Visa Consulting & Analytics (VCA)

Accelerating the transition to digital payments

More can be done to encourage, enable, and accelerate the digitization of payments

While the pandemic may have hastened the growth of digital payments, there is still a lot of cash in circulation. Given financial institutions, consumers, merchants, and the wider economy all benefit from alternatives to cash, what can be done to reignite increasing card present transaction and reducing cash at point-of-sale?

At Visa Consulting & Analytics (VCA), we have worked with financial institutions, banking industry bodies, and governments around the world, helping to benchmark cash levels in their economies, identifying opportunities to digitize payments, and applying the lessons learned in other markets.

In this paper, we outline techniques to understand the prevalence of cash, identify the main drivers of payment digitization, and provide four recommendations for financial institutions and governments to consider on their journeys to reducing the reliance on cash.

The benefits of reducing cash – for every stakeholder

Digital payments offer significant advantages over cash and checks – for financial institutions, consumers, businesses, and the wider economy.

Financial Institutions

- Revenue from:
  - Card fees and charges
  - Account balance
  - Higher consumption of other banking products
- Reduced costs:
  - Cash handling
  - Infrastructure – ATMs, branch network
- More transparency on customer behavior – data to improve customer service, targeted campaigns, Customer Value Proposition improvement
- Better fraud management (e.g., counterfeit banknotes)

Consumers

- Time savings in banking, transit, and retail transactions
- Savings from avoidance of late-payment fees
- Increased convenience
- Improved budgeting and expense tracking
- More personalized customer service
- Better data to build credit profiles

Businesses

- Lower fraud rates
- Labor time savings
- Potential for greater sales through digital channels
- Better data for targeted promotional campaigns
- Convenient inventory and expense tracking
- Utilize data to improve loyalty schemes
- Better protection for returns / disputes

Governments

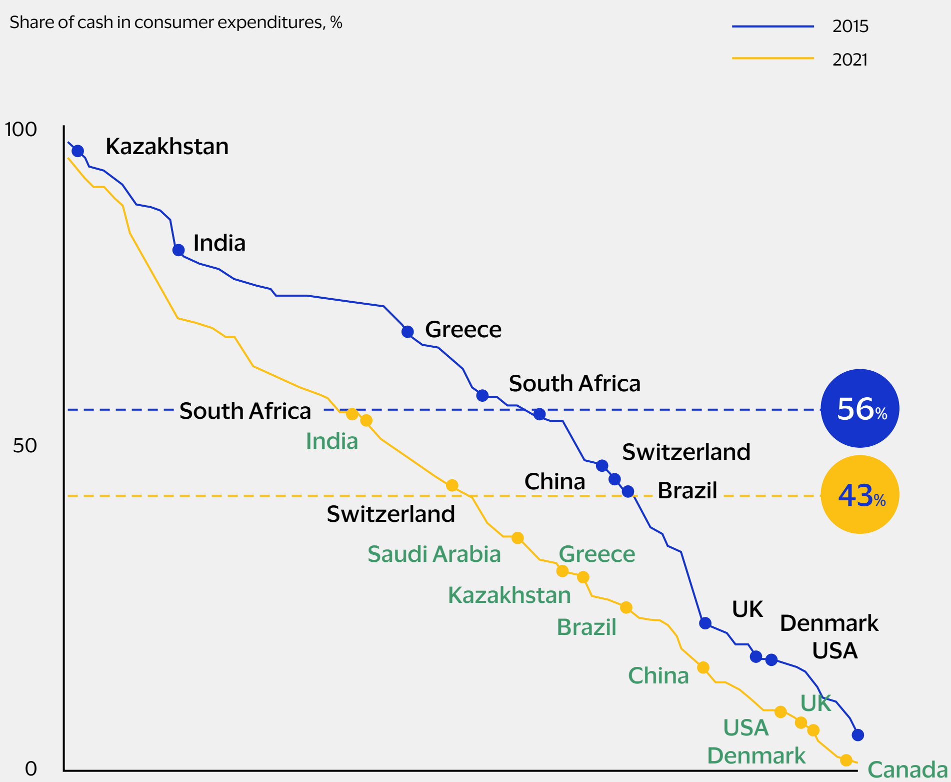
- Savings from more efficient government processes
- Increased tax revenues from recaptured informal economy
- Increased tax revenues from business sales
- Criminal justice cost savings from reduced fraud
- Deeper insights into consumer behaviors
- Lower costs of managing cash
- Smart cities to enhance citizens' quality of life

Understanding the prevalence of cash payments

The first step in understanding the prevalence of cash payments is to know the current situation in your market and how it compares to similar economies.

To start, it is necessary to understand the prevalence of cash payments, the recent trends, and the relative performance of different countries. Taking this top-line approach, you can see that, globally, the share of cash as a proportion of consumer expenditure is on the decrease, **falling from 56 percent to 43 percent between 2015 and 2021.**[1]

Understanding differing levels of cash usage – and the speeds at which countries are progressing on the journey to using less cash



Over the past six years we have seen a pronounced decrease in the use of cash worldwide.
But the progress of different countries has been far from even.

Some markets have outperformed the global norms, while others have progressed more slowly.

Source: Joint consumer expediture study by Visa and Euromonitor, 2021

[1] Joint consumer expenditure study by Visa and Euromonitor

Countries compared: Highest-ranking by levels of payment digitization and extents of recent progress

Top 10 most digitalized countries

Country	2015	2020	
Norway	1	1	—
Sweden	2	2	—
South Korea	3	4	-1
New Zealand	4	3	+1
Canada	5	7	-2
Denmark	6	5	+1
Australia	7	9	-2
UK	8	5	+3
USA	9	10	-1
Ireland	10	8	+2

Best progress in payment digitization

Country	2015	2020	
Argentina	33	15	+18
China	34	27	+7
•••			
UAE	40	36	+6
•••			
Kazakhstan	45	37	+10
•••			
Saudi Arabia	47	37	+10
Greece	47	30	+17
•••			
India	60	50	+10

Benchmarking countries' payments digitization and comparing their performances over time reveals that there are real opportunities to accelerate the payments-digitization journey.

Even among countries with already high levels of digitization, the progress is uneven.

Source: Visa Consulting & Analytics research, 2021

A deeper analysis reveals the defining characteristics of countries that have outperformed their peers, the potential for each market to accelerate its own journey toward reducing its use of cash, and the most effective strategies for doing so.

Understanding the road to reducing cash

While the use of cash at point of sale is being progressively replaced in most economies worldwide, every market varies in terms of stage of development, pace, and trajectory.

The journey to digitizing payments is rarely steady. Instead, it tends to be characterized by sudden changes of pace, which are catalyzed by specific initiatives or developments.

For this reason, any useful analysis should dig into the wider circumstances at play in a market, including macro-economic factors, regulatory environments, maturity of banking services, penetration of digital technologies, extent and capability of the payments infrastructure, and prevailing payment behaviors.

As an example, below is the benchmark for one country we have worked in and how it compares to 70 other global markets across seven broad categories:

Group of Indicators	#	Indicator	Country's position
Composite	**1**	**Cashless economy maturity rating**	40
Socio-demographic	2	Share of population with Internet access	35
Macroeconomic	3	GDP per capita (as per PPP)	40
	4	Cash in circulation to GDP	54
	5	Share of shadow economy to GDP	63
Banking infrastructure	6	Bank offices per 100,000 capita	15
	7	ATMs per 1,000 people	6
Banking services maturity	8	Share of adults with bank accounts	29
	9	Online banking penetration[2]	15
	10	Household debt,% to GDP	48
Payment infrastructure	11	POS terminals per 100,000 capita	30
	12	POS terminals per merchant outlet	23
Payment behavior of the population	13	Percentage of cash in consumer expenditures	33
	14	Share of cash withdrawal to consumer expeditures	57
	15	Transactions per 1 card in circulation	11
	16	Credit card penetration	47
Analysis of expenditure categories: penetration of cashless payments	17	convenience stores / food	28
	18	Taxes and utilities	56
	19	Online retail	64

Source: Visa Consulting & Analytics benchmarking analysis

Composite rating

● Below benchmark ● Benchmark ● Ahead of benchmark

The analysis reveals that the country benefits from one of the world's most advanced banking and payment infrastructures, yet it is held back by disproportionate ATM withdrawals, the volume of cash in circulation, relatively low levels of online retail spending, and the prevalence of cash-on-delivery as an e-commerce payment mechanism. The types of strategies that will accelerate less cash in this country need to be targeted accordingly – and will be different from those that would work best in other countries.

Identifying 10 drivers of payment digitization

Globally, Visa has significant experience working on payment-digitization initiatives. These can include activation, usage, lifecycle management, and digital issuance efforts, which encourage individual consumers to turn to digital payments for more of their everyday spending. Similarly, loyalty, reward, and incentive programs can steer more consumers away from cash.

Meanwhile, acceptance actions (e.g., the roll-out of contactless terminals) can help to capture more everyday spend. Beyond these initiatives, VCA has identified 10 drivers of at-scale payment digitization.

We analyzed 18 countries in detail to develop payment digitization drivers. Frequency metric translates into the number of countries where we witnessed the use of the specific driver. Full circle means ~100% countries analyzed, ¾ - 75%, half circle – 50%.

Category		Driver	Frequency	Good examples	Market
Regulatory	1	Promotion of card acceptance		Mandatory card acceptance	Greece
	2	Tax incentives to encourage consumers and merchants to use digital payments		Introducing a business license and related tax instead of traditional charge	Kenya
	3	Encouraging citizens to use non-cash payments		Card use tax incentives	South Korea
				Tax deduction for electronic payments for services typically provided by the shadow economy	Sweden
Technologies	4	Development of technologies to facilitate non-cash transactions		Simple Peer-to-Peer (P2P) money transfer and shopping solutions	China
Infrastructure	5	Inexpensive acquiring solutions for micro-merchants		Enable smaller merchants to have settlements made on prepaid cards	Brazil
				Subsidizing terminals for micro- and small businesses at the expense of a fund created by the largest market players	Poland
	6	Creating additional free sources of cash		Cash-at-Point-of-Sale (POS)	Australia
Products	7	Promotion of cash payments for services		State super-apps to pay for services	UAE
	8	Development of targeted lending without cash out options		Buy now, Pay later solutions	India
Behavior	9	Increasing public financial literacy		Financial literacy lessons at schools	Canada
	10	Promotion of non-cash deposits		Market Money Funds for individuals	China

From this selection of drivers, it is possible to select the type of initiative that better addresses each market's challenges.

In recent years, a wide range of initiatives has been applied globally – with many valuable lessons learned.

Source: Visa Consulting & Analytics analysis

Four recommendations for financial institutions and governments

Below are four approaches that are likely to impact several circumstances and can be highly effective and relevant.

#1 Investigate the opportunity for regulatory solutions

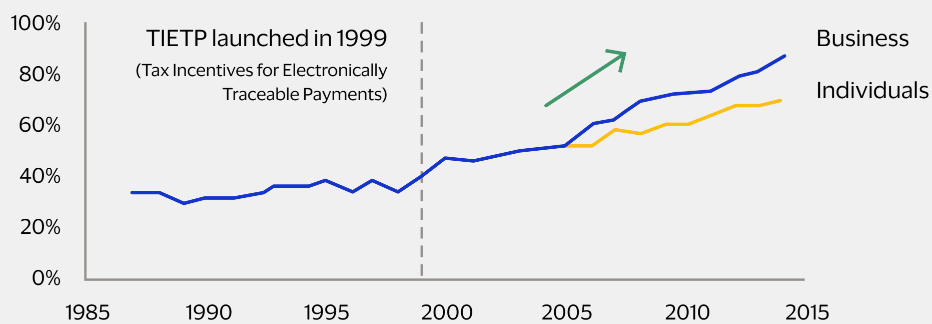
Across the world, some of the most effective measures to accelerate cash reduction have included tax incentives, with examples coming from countries such as South Korea and Sweden.

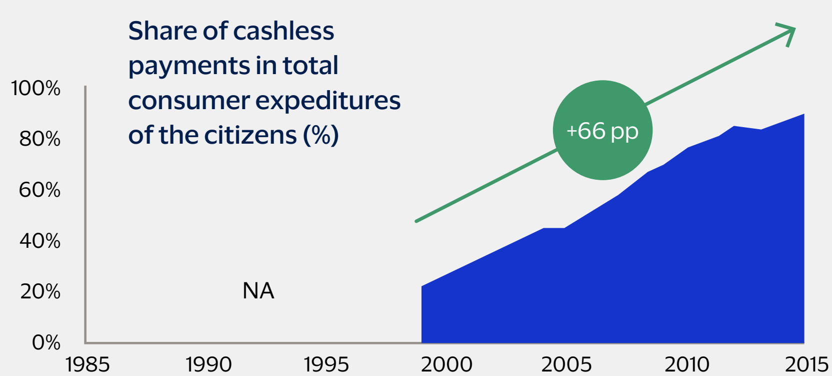
Here are two examples:

Introducing tax incentives to encourage consumers and merchants to use digital payments

South Korea

Share of taxpayers among all income-generating entities (%)





In 1999, the TIETP (Tax Incentives for Electronically Traceable Payments) initiative was launched, and businesses that accepted card payments became eligible for a 10 percent tax incentive (rising to up to 30 percent in 2013).

This coincided with a strong increase in the related tax take and, over the next 15 years, the share of electronic payments as a percentage of consumer expenditure rose by 66 percent.

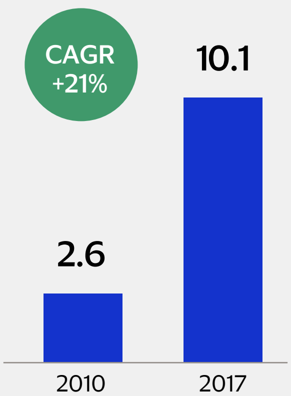
Source: World Bank Group, Can Tax Incentives for Electronic Payments Reduce the Shadow Economy, Jan. 2017, https://openknowledge.worldbank.org/handle/10986/25945

Introducing tax incentives for digital payment in traditionally cash-heavy environments

(refurbishments, renovations, housekeepings, etc)

Sweden

Tax relief for domestic service work



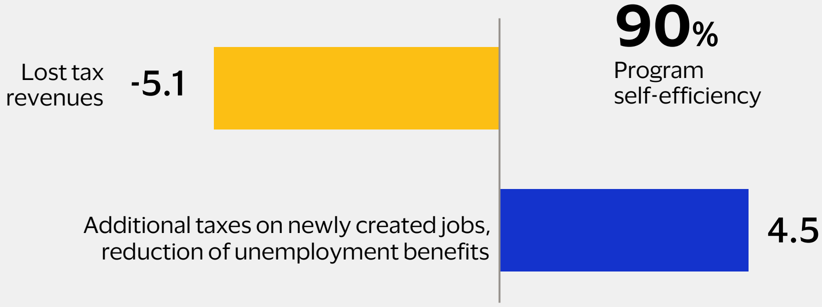
11% of the total cash consumer expenditures of the Swedish population in 2017

30% Assuming tax relief covers approximately 30% of the total cost of service

~10 percent of Swedes took advantage of the tax reduction in 2018

About 21,000 companies received payments 50,000 people were hired as a result of the program.

Tax relief for domestic service work financial results (USD billion), 2018



90% Program self-efficiency

In 2008, the government introduced a mechanism for customers to apply for tax deductions from their contractor who, in turn, applied to the tax authorities for a waiver of up to 50 percent. An electronic invoice was then issued to the customer for the remaining works.

From a tax revenue perspective, it brought a dramatic increase to electronic payment volumes, and drew large numbers of people into the financial mainstream.

It was also largely self-liquidating as the tax deductions were almost entirely offset by the increase in collection rates.

Sources: The Swedish Tax Agency, https://www.skatteverket.se/servicelankar/otherlanguages/inenglish.4.12815e4f14a62bc048f4edc.html

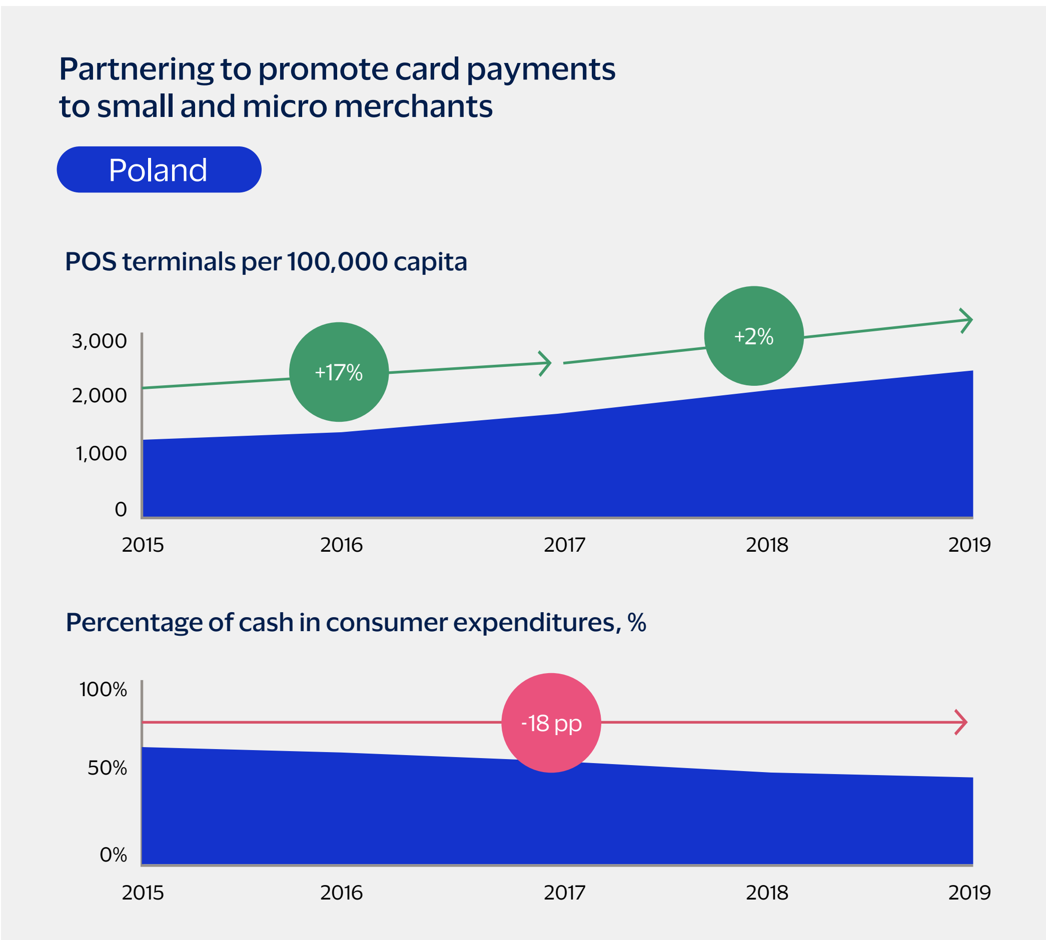
Everywhere in the world, governments are powerful economic players and generate vast payment flows. Alongside tax incentives, there are also opportunities for governments to promote digital payments in their own operations – through, for example, contactless ticketing in public transport networks, acceptance of digital payments for government-provided services, fees and fines, and the disbursement of social security payments through prepaid cards.

As such, governments are important stakeholders who can help influence the road to using less cash. Many have found that, by popularizing digital payments, they are able to pursue public policy solutions, thereby improving efficiencies and everyday experiences for citizens.

#2 Look at how to partner across the payment ecosystem

Payments players can identify and unlock opportunities for market-wide growth and development through collaboration. If an acceptance or reputational issue arises, for example, how can they work together to remediate it? If consumers still associate debit products with ATM withdrawals, how can payments partners collaboratively work to change perceptions and to drive POS volumes?

On their own, individual financial institutions can increase the use of their own digital payment solutions (through, for example, usage and activation programs). But, if they work together to overcome larger barriers, the impact can often be beneficial many times over.



Back in 2015, the Polish government was keen to drive the growth of digital payments.

The key market players (composingthe payment systems alongside the largest issuers and acquirers) formed the Cashless Poland Initiative – to subsidize card acceptance charges for small and micro merchants and introduce the latest generation of contactless terminals nationwide.

The penetration of POS terminals increased dramatically, and the share of electronic payments as a percentage of consumer expenditure rose by 18 percent, during the next four years.

Source: Visa data

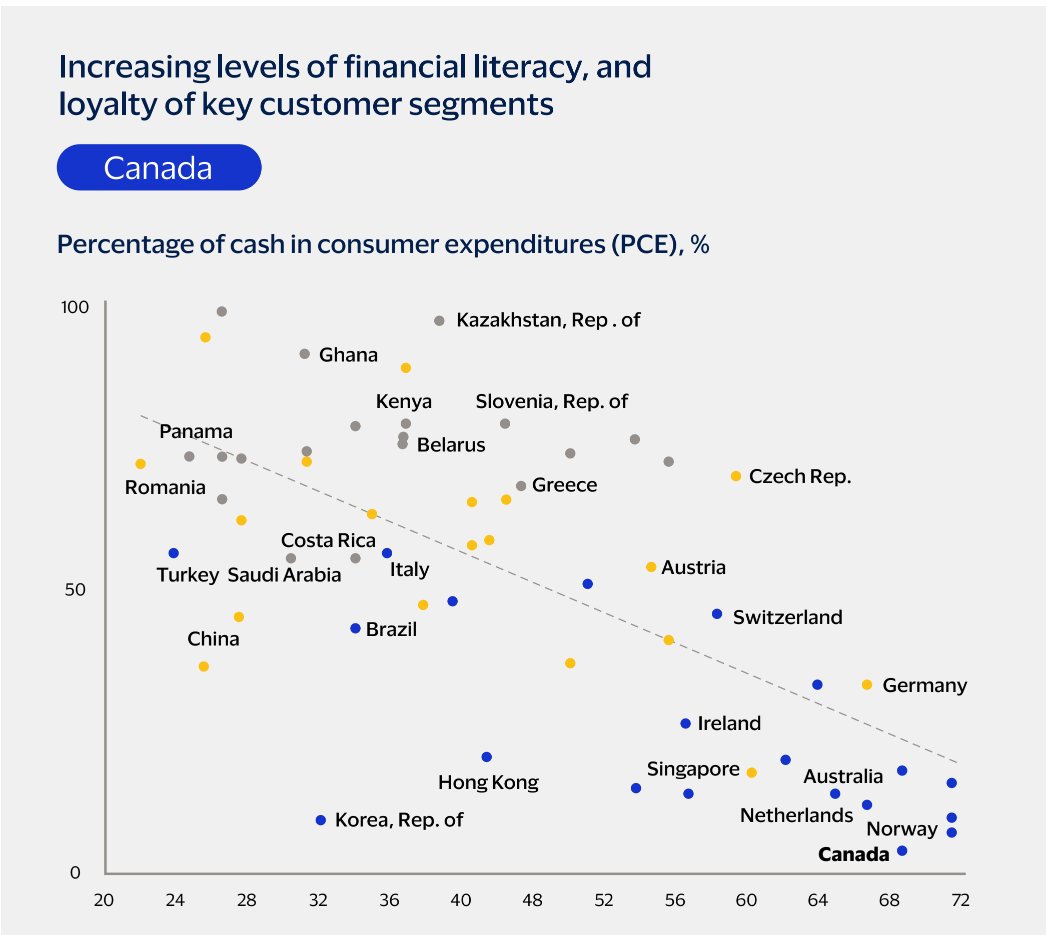
In several parts of the world, one of the consequences of the pandemic was the way stakeholders from across the payment ecosystem came together to develop and deliver funds disbursement programs. These initiatives were made available for governments to meet the challenges caused by the pandemic, including the channeling of funds promptly and effectively to vulnerable, mostly unbanked segments of the population. This is just one example of the transformative impact of ecosystem-wide initiatives involving the public sector, the banking and fintech community, and payment networks.

#3 Explore the opportunity for financial literacy programs

Across the world, there is a strong correlation between degrees of cash and levels of financial literacy. It therefore follows that, by investing in financial literacy programs, higher levels of digitization of payments should follow. As a related benefit, by investing in these programs, banks can enhance their reputations and secure higher levels of loyalty.

These programs can also be a good opportunity to strengthen ties with government and other organizations – which can lead, in turn, to other initiatives to accelerate reducing cash.

Figure 1



Source: Global Financial Literacy Excellence Center (GFLEC), S&P Global FinLit Survey, 2015

A good example comes from Canada, a country which benefits from unusually high levels of financial literacy and digitization of payments.

In this country, financial literacy lessons are established as a mandatory part of the school curriculum.

The initiative is supported by banks – most of which enable children to open an account, either with their parents (from any age) or independently (from the age of 13 years).

Another example is from Commonwealth Bank Australia, who launched Start Smart, a free, online, financial education program offered to school-aged students across Australia to help them prepare for their futures. Since it was founded in 2007, more than three million students have participated in Start Smart, making it the largest program of its kind in the world.[2]

[2] Commonwealth Bank Australia, Start Smart, https://www.commbank.com.au/about-us/opportunity-initiatives/opportunity-from-education/start-smart.html

#4 Take full advantage of existing product and service solutions

The payment ecosystem has been working for many years to digitize payments, and several ready-made products and services are already available.

One example is Cash-at-POS, which enables people who are paying by card to receive a cash advance at any participating retailer. If you want to encourage digitization of payments, promoting free, easy cash advances may seem counterintuitive, but the feature has been shown to encourage wider card acceptance and usage. Retailers like doing this because their purchase values tend to increase, while cash-handling costs tend to decrease. Consumers like cash advances because they are a convenient way to obtain "ready cash" while shopping, and banks also participate because cash advances encourage and normalize POS transactions.

Another example is Visa Tap to Phone, which allows merchants to turn their phones into POS devices and to securely accept payments from contactless cards and NFC-enabled mobile wallets. It is another way of extending acceptance to otherwise hard-to-reach merchant segments – by reducing the cost and complexity of acceptance and avoiding the need for any dedicated hardware.

In addition, the popularity of "buy now, pay later" (BNPL) programs (i.e., installment payments, installment loans, and any point-of-sale lending solution), has accelerated and is showing no signs of slowing. The rise of enabling technologies, such as Visa's network-based solution, spells opportunity for issuers to bring new BNPL functionalities to their customers.

How we can help

With global experience, deep analytical capabilities, and a proven methodology, Visa Consulting & Analytics (VCA) is ideally positioned to work with clients to pursue digitization of payments initiatives.

We can work directly with public sector organizations, and with payment industry bodies of forums. We can also work with individual financial institutions, to advise on how they can benefit from market-wide digitization of payments initiatives, or simply to accelerate the level of payment digitization among their own customers.

About Visa Consulting & Analytics

We are a global team of hundreds of payments consultants, data scientists and economists across six continents.

- Our consultants are experts in strategy, product, portfolio management, risk, digital and more with decades of experience in the payments industry.
- Our data scientists are experts in statistics, advanced analytics, and machine learning, with exclusive access to insights from VisaNet, one of the largest payment networks in the world.
- Our economists understand economic conditions impacting consumer spending and provide unique and timely insights into global spending trends.

The combination of our deep payments consulting expertise, our economic intelligence and our breadth of data allows us to identify actionable insights and recommendations that drive better business decisions.

For help addressing any of the questions raised in this paper, please reach out to your Visa Account Executive to schedule time with our Visa Consulting & Analytics team, email VCA@Visa.com or visit us at Visa.com/VCA

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Annex 1: Data Figure 1

Country	Financial literacy level	Share of cash in PCE, %	Group (place in cashless maturity rating)
Norway	71	11%	1-20
Sweden	71	9%	1-20
Korea, Rep. of	33	11%	1-20
New Zealand	61	21%	1-20
Canada	68	6%	1-20
Denmark	71	17%	1-20
Australia	64	16%	1-20
Ireland	55	27%	1-20
Finland	63	34%	1-20
Israel	68	20%	1-20
Netherlands	66	14%	1-20
France	52	16%	1-20
Brazil	35	44%	1-20
Belgium	55	16%	1-20
Switzerland	57	47%	1-20
Hong Kong	43	22%	1-20
Spain	49	51%	1-20
Turkey	24	57%	1-20
Italy	37	57%	1-20
Chile	41	48%	1-20
Singapore	59	19%	21-40
Portugal	26	37%	21-40
Germany	66	34%	21-40
Austria	53	54%	21-40
South Africa	42	58%	21-40
Serbia, Rep. of	38	88%	21-40
Estonia, Rep. of	54	42%	21-40
Nigeria	26	93%	21-40
Poland, Rep. of	42	65%	21-40
Mexico	32	72%	21-40
Argentina	28	62%	21-40
China, P.R.: Mainland	28	45%	21-40
Kuwait	44	66%	21-40
Indonesia	32	73%	21-40
Latvia	48	38%	21-40
Japan	43	59%	21-40
Lithuania	39	48%	21-40
Romania	22	72%	21-40
Czech Rep.	58	70%	21-40
Malaysia	36	64%	21-40
Kenya	38	78%	41-60
Slovenia, Rep. of	44	79%	41-60
Kazakhstan, Rep. of	40	96%	41-60
Greece	45	68%	41-60
Saudi Arabia	31	55%	41-60
Philippines	25	74%	41-60
Slovak Rep.	48	74%	41-60
Colombia	32	74%	41-60
Hungary	54	72%	41-60
Russian Federation	38	75%	41-60
Bulgaria	35	78%	41-60
Thailand	27	66%	41-60
Peru	28	73%	41-60
Egypt, Arab Rep. of	27	98%	41-60
Botswana	52	76%	41-60
Belarus, Rep. of	38	76%	41-60
Cameroon	38	75%	41-60
Costa Rica	35	56%	41-60
Ghana	32	91%	41-60
Panama	27	73%	41-60