15: Breakdown of the Number of Unique Cards Based on the Online Purchasing Frequency per Year (June 2018)



Source: The Interbank Card Center of Turkey

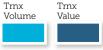
Online payment transactions concentrated in the three sectors in terms of transactions volume: "Telecommunication" (16 percent), "Services" (14 percent), and "Electronic Goods" (12 percent). The three sectors that took the lead in terms of transaction value have included "Electronic Goods" (13 Percent), "Airlines" (10 percent), and "Public Payments" (10 percent). (*Figure 16*)

Figure 16: Breakdown of Online Card Payment Transactions by Industry





Note: Calculations are based on the transactions made in the last 12 months as of June 2018. Source: The Interbank Card Center of Turkey



Developments in Turkey's Card Payment Market Considering the breakdown of online card payments by ticket size, it's possible to say that online payments are concentrated over transactions above 100 Turkish lira; the ticket size for 35 percent of online card payments was 100 Turkish lira or higher. Online payments between 20 and 50 Turkish lira accounted for 25 percent and payments between 50-100 Turkish lira equaled 20 percent of all online card payments by transaction volume. (Figure 17)

Figure 17: Breakdown of Online Card Payments by Ticket Size (Transaction Volume, June 2018)

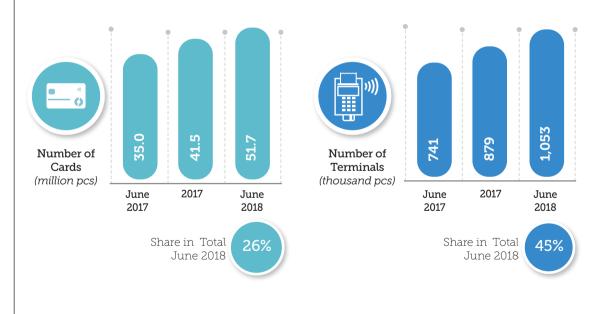


Note: Calculations are based on the transactions made in the last 12 months as of June 2018. Source: The Interbank Card Center of Turkey

Contactless payment, a quick and practical payment method, maintains a strong upward trend

Contactless payment has become more widespread in the market, thanks to its quick and practical nature, and maintained its growth in 2018 as well. As of June 2018, the number of contactless cards climbed 24 percent to 51.7 million year-on-year. The terminals that accept contactless cards continued to expand rapidly. The number of contactless terminals, which increased by 42 percent compared to June 2017, exceeded 1 million. In other words, contactless cards accounted for 26 percent of total cards, while contactless terminals constituted 45 percent of total terminals.

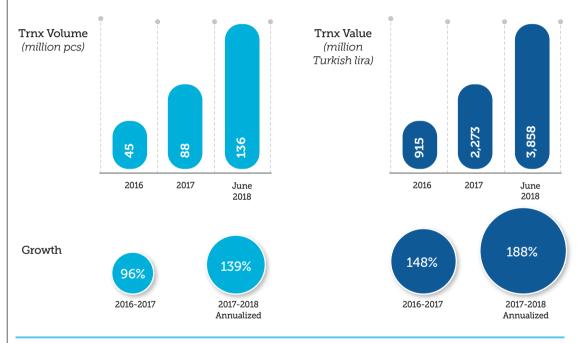
Figure 18: Number of Contactless Cards and Terminals Statistics





The use of contactless cards is becoming widespread, along with the increase in the number of contactless cards and payment points. As of June 2018, the number of contactless transactions grew by 139 percent to 136 million per anum and contactless transaction value reached 3.8 billion Turkish lira on an annual basis with a growth rate of 188 percent. Contactless transactions made up the 2.6 percent of total card payment volume, taking 0.5 percent share of total transaction value.

Figure 19: Contactless Transaction Statistics (Annually/Annualized)



Contactless payment method is used most frequently in industries such as Restaurant, Travel Agencies, and Supermarket and Food. In these industries, the share of contactless transactions in card payments is 6.4 percent, 4.5 percent, and 2.9 percent, respectively.

Note: Annualized figures are cumulatives of last 12 months as of June 2018. Growth rates are calculated according to annualized values.

Source: The Interbank Card Center of Turkey





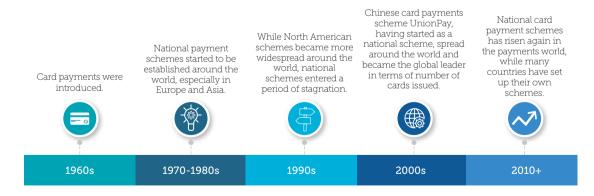
TROY has a wide range of solutions from magnetic stripe cards, chip cards, and contactless cards, which are compatible with EMVCo standards, to a mobile contactless payment solution.

National payment schemes, present in our lives since the early days of card payments, have forged ahead again.

Since the 1960s, when the card payments were first introduced, national schemes have carved out a niche for themselves. In the 1980s, national payment schemes sprang up from ATM networks in many countries, particularly in Europe and Asia.

In the 1990s, North American schemes started to become prevalent around the world. In this period, where number of people moving across countries surged, national schemes went through a period of stagnation, as they couldn't keep up with the internationalization of North American schemes.

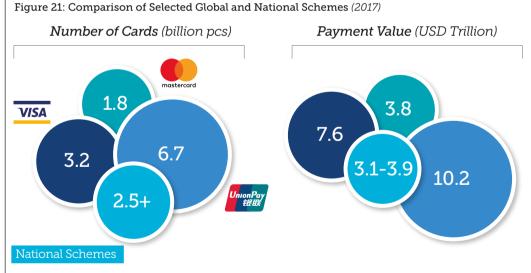
Figure 20: Timeline for National Schemes



Special Agenda: National
Payment Schemes across
the WorldHowever, since 2010 we have witnessed the rise of national payment schemes again in
the payments industy, encouraged by the fact that Chinese card payments scheme
UnionPay, established in the early 2000s, became the fastest growing card issuer in the
world. Some of the national card payments schemes have become the most recognized

brands in their respective markets such as recently-established Brazilian card brand Elo as well as Germany's deep-rooted debit card scheme Girocard.

UnionPay *程度*接 UnionPay, which was launched as a national payment scheme in 2002 as "China UnionPay," pulled ahead of global schemes in a short period of just 10 years by reaching nearly 3 billion cards by the end of 2011. UnionPay began developing into a global scheme with China's integration with global economies and the increase of Chinese outbound tourism. Today, UnionPay is a global leader in terms of payments value with nearly 7 billion UnionPay cards issued in 48 countries, and accepted in 169 countries around the world. According to a report by McKinsey&Company, national payment schemes reached more than 2.5 billion cards worldwide in 2016 and scored a 12-15 percent share in the global payment market of \$26 trillion. That is to say that national schemes have become bigger than some global schemes in total. (*Figure 21*)

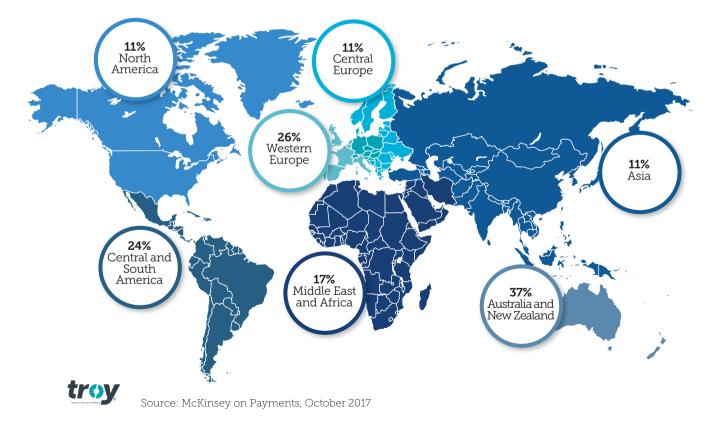


Note: National scheme figures are as of 2016. Card numbers of global schemes for 2016 are as follows: Visa: 2.5 billion, Mastercard: 1.7 billion, UnionPay: 6.1 billion. Value of payments of global schemes for the same year are as follows: Visa: \$7.0 trillion, Mastercard: \$3.5 trillion, UnionPay: \$8.4 trillion. Source: McKinsey on Payments (October 2017); Nielson Report (April, 2018)

The share of national schemes in payments value accounts for as high as 24 percent in Central and South America, 26 percent in Western European countries, and 37 percent in, Australia and New Zealand. (*Figure 22*)



Figure 22: Shares of National Schemes in Card Payments (Transaction Value, 2016)



The main drivers of the rise of national payment schemes are strategic considerations as well as cost advantages and innovation power of domestic schemes

To determine the factors that played a role in the recent rise of national schemes, one needs to ask the question: "Which problems do the national payment schemes solve in the payments industry?"

Some countries, such as Russia and Brazil, consider having a national payment scheme as a strategic advantage. For instance, the main motivation for the launch of Russian national payment system MIR in 2015 was to reduce the country's dependence on other countries. The Brazilian payment scheme Elo, which was founded in 2012, also had similar motivations such as reducing the reliance on other countries by keeping the locally produced technology within the country, creating competitive advantage by diversifiying payment products, increasing the industry's profitability, and building up domestic capital.



Local card schemes enable payments products that cater to the needs of domestic stakeholders mainly bank clients (consumers and merchants) and their respective payment preferences. But they also ensure the smooth alignment in a wider institutional setting with a local context, since regulatory and data protection questions as well as the ever more important areas of cyber security are looking for – at least to some extent –domestic answers.

Dr. İbrahim Karasu (Association of German Banks, Member of the Board of Directors)

In some markets, national payment schemes are born as a response to unmet market needs. For example, RuPay was established in 2012 in India, which has a population of 1.3 billion, with a mission of helping the unbanked population, which accounted for 52 percent of the population, access to the financial system and thus acting as a catalyst for the country's transition from a cash-based economy to a digital one. In doing so, the National Payments Corporation of India aimed to create cost-advantages to Indian banks by offering favorable pricing.



The core competencies that make RuPay stand out include fast and quality service, local knowledge and support, ability to offer cost advantage - as high as one third of other schemes' cost base-, and the ability to offer value-added products and services for card users.

Abhaya Prasad Hota (Former CEO of RuPay)

Cost advantage is another value created by the many national schemes. According to Anthemis, a global consulting services in digital finance, national schemes help the banks reduce their costs with more affordable pricing at half the price of global schemes. The cost saving rate ranges from 25 to 75 percent, depending on the country.¹ This benefit becomes more prominent given that domestic transactions in many countries still constitute a significant portion of the total card payments and that the pressure on profitability increases.



¹ Source: "National Payments Schemes: Drivers of Economic and Social Benefits?" (John Chaplin, Andrew Veitch, Prof. Dr. Jürgen Bott)

Another value proposition of the national payment schemes is their ability to meet the market needs quickly and in doing so to pioneer innovation and bring dynamism to the market. Here are a few examples. For example, Danish Dankort, Belgian Bancontact, French Cartes Bancaires and Portuguese Multibanco, all founded in Europe in the 1980s, have transformed over the years and become pioneers of digital payments in their markets with their mobile payment solutions.



As another example, German national payment scheme Girocard has recently piloted its mobile payment solution with Volksbank Mittelhessen and VR-Bank HessenLand. This solution allows Girocard users to make contactless mobile payments -through Host Card Emulation (HCE) technology- after activating their cards on their banks' mobile banking applications.

BC Card, South Korea's national payment scheme, announced in May 2018 that they successfully completed the tests for Korea's first virtual credit card. Until recently, it was mandatory in the country to produce plastic cards even if they were to be used in mobile payments. BC Card started efforts after the lifting-up of this obligation and became the first player to introduce this new product to the market. The product uses different technologies such as Host Card Emulation (HCE) and NFC (Near Field Communication) and offers its users contactless mobile payment service in many locations. This exemplifies the critical role played by national payment schemes in situations where international schemes can not respond quickly enough to the local needs due to their sheer size and global priorities.

Above mentioned value propositions by national schemes such as cost advantage, innovation and speed, and ability to meet market-specific needs also resonate with card issuers. According to a survey by Anthemis, these advantages make up three of the five factors that banks consider in scheme selection. This indicates that national schemes are likely to become major and permanent players in the market if they succeed in maintaining their value propositions in an environment where the competition gets tougher with the actions of international payment schemes.

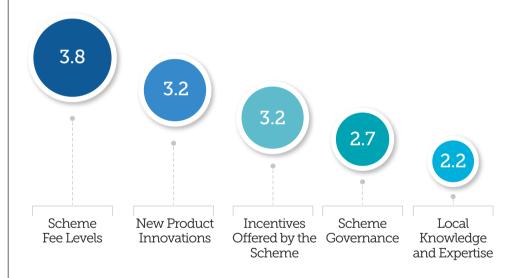


Figure 23: Factors Influencing the Scheme Selection of Banks

Note: The scoring is done on a 1-5 rating scale, 1 being the least important and 5 the most important. Source: The Outlook For National Payment Schemes In A Global Economy (John Chaplin, Andrew Veitch)

Lastly, the fact that national schemes can better meet the needs and expectations of not only card issuers but also regulatory bodies, merchants, and other critical stakeholders in the payments ecosystem is yet another factor for the rise of the national schemes.



Following the introduction of its mobile contactless payment technology, **TROY Innovation** Center forges ahead as the innovative powerhouse of Turkish payment market to develop more innovative products and services combining new techlogies like augmented reality and wearables with

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The development of national payment schemes varies according to market dynamics

The national payment schemes have progressed differently in different countries. For example, it took 20 to 25 years for the national payment schemes to dominate the market in countries such as Canada, Germany, and Italy. In other countries such as India and Brazil, on the other hand, national payment schemes became vital in the market in a short time of only five years.

Today, German Girocard, Europe's most established debit card scheme, is the market leader by a large margin with more than 100 million cards in a market with 108 million debit cards. Girocard, identified with debit cards, has maintained its leadership position for an extended period, although international players have been trying to increase their penetration in German debit cards market with new brands (Visa, V Pay, and so on).

Similarly, three different national payment schemes (ServiRed, Sistema 4B, EURO6000) established in Spain in the 1970s continue to grow today with a total of over 79 million cards as of 2017.

Over the past five years, national payment shcemes established in emerging markets have gained significant growth momentum. Elo, established as a joint venture by the three leading Brazilian banks, grew its number of cards by ten-fold, reaching 115 million cards in just five years up from 11 million at the end of 2012. During the same period, Elo's payment transaction value climbed to \$40 billion in 2017 from \$1.2 billion in 2012, achieving 12 percent market share.





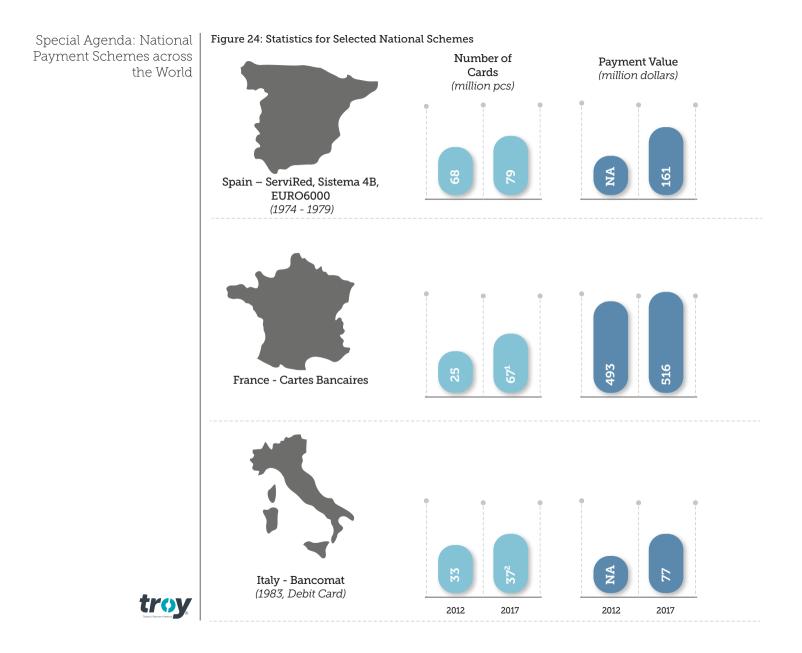
Elo has developed its own Chip technology and virtural cards platform in Brasil, as part of its local innovation strategy. On the market side, the local brand opened new opportunities for the issuer banks to tap into new segments with a more cost effective model such as the lower end of the population in the consumer cards market. particularly for the debit products, and the SME segment in the commercial card market. with customized programs for the local market needs and wants.

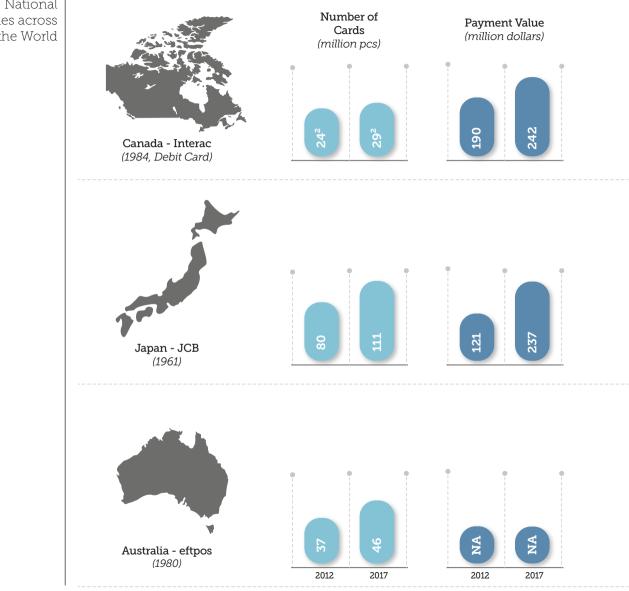
Max Iervolino Basile (ELO,CMO)

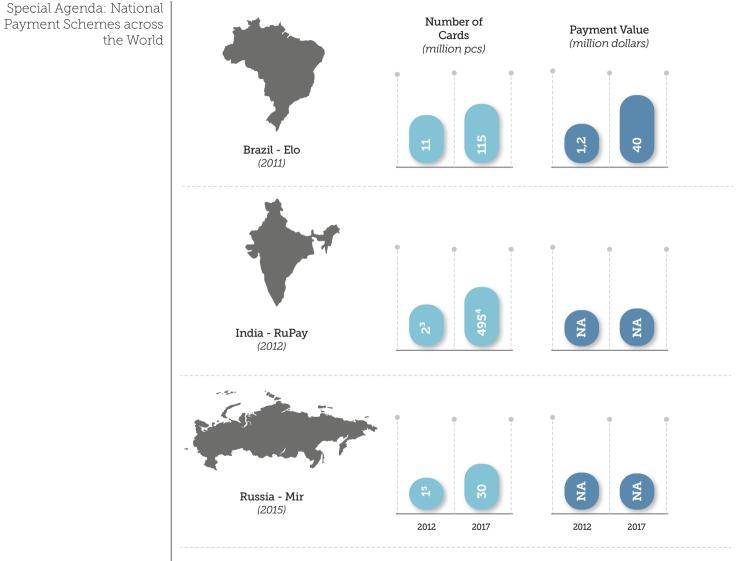
² Source: The Reserve Bank of India (RBI)

As another example, the Indian national payment scheme RuPay reached 500 million cards in five years and achieved 57 percent share in a debit card market of 861 million cards. While 60 percent of RuPay's card base is made up of cards issued to the unbanked within population the government's "Financial Inclusion Program", an important portion of RuPay cards, as high as 40 percent, has been issued to banked population. In 2017, the scheme launched its credit card product to penetrate in a market of around 38 million credit cards².

Despite having been established by the private sector, RuPay has received significant support from public sector and become a vital catalyst in building a "less cash" future in India. Public sector support has gone as far as making all social aid payments and payments to farmers through RuPay cards. This not only helped RuPay grow rapidly but also realize its core mission to access the unbanked population; the proportion of people that have a bank account soared to 80 percent from 48 percent in just three and a half years.









1 As of 2016 - 2 Shows the number of active cards - 3 As of 2013 - 4 As of March 2018 - 5 As of October 2016 Source: Scheme websites and statements by the schemes, central banks, McKinsey on Payments (October 2017)

What the future holds for national payment schemes?

The survey, carried out by CC Associates and SIA among 25 national card schemes from five continents, highlighted a greater sense of optimism about the future of national schemes among the managers. Seventy percent of the participants see the prospects for national schemes as improved. This rate was 56 percent in Anthemis' research using a similar methodology in 2014.

Figure 25: How Do National Schemes Envision Their Future?



Note: The values in parentheses indicate the proportion of responses given in a similar study in 2016. Source: "National Payments Schemes: Drivers of Economic and Social Benefits?" (John Chaplin, Andrew Veitch, Prof. Dr. Jürgen Bott); Global Survey: Domestic Schemes Shifting Focus To New Digital Payments Services (CC Associates, SPA)

The share of national payment scheme managers who are pessimistic about the future fell to 9 percent over the past few years from 32 percent. Despite the increased competition with global schemes, national payment schemes managers are optimistic about their future and believe that they will become even more important players in the market in the coming years.

National payment schemes are undoubtedly a rising trend that has become prominent on the global stage. Looking into the future, they will reshape the payments industry playing field, become more competitive, and better respond to the market needs and expectations. Nonetheless, challenges ahead are not to be understated: regulatory environment pushing for new business models and increasingly more efficiency; market response from the major global players against the new local competitors; need for gaining scale at both issuing and acquiring sides of the business; strong funding and expertise capacity needed for products and technology development; need for heavy marketing investments to build and position the brand and drive preference in the market.

Max Iervolino Basile

(ELO,CMO)

The question is what the priorities of national schemes that are optimistic about the future are. Fifty-six percent of survey respondents rated developing innovative products and services as their number one priority and 46 percent as medium priority. National schemes grasp the importance of going beyond conventional products in an increasingly digitized world. For many schemes, it's a priority to develop products and services that focus on mobile payments.



The survey shows an overwhelming majority of schemes, 92 percent, are in favor of greater international collaboration. As a result of increased mobility, worldwide acceptance of cards is set to become a hygiene factor in some markets.

National schemes choose to collaborate with major global schemes (Discover, JCB) or unite forces with other national schemes to raise the acceptance rate and gain an advantage in today's highly competitive world.

There are two main challenges for national schemes that constantly have to be met: Firstly, a limited cross-border reach; for most banks, domestic card schemes are only one component of their card products portfolio. As a consequence, local card schemes need to offer standards that enable confident and partnership-oriented product designs: co-badging is an appropriate answer to this. Secondly, the issues raised by an ever faster digitally-oriented world: Does a local card scheme have to embrace every trend? In this regard, my recommendation would be to prioritize areas that add real value to local preferences such as contactless and mobile payments. At Girocard, we also prioritize in-store solutions for easy withdrawals for card users, considering the German market dynamics. For the future, instant payments and omnichannel solutions are high on our agenda. Domestic card schemes have great prerequisites, notably through their independence and attachment to local markets, to cater for needs requiring innovation and flexibility.

Dr. İbrahim Karasu

(Association of German Banks, Member of the Board of Directors)

One of the most challenging factors for national schemes in the future will be increased competition by global schemes offering major financial benefits to national card issuers. We might witness that some national schemes join forces to tackle this. A good example is the merger of three Spanish national schemes, ServiRed, Sistema 4B, and EURO8000, to better meet the needs in the market as announced early 2018.

Finally, responding to commercial pressures by managing revenues and costs is rated as a priority by 25 percent of the participants. Thus, sustaining the cost advantage provided to the members, which is one of the core promises of the national schemes, will be a top agenda item in the future.

Turkey's Payment Method TROY launched for consumer in 2017 has reached over 3 million cards in just under two years

Turkey, Europe's largest card market, decided to establish its own national payment scheme in 2014, just like the other developing markets, drawing strength from BKM's vital role and know-how in the industry.

The dynamics that lead the banks to make that decision under BKM's roof include: (i) Turkish card payments market is dominated by domestic transactions, (ii) Switch and processing are already done by BKM and BKM as a central body sets the rules for the payments industry, (iii) the industry has vast knowledge and technology of card payments, (iv) there has been a growing need for an alternative payment method that can quickly and accurately respond to local wants and needs in the market.

An examination of Turkey's card payment industry shows that a significant portion of the cards are only being used for domestic transactions (91 percent of unique cards) and nearly 98 percent of both the transaction volume and the transaction value is domestic in nature. (*Figure 26*)

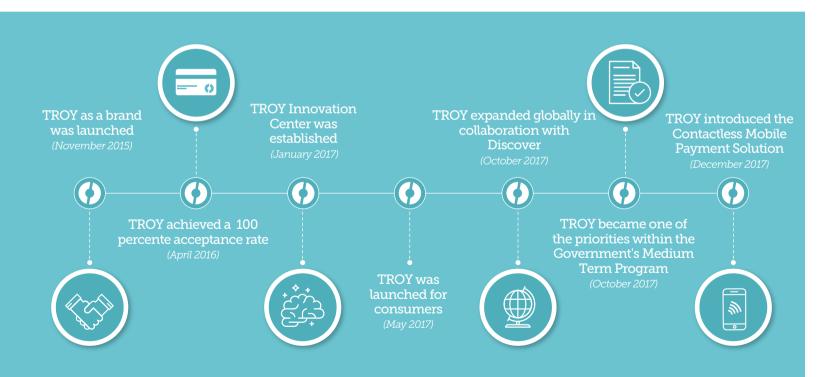
Figure 26: Share of Domestic Transactions in Turkey's Card Payment Industry (2017)



Note: The share of domestic transactions in the total transaction value is calculated based on all of the cards in the market. The share of transaction value due to domestically used cards to the total transaction value is 88 percent. Source: The Interbank Card Center of Turkey

Considering these dynamics, development efforts began in 2015 upon the completion of detailed assessment and planning performed in 2014 and 2015. After the strategy formation and planning stages were completed, TROY received the required permissions from regulatory bodies. The first transaction was conducted as early as April 2016, since when TROY has been accepted at all payment points (ATMs, POS devices, and e-commerce sites) across Turkey. The fact that TROY has achieved a 100 percent acceptance rate at such an early stage is what differentiates TROY from other national schemes and gives TROY a competitive edge in the market.

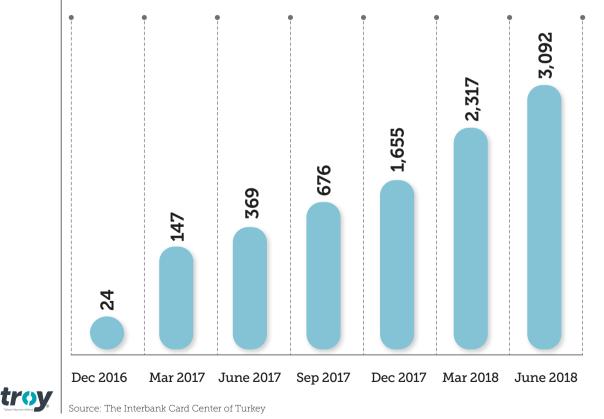
Figure 27: Milestones in TROY's Journey



One year after the first transaction was performed on April 1 of 2016, TROY was launced for consumer in May 2017.

TROY has made considerable progress in a short period of time since then. TROY with its 28 members covers almost all of the market. Twenty of the 28 members are already issuing TROY cards, while the remaining members continue their development efforts to issue TROY cards. The number of cards with the TROY logo jumped to 3.1 million from 24K at the end of 2016, a very short period of just one and a half years.

Figure 28: Number of TROY Cards (thousand pcs)



Thanks to the rapid increase in its number of cards, TROY achieved a 2.1 percent market share as of June 2018. TROY's share in newly-issued cards on the market is much higher. Since the beginning of 2017, 15 out of every 100 newly-issued debit cards bear the TROY logo. Namely, TROY has a 15% market share in newly-issued cards and this rate is increasing day by day.

Figure 26: Progress of Cards Bearing the TROY Logo (thousand pcs)



Transactions performed with TROY cards also keep growing with high momentum. As of June 2018, transactions performed with TROY cards reached 44 million in terms of transaction volume and 12 billion Turkish lira in terms of transaction value, on an annualized basis.

Moreover, usage patterns of TROY cards are parallel to the overall industry. For example, share of payment transactions in total debit card transactions for TROY cards, 55 percent in terms of transaction volume and 11 percent in terms of transaction value, is the same as the that of the other cards in the sector.

Just as its peers in the world, TROY is a national payment scheme that aims to pioneer innovation in the Turkish card payments market. TROY Innovation Center, established in January 2017 right after the public release of TROY, reinforces the Turkish payment market's ability to develop innovative products and services that set examples globally.

Special Agenda: National	TROY aims to contribute to the industry's sustainable and healthy growth and reach
Payment Schemes across	40 million cards with 20 percent market share as of 2022 while sustaining its leading
the World	position in innovative products and services in Turkey's card payment industry.













