Payments 101: Credit and Debit Card Payments

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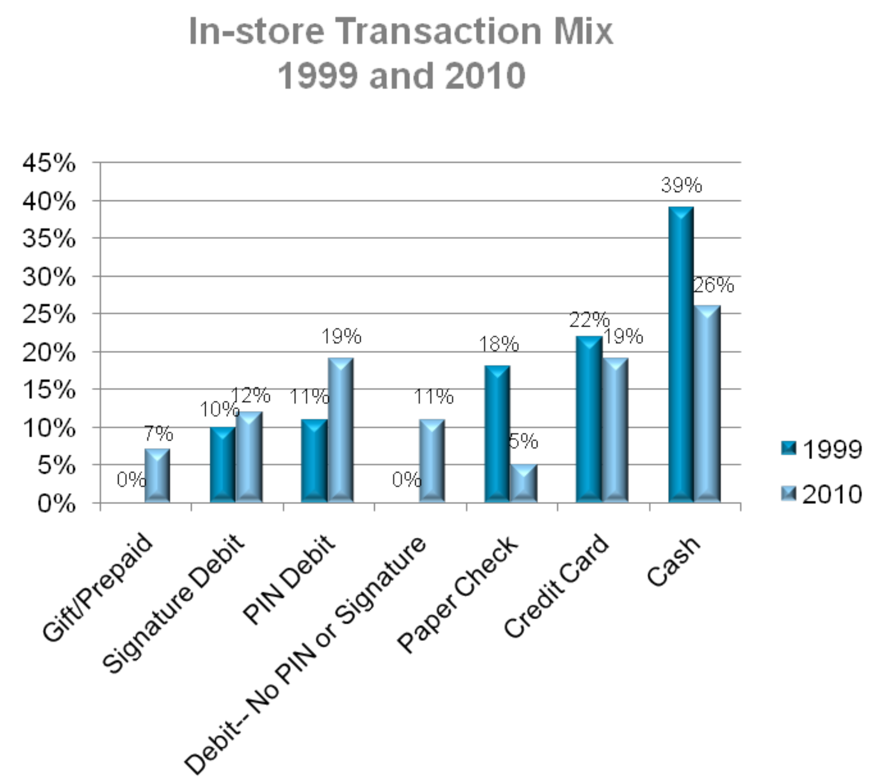
Agenda

- Introduction
  - Continued rise of Credit and Debit
  - Credit cards: Overview
  - Debit cards: Overview
- Key Credit and Debit Concepts
  - The Path of a Transaction
  - Interchange, Discount Fees, Chargebacks
  - Compliance & Fraud
  - Terminals and Point-of-Sale (POS) Hardware and Software and Connectivity
- Strategic Importance of Payments
  - Benefits of card acceptance for merchants and consumers
  - Understanding the payments mix
  - What to look for in a provider

Continued Rise of Credit and Debit

Credit and debit card transactions surpassed more than 50% of all non-cash transactions by 2006

- Credit and debit cards are preferred methods for consumers to pay for goods and services
  - Electronic payments provide an indispensable way for big and small merchants to conduct business
  - The trend is predicted to continue
- Cash transactions represent 25% of in-store purchases, down 39%
- Debit transactions represent 42% of all in-store purchases, up from 21% in 1999



Hitachi Consulting and BAI. "2010 Study of Consumer Payment Preferences," September 2010

Federal Reserve, "The 2007 Federal Reserve Payments Study."

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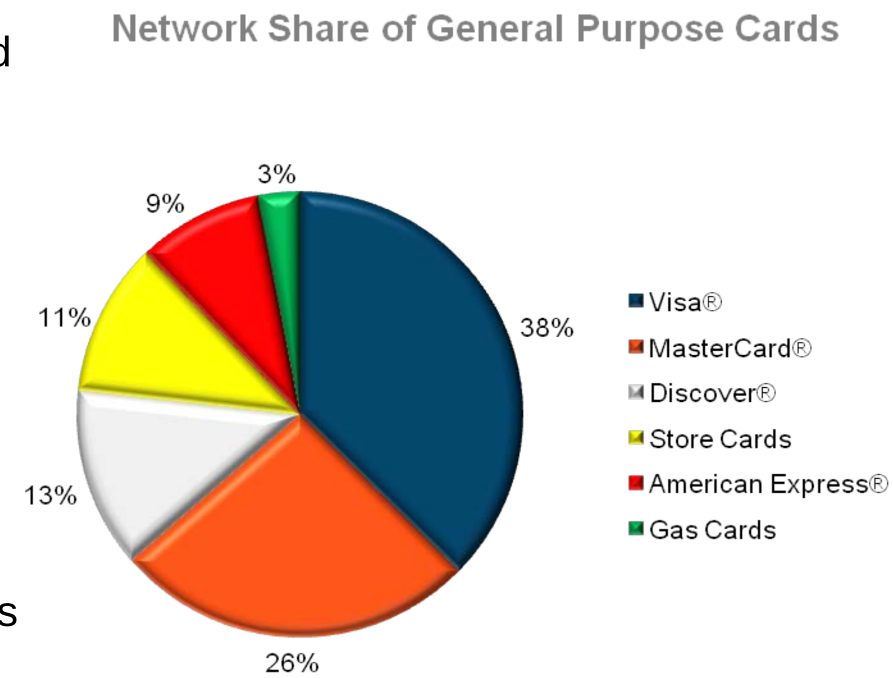
Credit Cards: Overview

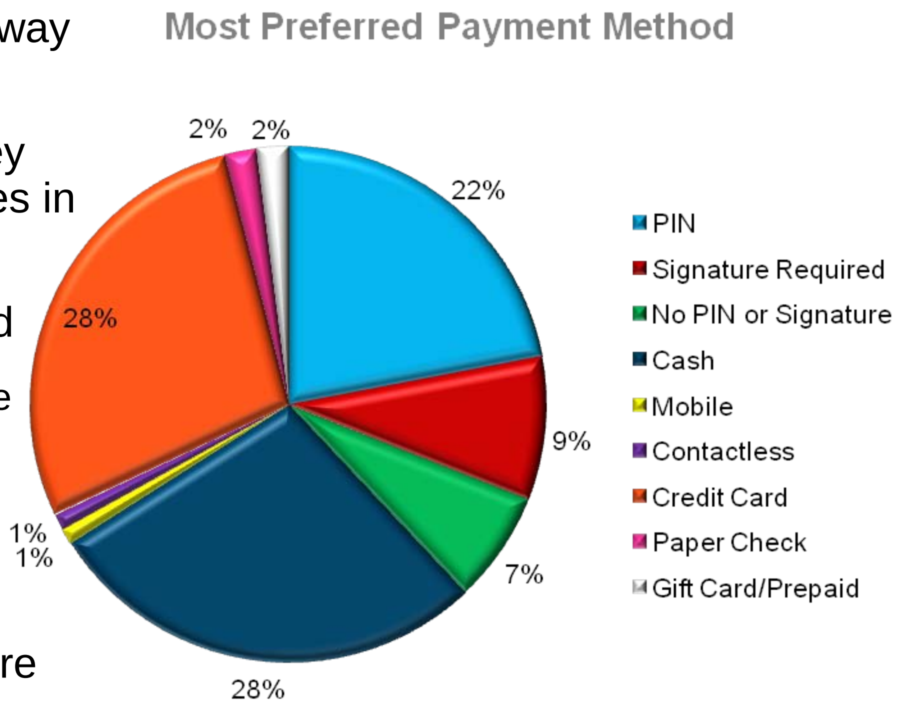
- The concept of charge cards date back to the 1920s
- The first product of revolving credit issued by a third-party bank and accepted by a large number of merchants was the 1958 Bank of America Corporation "BankAmericard"
  - Master Charge introduced in 1966 to compete with BankAmericard
  - BankAmericard evolved into the Visa® system; Master Charge evolved into MasterCard®
- Credit Cards accepted by most merchants
  - Visa represents 43%; MasterCard holds 36% of market share
  - 54% of cardholders pay their balances in full vs. 46% carry balance
  - 58% of all credit cards earn rewards



Source: Hitachi Consulting and BAI. "2010 Study of Consumer Payment Preferences," September 2010.

Debit Cards: Overview

- Debit now ranks as consumers' favorite way to pay
- Debit cards have become so popular they have overtaken credit in the United States in terms of dollar volume
- 2 forms: Signature-based and PIN-based
  - PIN-based transactions traditionally have lower fees for merchants, less risky
- Most consumers prefer PIN-based debit
  - More secure, faster, easier to use
- Debit rewards programs are growing more popular
  - Fees paid by merchants, enabling issuers to fund the programs



Source: Hitachi Consulting and BAI. "2010 Study of Consumer Payment Preferences," September 2010.

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Credit and Debit Landscape

Areas of credit and debit card landscape that have the greatest impact to merchants:

- Data security/PCI compliance
- Interchange
- Merchant's POS environment
- Ongoing regulatory focus
  - Durbin Provision of the Wall Street Reform Act:
    The provision requires the Federal Reserve Board to determine how much in interchange fees banks can charge retailers for debit card transactions
  - Merchants have the ability to choose over which debit network to route a transaction to ensure the lowest cost
  - Merchants can set a minimum amount for credit card acceptance and establish discounts or incentives to entice customers to pay with an alternative method

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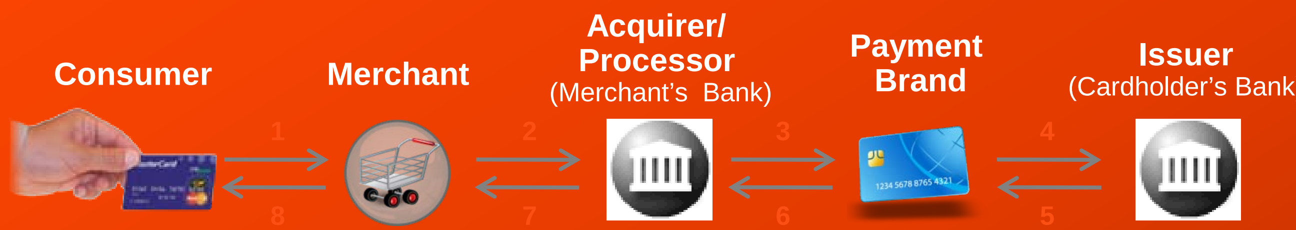
Path of the Transaction
Signature Debit

Authorization - Simplified Transaction Flow for Credit and Signature Debit



1. The consumer selects a card for payment. The cardholder data is entered into the merchant's payment system, which could be the point-of-sale (POS) terminal/software or an e-commerce website.
2. The card data is sent to an acquirer/payment processor, whose job it is to route the data through the payments system for processing. With e-commerce transactions, a "gateway" provider may provide the link from the merchant's website to the acquirer.
3. The acquirer/processor sends the data to the payment brand (e.g. Visa, MasterCard, American Express, etc.) who forward it to the issuing bank/issuing bank processor.
4. The issuing bank/processor verifies that the card is legitimate, not reported lost or stolen, and that the account has the appropriate amount of credit/funds available to pay for the transaction.
5. If so, the issuer generates an authorization number and routes this number back to the card brand. With the authorization, the issuing bank agrees to fund the purchase on the consumer's behalf.
6. The card brand forwards the authorization code back to the acquirer/processor.
7. The acquirer/processor sends the authorization code back to the merchant.
8. The merchant concludes the sale with the customer.

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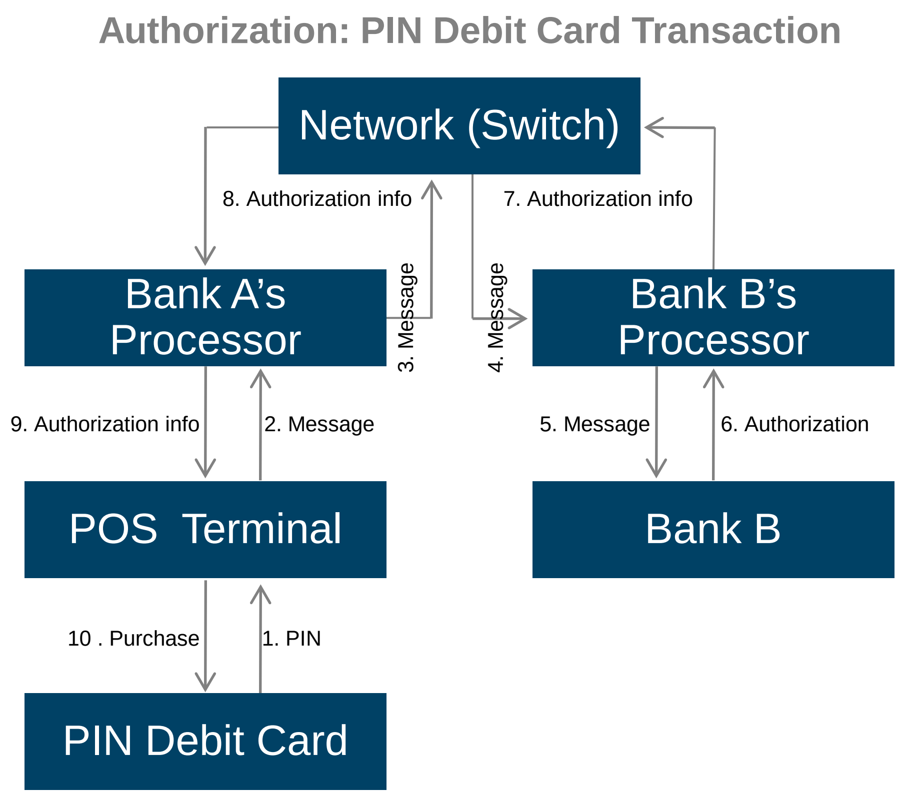
Path of the Transaction: PIN Debit

- PIN-based transactions have an additional step if the merchant and issuing banks belong to different EFT networks
  - –The transaction passes through the acquiring processor, then on to a gateway processor that acts on behalf of a national EFT network



Interchange

- Interchange is a fee:
  - Largest component of the discount fee
  - Charged to acquiring banks
  - Set by the payment brands (Visa®, MasterCard®, etc.)
  - Paid to the issuing banks

- The interchange fee is typically composed of two basic parts: 1) a charge representing a percentage of the transaction and 2) a flat transaction levy

- The interchange rate charged depends upon:
  - The network being used
  - The card type
  - How the payment is made
  - The industry and size of the merchant
  - The region or country where the purchase takes place

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Discount Fees and Chargebacks

Discount Fees:

- Charged to merchants by their merchant acquirers and include the interchange fee

- Varying methods in which discount fees are negotiated and charged

- May be bundled, where there is a set rate, including acquirer fees for its processing services, the payment-brand assessments, and network access fees.

Chargebacks:

- Result when an issuer charges back the purchase amount to the merchant

- Usually due to a customer complaint to the issuer

- Protect consumers
  - Fraudulent transaction, customer dispute, or a technical error

- Merchants can dispute a chargeback

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Compliance

The payment card industry is rapidly changing, fueled by technological advances in software, systems and hardware

- Surge in technology crimes - leading to stricter and more complex standards for merchants
- Payment Cardholder Industry Data Security Standard (PCI DSS) developed by Visa and MasterCard
- Liability magnifies if Merchant breach:
  - Banks and processors can reclaim losses as a result of breach
  - Brand damage – customers can lose confidence in a merchant
  - Potential lawsuits
  - Government oversight depending on the extent of the breach
- Failing to comply with the PCI DSS can also result in a merchant losing the right to offer credit card payment options and incur non-compliance fines

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Fraud

Credit cards top the list as the underground economy's most popular item of stolen data

- Internet has allowed cybercriminals to gain momentum
- First Data provides businesses with the TransArmor^{SM} solution
  - Payment security product embedded into a terminal that removes card data completely from the merchant environment
  - Dual layer of security, encryption and tokenization, to protect customers' sensitive information and limit merchant liability
  - Card number is encrypted when the card slides through the terminal and decrypted by the acquiring bank
  - Data is not stored at the merchant location
  - Shifts the burden of storing and protecting card data from the merchant to the payment processor

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Terminals and POS Hardware and Software

Terminals

- Terminals required to process electronic payments
- Merchants look for terminal that processes all types of transactions, reliable with ultra-fast processors, easy to use with built-in printers and touch-screen interface
- Small merchants rely on terminals for beginning to end functionality
- Larger merchants typically operate POS systems that integrate hardware and software

Peripherals

- Add-on devices that allow a merchant additional transaction functionality at the POS
- Other types of peripherals include contactless readers, for merchants who want to offer “wave and go” functionality
- The peripherals are typically compact and are a complement to the existing merchant transaction capabilities

POS Software

- Increasingly merchants are opting for payment functionality that is embedded within the POS system
- Requires the POS manufacturer’s software developers to code to a providers specifications
- Merchant benefits include consolidated reporting across payment types, decreased cashier error and single source provider of the POS system and payment interface

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Connectivity Options

- Cost, speed and customer convenience are key factors about which connectivity options make the most sense for a particular merchant
  - Dial-up: uses your existing phone line, terminal uses phone line to open a call to the processor, generally slower but it is readily available and a low cost solution, one phone line per terminal
  - Wireless: Doesn't require a phone line, portable, requires cellular service, typically has a printer and Payment Card Industry PIN Entry Device (PCI PED), ideal for service industries
  - IP and VPN: low cost solution that takes advantage of your existing IP network infrastructure, low cost, high-speed solution for merchants with established Internet infrastructure
  - Wi-Fi: uses your existing IP infrastructure, low cost, high speed solution, more complex to maintain and reliant upon an IP services provider
  - Dedicated or Leased Lines (aka 'Frame Relay'): faster throughput over a regular IP connection, the most costly option due to the required changes and upgrade to infrastructure, and requires dedicated technical resources (commonly used for large, national merchants with high-volume, multi-lane environments)

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Strategic Importance of Payment

Benefits for Merchants and Consumers

Developing a payments strategy can help merchants better plan for the future, keep pace with their competitors, and maximize their financial performance

Credit and debit benefits to merchants:

1. Easier-to-measure costs
2. Greater revenues
3. Improved security over cash
4. Reduced costs associated with handling cash
5. Improved reporting compared with cash, including online access to information, provides merchants with increased visibility

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Understanding the Payments Mix

Directing customers to a particular payment type seems to be the preferred method among some merchants

- Different approaches to encourage customers to pay with a particular payment type:

1. Rewards programs – can lower payments costs and increasing revenues. Merchants can apply cost savings to maintain program
2. Consumers have choices at the POS
3. The Durbin provision allows merchants to set a minimum amount for credit card acceptance, and to establish discounts or incentives to entice customers to pay with an alternative method

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What to Look for in a Provider

Knowing what to look for in a provider can help merchants stand apart from their competitors, maximize revenues, and minimize troublesome issues

- Security: provide the latest security trends, including tools that prevent fraud, facilitate PCI compliance, offer transaction data protection solutions, ensure compliance with all industry encryption standards
- Reliability: multiple flexible processing platforms and full data-center redundancy for maximum uptime reliability
- Relevant expertise and expert advice: dedicated account relationship management teams, be proactive, exceed expectations, provide timely explanation of compliance mandates and be their merchant's advocate within the industry
- Portfolio solutions that meet business needs: should offer competitive rates, transaction security, flexible billing and timely, accurate reporting options
- Innovation that helps grow business: keep up with the latest technology that increases the speed and accuracy of transactions for retailers and their customers

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