The power of households – moving the needle on sustainable behaviour



The power of households for sustainability and for financial services

How much influence can we, personally, have on the environment, pollution, and climate change?

The truth is, as an individual, our impact is negligible. But, as a cohort of environmentally aware consumers, our influence can be profound. And the most meaningful way to magnify our individual impact is to join forces with those around us – starting with the other people in our household.

That's because households are responsible for nearly three quarters of global carbon emissions. 1 Across the world, 96% of the population are part of a households. 2 And the type of decisions we tend to make at a household level have by far the biggest influence on our collective carbon footprint.

So, what's the relevance for Visa, our clients, and other members of the payment and banking ecosystems?

The fact is, payment and financial data can provide a direct line-of-sight to people's everyday consumption behaviours. This, in turn, can provide insights into their estimated environmental impact. And, with enablers like open banking and open data, these insights can be extended to the household level – helping households to understand their estimated environmental impact and the ways it could be improved.

At the same time, many banks and other financial institutions (FIs) are looking at how best to provide a more holistic service, not just to individuals, but also to wider households and, at the same time, acquiring new generations of customers.

By bringing these two factors together – household-level environmental performance and household-level financial services – the value for FIs and consumers alike could be considerable.

To add to the rationale, there is a strong desire to make a difference. Around two thirds of households say they are willing to make lifestyle compromises to the benefit of the environment.³ And, as we all know, sustainability is looming ever larger on today's consumer agenda.

In this paper we investigate the impact of consumers and households on global emissions; we look at the trend among FIs and other organisations to target and serve entire families or households; and we look at the way these two factors could converge – really moving the needle on sustainable behaviour.

- Druckman, A., Jackson, T. (2016). Understanding Households as Drivers of Carbon Emissions. In: Clift, R., Druckman, A. (eds) Taking Stock of Industrial Ecology. Springer, Cham. https://doi.org/10.1007/978-3-319-20571-79
- 2. Pew Research Centre, With billions confined to their homes worldwide, which living arrangements are most common? 2020: https://www.pewresearch.org/short-reads/2020/03/31/with-billions-confined-to-their-homes-worldwide-which-living-arrangements-are-most-common/

 OECD, How green is our household behaviour, 2023: https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/06/how-green-is-household-behaviour 6017165e/2bbbb663-en.pdf



Why households have a key role to play in climate action

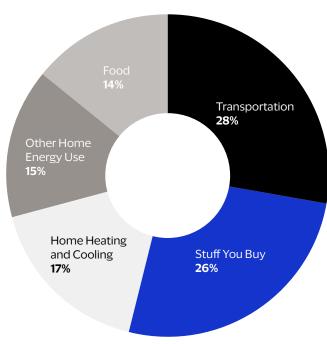
Impact: how our households influence the world's carbon emissions

Many academic studies rank households as the single biggest source of global emissions.

One of the most influential studies states that carbon emissions caused by household consumption are accountable for 72% of total global emissions.⁴ Another suggests that, with a combination of behavioural changes and energy efficiency initiatives, there is the potential to mitigate more than 95% of these household emissions by 2050.⁵

Going down to another level of detail, it becomes clear that the biggest volume of emissions spring from the decisions we tend to make as a household – including the things we eat, how we travel, how we power our homes, and where we go on holiday.

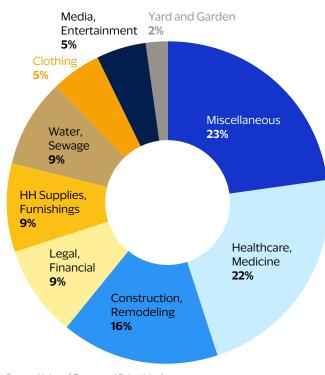
The sources of carbon emissions for a typical consumer



Source: Union of Concerned Scientists .6

The decisions we tend to make as an individual have far less impact. Even when buying goods and services, it's the household-level purchases that tend to have bigger environmental impact – like home furnishings and home improvements.

The breakdown of emissions from The Stuff We Buy



Source: Union of Concerned Scientists .7



Druckman, A., Jackson, T. (2016). Understanding Households as Drivers of Carbon Emissions. In: Clift, R., Druckman, A. (eds) Taking Stock of Industrial Ecology. Springer, Cham. https://doi.org/10.1007/978-3-319-20571-7-9

Dubois, G. Sovacool, B. (2019). It starts at home? Climate policies targeting household consumption and behavioral decisions are key to low-carbon futures, Energy Research & Social Science, Volume 52, https://www.sciencedirect.com/science/article/pii/S2214629618310314

^{6.} Union of Concerned Scientists, Cooler Smarter: Geek Out on the Data!, 2019: https://www.ucsusa.org/resources/cooler-smarter-geek-out-data

^{7.} Ibic

Influence: how spending decisions are driven at the household level

Research shows that the spending behaviours of individuals are largely determined by the households they happen to live in. Basic attitudes, food preferences, travel choices, shopping behaviours, and life decisions all tend to be formed at the household level – rather than being purely individual choices.

One survey shows that 88% of buying decisions are made or discussed at home, and those decisions that require the highest levels of consideration – like what car to buy or which financial product to apply for – almost universally involve the home. 8

Although spouses or partners tend to have the biggest say, influencing 73% of spending decisions, children are very much involved – even very young ones. 9 In the US, for example, 90% of US parents said their under-18 children influenced their purchasing decisions, with top considerations including the brands to favour (52%), the product features that are important (48%), and the retailers to frequent (41%). 10

And it's not just family-level spending behaviours. People who live in shared houses often plan, make, and manage a whole range of shared expenses – as evidenced by the range of apps that have emerged to help them, like Shelf, HyperJar, and Splitwise.

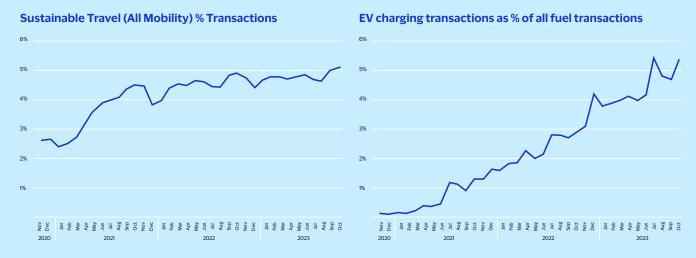
Intent: how our households are increasingly engaged with sustainability

As we explored in a previous paper, <u>The Rise of the Sustainable Consumers</u>, a sizeable cohort of today's consumers cares deeply about the environment and want to live more sustainably. But they are not always sure how to make a difference, what impact they could have, or what changes they could make in their day-to-day lives, big or small. And they are open to brands that can guide them.

Being sustainably minded cuts across all social, political, and geographic divides. This is especially evident amongst younger age groups. Many brands approach and address these environmentally aware consumers as individuals, on a one-to-one basis, promoting more sustainable products and propositions. By addressing them at the household level, this united, value-driven cohort of customers presents a new segment opportunity to forward-thinking and value-driven organisations.

Also, the household level shift to sustainability is well established. A cross-countries study by the OECD indicated that two-in-three households say they would be willing to make lifestyle compromises for the good of the environment. Similarly, 43% of households say they have already installed low-emissions technology. And most (60%) say have selected a renewable energy electricity tariff or would be interested if the option were available.

An analysis of Visa global payment transaction data reveals progressive rapid growth in spend volumes on sustainable products and services, such as electric vehicle (EV) charging and low-carbon forms of travel. By mid-2024, more than 5% of global transactions processed by Visa were connected to sustainable products and services, and are forecast to continue to grow.



- $8. \quad \text{Business Wire, Nearly 90\% of Purchase Decisions and Discussions are Made at Home, 2019: } \underline{\text{https://www.businesswire.com/news/home/20190220005163/en/}}$
- 10 Porch Group Media, Marketing to the Generations 90% of Parents Say Their Kids Influence Purchase Decisions, 2024:
- https://porchgroupmedia.com/blog/marketing-to-the-generations-kids-influence-purchase-decisions/

 11. All brand names, logos and/or trademarks are the property of their respective owners, are used for identification purposes only, and do not necessarily imply product endorsement or affiliation with Visa.
- OECD, How green is our household behaviour, 2023: https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/06/how-green-is-household-behaviour 6017165e/2bbbb663-en.pdf
- nttp 13. Ibid



How and why banks are focussing on household-level finances

Many banks and FIs have established ways of delivering products and services to households. This can be seen with joint accounts, mortgages, credit cards, home insurance products, and even children's accounts. These solutions solve the needs of an entire household and increase engagement among its members.

What's different now is that forward-thinking banks are beginning to view households as a single, cohesive economic unit, and offer them tightly integrated or bundled solutions – rather than simply promoting a collection of complementary but entirely separate products and services.

Household level finances - a sound strategic rationale



Better segmentation and insights

When it comes to customer insights, household-level data can give FIs a superpower. By aggregating data from different household members, a more complete picture emerges. Customer profile data can be supplemented with account relationship data. Also, FIs can identify 'next action' and 'next best product' recommendations with far more precision and specificity.



Better targeting

From a targeting perspective, household-level data enables FIs to add to their campaign repertoire by developing and delivering more data-driven marketing campaigns.



Better experiences

understanding of household members and relationships, new account onboarding becomes slicker and more seamless; campaigns become more relevant, enabling customers to feel heard and understood; and the risks of members of the same household receiving multiple identical offers - which can be offputting and alienating

- can be mitigated.

With a clearer, deeper



Better early warnings

With a wider, more holistic view of household circumstances, and the behaviours of all household members, Fls are better equipped to spot potential risks (whether that be credit risks or defection risks) and act more quickly with relevant risk management or customer retention mitigations.



Better customer lifetime value

People have tended to pick a bank at a young age and stick with it a long time – so a great acquisition strategy is to engage with younger generations via their parents, laying the foundations for long-term relationships.



Across the banking world, a trend towards household-level finances is becoming clear. As ever, some of the more interesting innovations are emerging from the fintech and neobank community, with challengers using digital technologies to differentiate their offers – often by setting up mechanisms for communication, financial analysis, and real-time coordination between household members.

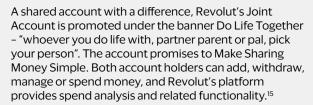
Many of these initiatives have been widely reported in the media, including these two examples¹⁴

Example #1

Revolut

Joint account | Europe

Save | Spend | Manage



Revolut's recent business performance indicates the success of this type of proposition – with 12m new customers added in a year, plus a 38% increase in customer balances, and a 41% increase in paid subscriptions.¹⁶

Example #2

Greenlight

Greenlight | USA

Educate | Save | Spend | Manage



When it invested in the business, Andreessen Horowitz, reported "Greenlight has established itself as a trusted family bank, serving 3 million parents and kids, with a 4.8/5 app store ranking and over 160,000 reviews. The company has more than tripled year over year revenue, more than doubled the number of parents and kids on its platform, and doubled the size of its team within the past year." 18

It's not just banks and FIs A newfound focus on households is not restricted to banks.

For example, some media planning services now enable advertisers to reach every connected device within a multi-screen household – an approach to advertising called householding that takes account of today's purchasing behaviours and regards every person within a home as an influencer.

Similarly digital brands and platforms like Amazon, Apple, Netflix and Spotify¹⁹ offer household accounts. While one of the purposes of such propositions is to avoid revenue leakage (which happens when people share login credentials), they also improve the user experience for household members – boosting customer satisfaction, loyalty, and lifetime value.

For example, with Apple Family Sharing, household members can access a range of services, like Apple Music and Apple TV+, they can also share an iCloud storage plan and a shared photo album, and they can even share their locations and help to find each other's missing devices.²⁰

It's an area where we can expect to see further evolution and innovation. There's a big opportunity here to recognise the interdependence and close financial relationships within households, and develop propositions that help them to manage both individual and collective finances. And, as we discuss in the following section, sustainability solutions could become a central component and a powerful lever.



 Revlout: Revolut's revenues surpass \$2.2bn, with record profits of \$545m in 2023, 2024: https://www.revolut.com/news/revolut s revenues surpass 2.2bn with record profits of 545m in 2023/

16. Revolut, Revolut's revenues surpass \$2.2bn, with record profits of \$545m in 2023, 2024:

https://www.revolut.com/news/revolut s revenues surpass 2 2bn with record profits of 545m in 2023/

- Greenlight: https://greenlight.com/
 Andreessen Horowitz, https://a16z.com/announcement/investing-in-greenlight/, 2021: https://a16z.com/announcement/investing-in-greenlight/
- All brand names, logos and/or trademarks are the property of their respective owners, are used for identification purposes only, and do not necessarily imply product endorsement or affiliation with Visa.
- 20. Apple: https://www.apple.com/uk/family-sharing/



How to bring the two dimensions together - household sustainability and household finances

As we discuss in our previous paper, <u>The Rise of the Sustainable Consumers</u>, payment data can provide a direct line-of-sight to people's consumption and, hence, their environmental impact. Fls have a unique opportunity and ability to identify those customers who care most about sustainability, engage with them meaningfully, and deliver a valuable service that helps them understand and adopt more sustainable behaviours.

But it's possible to go further. Much further.

By adding in the power of open banking, open data, and data enrichment, it becomes possible to extend this approach – beyond card-based payment products to all financial products, and beyond individuals to entire households.

Providers such as Greenlight²¹ in the US already use open banking's data-sharing model and capabilities to enable household-level financial services. As one recent article puts it: "this allows families to connect their accounts and manage finances seamlessly. By integrating open banking technology, parents can send money instantly to their children, teach financial literacy and provide a controlled environment for financial education."²²

Then, with data enrichment capabilities, it becomes possible to transform financial transactions into holistic sources of consumer information and categorise spending into comprehensive yet easy-to-follow insights – and a great example of data enrichment is the partnership between Tink and ecolytiq (see below).

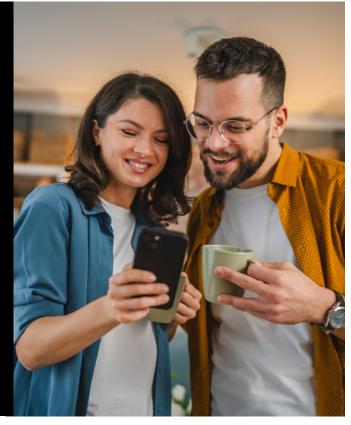
Tink and ecolytiq – an example of data enrichment in open banking

Tink, a leading open banking platform, and Visa partner ecolytiq, a climate engagement solution, are collaborating to incorporate financial and sustainability-focused coaching into a more seamless experience.

Carbon tracking services will help FIs to empower their customers by providing awareness of the estimated impact their purchases have on the environment using open banking functionality to access enriched transaction data in real time. To achieve this, ecolytiq's suite of climate engagement products is being made available on the Tink platform through a single API, removing the need for FIs to integrate multiple solutions.²³

With this approach, information on all types of spending – including card-based payments, wallet payments, direct debits, standing orders, aggregated transactions, and recurring transactions – can be captured and enriched with sustainability data. This means that customers and their households can get a single, holistic, aggregated view of their total carbon footprint.

And, with a good, easy, accessible banking experience, complemented by sustainability-related tips and offers, households have the means, the motive, and the opportunity to minimise their impact.



^{21.} All brand names, logos and/or trademarks are the property of their respective owners, are used for identification purposes only, and do not necessarily imply product endorsement or affiliation with Visa.

^{23.} Tink, Tink will embed ecolytiq's solution into its platform to scale sustainability services across Europe, 2023: https://tink.com/press/tink-will-embed-ecolytiq/



^{22.} Pymnts.com, Capturing the US Family Dynamic Will Power Open Banking's Future 2024: https://www.pymnts.com/news/banking/2024/capturing-the-us-family-dynamic-will-power-open-bankings-future/

Latent demand from consumers for an aggregated view of their environmental footprint

While several banks now offer carbon tracking on individual products, research suggests that many consumers could be eager for an aggregated view that covers all their financial products.

In UK research commissioned by Tink, 37% of consumers said they would like their bank to do more to help them reduce their environmental impact - and a third (32%) said they specifically want their bank to provide an overview of their CO2 emissions across all their bank accounts in one place.24

If this aggregated view were to be extended from the individual to the household, the rationale - and the impact - could be all the more compelling.

Data visualisation, education, and gamification - lessons on the impact

When developing sustainable propositions, FIs can draw on learnings from several other sectors.

To encourage and enable energy efficiency, utilities around the world have used a range of behavioural interventions, including data visualisation, framing, and gamification. The impact has been researched extensively, with utility firms increasing consumer awareness, building customer relationships, and driving loyalty.²⁵ In Australia, for example, the introduction of energy efficiency labels on home appliances increased the likelihood of consumers purchasing energy efficient appliances by 20%. Meanwhile, in Norway, the introduction of an energy app led to a 6.8% reduction in energy consumption among users.26

In the public transport sector, clear information on route options, journey times and timetables have contributed to significant behavioural shifts. In one example in the UK, bus trips increased by up to 22%, and walking trips by 13%.27

Closer to home, at Visa, we have seen the impact of strong sustainability propositions. For one client in Europe, we helped to develop an embedded climate engagement platform which, in its first year achieved a +10% average reduction in CO2e per transaction, up to 20% in spending, and more than two-fold in engagement with the mobile banking app.

Sustainable banking and finance services propositions inspiration from around the world

We are beginning to see some truly innovative and inspirational examples of how FIs are delivering sustainable propositions, often in partnership with utilities and other providers of sustainable products and services, with a focus on household-level spending and investments. Many of these have been widely reported in the media, including these two great examples28:

Example #1

Zopa Bank



BNPL for solar panels and EV chargers

Zopa Bank has partnered with Octopus Energy to help its customers finance the purchase and installation of solar panels and EV chargers.

Besides their sustainability credentials, solar panels from Octopus Energy can reduce household energy costs by up to 95% - yet they can also require a considerable upfront investment.

The new, integrated buy-now-pay-later (BNPL) solution allows households to spread the cost over up to 84 instalments over seven years. And the same approach is available for EV chargers.29

Example #2

FutureCard

Sustainable rewards



FutureCard is an award-winning proposition that describes itself as "the payment platform that helps you go green".

Partnering with a range of brands that offer sustainable products and services, FutureCard offers cashback of 5% or more on green spending.

Often, there is an emphasis on household-level items, like e-bikes, games consoles and home furnishings. Other benefits include rewards points to cash in with partner brands, interest (APY) on positive balances, and guides on living sustainably.30

An added opportunity for FIs going forward is to pitch propositions like these, not just to individual customers, but also to their households.

- Tink, Consumer demand for banking tools to track sustainability outstripping supply, 2023:
- https://tink.com/press/tink-fintech-sustainability-research/, Tink UK research on 2,000 consumers and 113 banking executives.
- TATA Consultancy Services, Gamification in utilities:
- $\underline{https://www.tcs.com/what-we-do/industries/energy-resources-utilities/white-paper/enterprise-gamification-utilities-win-engagement-game \\ \underline{https://www.tcs.com/what-we-do/industries/energy-resources-utilities/white-paper/enterprise-gamification-utilities-win-engagement-game \\ \underline{https://www.tcs.com/what-we-do/industries/energy-resources-utilities/white-paper/enterprise-gamification-utilities-win-engagement-game \\ \underline{https://www.tcs.com/what-we-do/industries/energy-resources-utilities/white-paper/enterprise-gamification-utilities-win-engagement-game \\ \underline{https://www.tcs.com/what-we-do/industries/energy-resources-utilities/white-paper/enterprise-gamification-utilities-win-engagement-game \\ \underline{https://white-paper/enterprise-gamification-utilities-win-engagement-game \\ \underline{https://white-paper/enterprise-game \\ \underline{https://white-paper/enterprise-gamification-utilities-win-engagement-game \\ \underline{https://white-paper/enterprise-gamification-utilities-win-engagement-game \\ \underline{https://white-paper/enterprise-game \\ \underline{https://white-game \\ \underline{https://whit$
- International Energy Agency, Behavioural insights for demand-side energy policy and programmes, 2020: https://userstcp.org/wp-content/uploads/2020/12/Users-TCP-and-IEA-Dec-2020-BI-report.pdf

- $All \ brand\ names, logos\ and/or\ trademarks\ are\ the\ property\ of\ their\ respective\ owners, are\ used\ for\ identification\ purposes\ only,\ and\ do\ not\ necessarily$ imply product endorsement or affiliation with Visa
- 29 Zopa Bank: https://www.zopa.com/blog/article/zopa-partners-with-octopus-energy
- 30. Future: https://www.future.green/



Towards holistic, household-level sustainability propositions

All the building blocks that FIs need to construct holistic, household-level sustainability propositions are available. True, some are still in the prototyping stage but, in general, FIs can draw from a whole range of readymade components.

So, what would a fully formed proposition look like, and what components could it include? The specifics will vary from FI-to-FI, market-to-market, and segment-to-segment. At Visa, based on our market knowledge and insights, our relationships, and our credentials in data analytics, we can work with clients to craft relevant propositions.

We have identified seven lifestyle categories that have a strong sustainability dimension. And, below we provide an indication of the potential breadth and depth of a sustainable proposition, the household-level context, and the key considerations for FIs:

Visa sustainable consumer dimensions

Lifestyle categories		Indicative proposition components	The house-hold level context	Key considerations for FIs
LIVE		Track, manage, reduce household emissions	US households alone generate ~5.5 GT of CO2e annually ²⁶	Make households aware of the carbon intensity of their day-to-day spend and potential impact Share a view of available, affordable and convenient sustainable alternative spend avenues Provide incentives and rewards for sustainable behaviour shifts Bundle incentives to maximize impact as multiple environmental behaviours go hand-in-hand
EAT	74	Shift eating habits to be more sustainable	24% of households consume red meat several times a week ²⁷	
BUY		Get rewarded on your sustainable spend	37% of households buy second-hand items – and 1-in-5 rent items ²⁸	
MOVE	0-0	'Tap-to-pay' for transport tickets	In 75% of households at least one person uses a car regularly – more than 1-in-2 say improved public transport incentivizes them to switch ²⁹	
TRAVEL	(M)	Offset vacation air- travel with donations	Household tourism accounts for an estimated 30% of the leisure travel market ³⁰	
SAVE	Æ	Save more and spend more sensibly	64% of teens rely on parents for financial education – but only 20% of parents have regular conversations at home ³¹	
INVEST	η <mark>Γ</mark> Ϋ́	Invest in Invest sustainable products	Of eligible households, 29% have installed solar panels, 30% heat pumps and 27% battery storage ³²	

- 31. OECD, How green is our household behaviour, 2023:
- $https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/06/how-green-is-household-behaviour_6017165e/2bbbb663-en.pdf$
- 32. Ibid
- 33. Ibid
- 34. Ibid
- $35. \quad Sch\"{a}nzel\,H,\,Yeoman\,I,\,Trends\,in\,family\,tourism,\,Journal\,of\,Tourism\,Futures,\,2015:\\ \underline{https://www.emerald.com/insight/content/doi/10.1108/JTF-12-2014-0006/full/html}$
- 36. Stockpile, Parents are Biggest Influence on the Way Teens Think about Money, 2022: https://www.prweb.com/releases/parents-are-biggest-influence-on-the-way-teens-think-about-money-832667145.html.
- OECD, How green is our household behaviour, 2023: https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/06/how-green-is-household-behaviour_6017165e/2bbbb663-en.pdf



How Visa can help

Through a combination of Visa Sustainability Solutions and Visa Consulting & Analytics, Visa provides direct access to a range of sustainability-focused advisory, data science, product solutions, and ClimaTech partnerships.

With our deep payments expertise, combined with our in-house sustainability experts, and our knowledge of your business performance and challenges, we are ideally placed to support you

in delivering the sustainability solutions your customers are looking for, and capturing the growth opportunity. Our advisory services span:

Discovery -

to achieve alignment and understanding of your aspirations and strategy.

Current state assessment and strategic roadmap -

to plot your current and target position on the sustainability maturity curve and help you prioritise initiatives aimed at bridging the gap.

Value proposition/product design -

to design and develop the proposition/ product, validating consumer attitudes and developing the go-to-market approach.

Product implementation and launch -

to guide you from detailed design to product launch.

In addition, our Sustainability Index data platform enables clients to:

- Analyse their customer base to identify and quantify the most sustainability-minded segments.
- Understand the key differentiating characteristics, needs and lifestyle indicators that set these segments apart from the wider customer base.
- · Identify the type of sustainability-related product features that will be most relevant and compelling to each segment.

Three key takeaways from this paper:

Households play a key role in determining spending decisions, as well as sustainability

With more and more households aiming to make sustainable spending choices, there is an opportunity to move the needle towards sustainable living by helping households act on their ambition.

There is a largely untapped opportunity for FIs increase their focus of households

By targeting households, FIs can improve their understanding of customer behaviours, while also building better, more tailored offers and, ultimately, retain the customer base across multiple generations.

Visa is uniquely capable of supporting Fls on this journey - drawing on our insights, expertise, relationships and data

We can offer a range of services that help clients achieve their goals, enable the flow of funds to sustainable causes, and liberate increased information and understanding on the totality of household spend.

Learn more

For help addressing any of the ideas or imperatives above, please reach out to your Visa Account Executive to schedule time with our Visa Sustainability Solutions team or send an email to SustainabilitySolutions@visa.com

You can also visit us at https://www.visa.co.uk/our-purpose/preserving-our-planet.html

Case studies, comparisons, statistics, research and recommendations are provided "AS IS" and intended for informational purposes only and should not be relied upon for operational, marketing, legal, technical, tax, financial or other advice. Visa Inc. neither makes any warranty or representation as to the completeness or accuracy of the information within this document, nor assumes any liability or responsibility that may result from reliance on such information. The Information contained herein is not intended as investment or legal advice, and readers are encouraged to seek the advice of a competent professional where such advice is required. When implementing any new strategy or practice, you should consult with your legal counsel to determine what laws and regulations may apply to your specific circumstances. The actual costs, savings and benefits of any recommendations, programs or "best practices" may vary based upon your specific business needs and program requirements. By their nature, recommendations are not guarantees of future performance or results and are subject to risks, uncertainties and assumptions that are difficult to predict or quantify. All brand names, logos and/or trademarks are the property of their respective owners, are used for identification purposes only, and do not necessarily imply product endorsement or affiliation with Visa.

