

PAYMENT PROCESSING 101

A MERCHANT'S GUIDE TO ALL THINGS PAYMENTS



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INTRODUCTION

Few things in life are free. Merchants sell goods and services and in exchange, consumers provide payments; this has been the system in place since cattle was the currency of choice. While the basic foundation of financial exchange remains the same, the payment world has evolved significantly. Payment processing refers to the automated processing of electronic payment transactions between merchants and consumers.

To survive and thrive business owners must continuously adapt, but the ever-evolving landscape of the payment industry can seem complex and confusing. *Payment Processing 101* provides you with a comprehensive overview of everything you need to know about payment processing.

This eBook guides you through the oft-complex terrain that is the payment industry, exploring the way the landscape is changing, the details that facilitate payment processing, and how payment processing can help grow your business.

01 The payments landscape

A.K.A HOW YOUR CUSTOMERS WANT TO PAY







CASH AND CHECKS ARE DECREASING

We live in the age of speed, convenience, and minimalism; increasingly fewer people are using cash and checks. A recent report found that only 11% of consumers used cash in a day, compared to 27% the previous year, and more than 29% hadn't used cash in a week or more. One major contributing factor leading to the decline of cash is the increase of online shopping; eMarketer projects that online payments as a percentage of overall global retail sales is expected to increase from 7.3% this year to 12.4% in 2019.

Checks are antiquated and outdated; the use of checks has dropped even more dramatically than cash. Not only are fewer consumers using checks, but fewer merchants are accepting them due to high operational costs, additional paperwork, and NSF (non-sufficient funds) checks. Checks were used in more than \$40 billion transactions in 2000 but fell to less than \$20 billion in 2012. A modest 3% of consumers surveyed said their preferred way to pay was via check, and the majority of those were older consumers. The annual rate of decline in check transactions from 2009-2012 was 9.2%, compared to an annual growth of credit card transactions at 7.6% in the same years.



CREDIT & DEBIT CARDS ARE INCREASING

Cash was once king; but in recent years, the traditional paper payment has taken a back seat. Consumer choice is leaning towards electronic over paper payments due to convenience and speed - a shift driven by the onslaught of mobile payments and increased popularity of online shopping. On average, the global preference for cards (credit, debit, and prepaid) is 54%, compared to 39% for cash. Nowadays, there are enticing incentives for a consumer to sign up for a credit card: travel points, rewards, cash back, exclusive offers, and the list goes on. Since credit cards are accepted at a majority of stores worldwide, consumer convenience is another reason for the increased popularity. At the end of 2013, there were over 8 billion credit, debit, and prepaid cards in circulation. Accepting credit cards is no longer a perk; it's a necessity.

MOBILE WALLETS ARE ON THE MOVE

Where mobile apps were once a novelty, now "there's an app for that". The proliferation of mobile apps in modern culture is almost excessive (each of the Kardashians has their own). Nevertheless, it adequately describes the shift that is occurring: mobile apps are everywhere we turn. Today's consumers are spending over 85% of their time on their smartphones using mobile apps. What that means for the payments industry is that mobile wallets are gaining, and will continue to gain in popularity.

In the minimalist mentality of less is more, mobile wallets have become increasingly prevalent. Smartphones and other devices act like a contactless wallet; users can add credit cards to mobile wallets such as Apple Pay, Samsung Pay, Android Pay, and Google Wallet to replace them with a virtual card and pay with a simple tap, via NFC (near-field communication) technology. Mobile wallets will only continue to grow in ubiquity with technology giant Apple joining the game. Of consumers who currently do not use mobile wallets, 62% expect to use the technology within the next year. The proliferation of NFC and the advancements of technology mean that any device can be turned into a secure form of payment: Apple Watch even lets you pay with a simple tap of your wrist.

"THIS MOBILE WALLET ENTHUSIASM WE'RE **EXPERIENCING** HAS LED ANALYSTS TO PREDICT THAT BY 2019, MOBILE PAYMENT TRANSACTIONS WILL EXCEED \$800 BILLION."

Business Insider The Mobile Payments Report 2015

BENEFITS OF ACCEPTING CREDIT CARDS

IMPROVED CASH FLOW

With credit card payments, you don't waste time waiting for paperbased invoices, tracking down NSF checks, and waiting for checks to clear the banks (which can take up to 90 days). When you accept credit cards, funds are generally deposited within 48 hours.

REDUCED COSTS



Billing and labour overhead, such as paper, printer, and postage use, is reduced when you abolish hard copy invoices. On average, to process a check requires a high operational cost of <u>\$7.36</u>. A <u>Visa</u> <u>report</u> revealed that for each \$1000 transaction, the cost of dealing with NSF checks is \$20 for small businesses and \$24 for medium/ large businesses.

IMPROVED PRODUCTIVITY

Processing cash and checks not only requires more money but also takes more time. Time wasted with trips to the bank, managing accounts receivables, and chasing checks. When you accept credit cards, the process is automated.

INCREASED SALES OPPORTUNITIES

Credit cards offer the freedom to move businesses anywhere the customer goes. Owners are no longer confined to store hours or a brick-and-mortar location. You can accept payments anywhere, anytime with a mobile card reader and/or online store.

| INCREASED REVENUE | Customers are more inclined to spend <u>larger amounts</u> and buy more impulsively with credit cards. Not only is it faster, but the psychological pain of paying is lessened because swiping a credit card is more abstract than handing over cash. Industry research indicates that credit cards increase revenue by at least <u>30%</u> . |
|---------------------------|---|
| | Accepting credit cards is more secure than cash because sensitive data is safely encrypted and transmitted. |
| INCREASED AUTHENTICITY | When you display the credit cards you accept, your brand is associated with those recognizable and reputable banks in the minds of your customers. |
| BIGGER CUSTOMER BASE | By accepting credit cards, you can embrace eCommerce and sell your goods and services online; the world is your market. |
| LEVELED PLAYING FIELD | If your business is accepting credit cards, customers have no reason to go to your competitors for a more efficient shopping experience. Moreover, you can take business away from the competition still dealing in a cash and check only world. |

02 PAYMENT PROCESSING BREAKDOWN



The payment processing world is a plethora of moving parts. To understand what role each organization has and the intricacies of how they interact, you need to understand the basics first.

THE PLAYERS

Let's take a look at the players in the payment processing game.



Name - Acquirer (alias: Acquiring Bank or Merchant Bank)

Job - An acquirer takes on the risk of credit card processing. The acquirer solicits, underwrites, and maintains the merchant account. They may provide the technology, and hardware which enables the merchant to process the transaction.

Examples - Chase, First Data.



Name - Aggregator

Job - Aggregators allow merchants to process payments without setting up a merchant account. They bundle several merchants together and allow them to process payments using a joint merchant account. The set-up is simple and straightforward.

Examples - Square, PayPal.



Name - Cardholders

Job - Cardholders are consumers with credit cards used to purchase goods and services. They are approved by the issuing bank based on credit worthiness.

Examples - Beyonce, John Smith.



Name - Issuing Bank (alias: Issuer)

Job - The issuing bank issues credit cards on behalf of payment brands. They provide consumers with credit cards, send credit card statements, and offer consumers credit. The issuer is also responsible for card security and compensates customers for losses due to fraud.

Examples - Royal Bank, Bank of America.



Name - Merchants

Job - Merchants are business owners accepting payments in exchange for goods or services.

Examples - Best Buy, Bob's Cafe.



Name - Payment Brand Networks (alias: Credit Card Associations, Card Brand, or Payment Brand)

Job - Payment brand networks are colloquially known as credit card and debit card companies. Their job is to govern compliance policies pertaining to their payment cards, monitor processing activity, develop new products, and oversee the clearing and settlement of transactions.

Examples - Visa, MasterCard.



Name - Payment Processors (alias: ISO, Independent Service Organization, or Merchant Account Providers).

Job - Payment processors negotiate processing, setup, and equipment rates, as well as set up the merchant account. They act as a middleman between merchants and acquirers. They may also provide the technology and hardware which enables the merchant to process the transaction.

Examples - Payfirma, Moneris, Elavon.

THE PATH OF A TRANSACTION



THE PATH OF A TRANSACTION

AUTHORIZATION

Authorization is the process of approving or declining a transaction before a purchase can be completed. When consumers purchase something, the card is swiped, inserted, or entered (in the case of eCommerce), and the transaction is either approved or declined immediately. But on the back end, it is far more complex.

Authorization Process

- 1. The cardholder gives the merchant their credit card for payment. The merchant terminal reads the card information encoded on the magnetic strip or chip.
- 2. The merchant terminal then passes the information and transaction amount to the payment processor.
- 3. The payment processor encrypts the information into an authorization request and sends it to the payment brand.
- 4. The payment brand then routes the authorization request to the issuing bank for review.
- 5. The issuing bank will approve or decline the transaction by verifying whether the card is legitimate, is reported lost or stolen, and has enough funds available in the account. The issuing bank then creates an authorization message and sends the information back to the payment brand.
- 6. The payment brand, in turn, sends the authorization response back to the processor.
- 7. The processor transmits the information to the merchant terminal.
- 8. The merchant concludes the sale with the customer.

And it all happens within seconds.

For eCommerce, once the consumer enters their card information for payment, the processor passes the information onto the payment brand through a secure gateway.

CLEARING

Clearing is the process where the transaction data is sent to the acquirer. There are two types of clearing. The first is dual-message which usually requires a cardholder signature authentication. Each authorization creates a record called electronic draft capture (EDC) and is lumped into batches to be processed and submitted for settlement.

The second type of clearing, single-message, requires a PIN authentication. Single-message clearing occurs simultaneously with the authorization process; the information needed to post the transaction to the cardholder's account is sent at the time the transaction takes place. It happens immediately rather than later, as is the case with dual-message clearing.

SETTLEMENT

Settlement is an exchange of funds between a card issuer and an acquiring bank to complete a cleared transaction. It is essentially when merchants are funded and when cardholders are charged. All debits (purchases for consumers and chargebacks/refunds for merchants) and credits (refunds for consumers and sales for consumers) are calculated and then the net charge appears on the cardholder's statement or in the case of merchants, net funds are deposited.

Clearing and settlement process

- 1. Transaction data is sent to the acquirer.
- 2. The acquirer credits the merchant's account and submits the transaction to the credit card brand for settlement.
- 3. The card brand facilitates settlement by paying the acquirer and debits the issuer.
- 4. The issuer then posts the transaction to the cardholder account, which will show up in the cardholder's monthly statement.
- 5. The cardholder receives the statement and pays the bill.

TYPES OF TRANSACTIONS

All credit card transactions can be bucketed under two types:

Card present: occurs when the card is physically present at the time of purchase, such as in-store purchases where the chip and pin, magnetic stripe, or the tap/NFC feature of the payment card is being used.

Card not present: occurs when a card is not present during purchase and manually entered instead, such as phone-in orders or eCommerce transactions.



CHARGEBACKS

Chargebacks are transaction disputes and occur when a customer is unsatisfied with a service or product or feels the transaction is fraudulent, and goes directly to the credit card company to request a refund. Chargebacks protect consumers in the event of fraud, customer disputes, or technical errors (e.g. double charge). However, CBS reports that 86% of chargebacks are fraudulent. For example, a customer falsely reporting that a package was never received is considered a fraudulent chargeback.

Merchants can dispute unjust chargebacks with the aid of their processor, but that requires time and money. Chargebacks are detrimental to your business because the product or service is lost, the transaction fee is often not refunded, and there is the possibility that you may be fined a larger fee. Chargebacks can lead to unnecessary churn (cancellations) and can be reduced if you follow these five tips.

5 TIPS TO HELP YOU REDUCE CHARGEBACKS

| 1 | Be explicit | Chargebacks can be prevented if the customer knows exactly what they are paying for, especially in the case of recurring billing (automatic payments). Be as clear as possible in the RTA (recurring transaction agreement), so the customer understands every aspect of their contract. |
|---|--|---|
| 2 | Publish clear refund & cancellation policies | Your cancellation policy should be easy to understand. If a customer decides to cancel their contract, strive to end the relationship on a good note. You want the customer to refer you, not write scathing reviews. |
| 3 | Be accessible & prompt | Ensuring that customers are able to contact you quickly reduces the possibility that they contact the bank for a chargeback. Responding to customers swiftly provides the opportunity of retaining unsatisfied customers. Efficiency and promptness are equally as important when replying to inquiries, resolving issues, and granting requests. |
| 4 | Provide transparent communication | Transparency from a company can go a long way. Inform customers of changes to plans or pricing, such as trial or promotional periods ending; upcoming payments, especially if the last payment was not recent; contract renewals, even if the renewal is automatic; and promotions they are eligible for. Having consistent and open communication provides the opportunity for you to nurture your relationship with existing customers and create loyalty. |
| 5 | Ensure that your business name is recognizable on the statement | Sometimes something other than your business name appears on consumer's credit card statement. If you process with an aggregator, their name may appear on the statement as well which can not only lead to chargebacks but doesn't serve your brand well. In this situation, make sure your customers know what will appear on their statement so they expect the charge. |

03 SHOWDOWN: MERCHANT ACCOUNT PROVIDERS VS. AGGREGATORS



You have two choices when it comes to payment processing partners: merchant account providers or aggregators. Both allow you to process payments but do so in different ways.



AGGREGATORS

In one corner, we have aggregators, who allow merchants to accept payments without applying for a merchant account. Aggregators group several merchants together in an aggregation (hence the name) and allow them to process payments using one joint merchant account. Well-known aggregators are Square, Stripe, and PayPal.

MERCHANT ACCOUNT PROVIDERS

In the other corner, we have merchant account providers. They provide you with your own merchant account, help ensure that you are PCI-compliant, and may provide the hardware to accept payments. Well-known merchant account providers are Payfirma, Global Payments, and First Data.



Increased likelihood of account holds

By removing entry barriers and allowing instant credit card processing, aggregators take on more risk. Aggregators assume the risk for fraud of all the merchants under their umbrella. So to offset the risk, they exercise extreme caution when the slightest "irregular" activity is suspected - which is fairly common. This means that they won't be shy about freezing accounts without notice. Since aggregators removed the lengthy application process, they are not aware of unique business information like your typical processing amounts, so they will put your account and funding on hold to do their due diligence when something seems out of the norm. Sometimes the holds are only minor inconveniences (24-48 hours); but in other cases, they can be 30 days long; and in extreme cases, the account can be shut down.

Higher fees

By allowing a large number of merchants to process instantly and easily, aggregators increase their own risk. Fraudulent activity is higher in aggregators than true merchant accounts. The higher risk correlates with higher fees. Aggregator fees are almost always fixed - no matter how much you process. This means the more you process, the more fees you incur.

Lower limits

Aggregators have their own fees; they are charged based on gross processing volume, which means that your processing limits are lower than they would be with a merchant account. In addition, if you exceed the limit, you may be subject to holds and higher processing fees on subsequent transactions.

Branding

With aggregators such as PayPal and Square, their company name may appear with your business name on credit card statements, which creates inconsistent branding.

PCI Compliance

Technically, aggregators are not banks so they are not necessarily required to follow strict banking regulations or be PCI-compliant.



MERCHANT ACCOUNT PROVIDERS CONS

Longer application and approval process

While the approval process with aggregators is instant, the process to sign up for a merchant account is lengthier because to mitigate risk, acquiring banks require a comprehensive understanding of your business to determine your eligibility for a merchant account. Because acquirers have the potential to lose money every time they process a credit card transaction on behalf of your business, they don't hand out accounts to just anyone. Approval is dependent on factors like the risk associated with your business according to industry standards.

A Plethora of fees

Where aggregators often have simple, fixed fees, merchant account providers have a variety of pricing structures which can seem confusing if not communicated clearly. (See Chapter 04)

More expensive... up to a point

There can be monthly fees and contracts with merchant account providers. For smaller businesses, those additional fees may not make sense if the business isn't processing much in the way of credit card payments. However, once you start processing more than \$40,000, you hit a ceiling where processing with your own merchant account will actually save you money because fees are tailored to your unique business and more competitive. With tailored fees, pricing is optimized based on your individual business (such as high and low average transaction sizes).

AGGREGATORS ARE REACTIVE

Aggregators take on the risk of all their merchants so they're extra vigilant about potentially fraudulent activity. Aggregators are reactive because they don't obtain your processing information beforehand; they respond accordingly to your processing activity as it happens. They can freeze your account and hold your funds if there is suspicious activity to assess the situation.



MERCHANT ACCOUNTS ARE PREVENTIVE

Merchant account providers are preventive because they gather information about your processing amounts and frequencies during the application process. This means that you have little to no processing disruptions because your payment processor knows what is considered regular activity and what irregular activity to look out for.

AND THE WINNER IS...

It depends. Think of it this way: merchant accounts are preventive and aggregators are reactive. Both options have benefits and drawbacks, so it becomes a matter of deciding what works best for your individual business.

Most merchants switch to their own merchant account once their processing volumes exceed \$40,000 because they have an opportunity to significantly reduce fees at that point.



MERCHANT ACCOUNT CHECKLIST

Although the process for securing a merchant account requires more time, a reliable payment processor will guide you through the process step by step. Once submitted, approval typically takes 3-5 business days. Below is the information you will need to have on hand when applying for an account:

| Company Information | Ownership Information |
|--------------------------------|--|
| Legal name of business | Full name |
| DBA (doing business as) name | Home address |
| Address | Home phone or mobile number |
| Phone number | Date of birth |
| Business start date | SIN or SSN number |
| Number of employees | Driver's license number |
| Primary contact | |
| Email | Processing Information |
| Website | Anticipated monthly credit card sales volume |
| Scanned copy or clear photo of | Most common transaction size |
| business void check | Largest transaction size |
| | Smallest transaction size |

04 PRICING DEMYSTIFIED





Pricing is the first thing everyone wants to explore but is the most complicated part of the equation. Each company's pricing structure will differ but here are the basics.

FEES

Fees are calculated per transaction, and are aregenerally between 1% and 4%. There is also often a fixed dollar amount per transaction that ranges between \$0.10 and \$0.30. Below is an exhaustive list of the common fees that are charged, but keep in mind that not all payment processors will charge every fee.

| NON-NEGOTIABLE FEES | DESCRIPTION |
|---|--|
| Interchange Fee | The interchange fee is what the acquiring bank pays to the issuing bank and is commonly referred to as "cost". This fee is set by the card brands and is non-negotiable. The interchange fee is higher for non-qualified cards than it is for qualified (basic) cards, and varies for the different card levels. |
| Card Brand Cost/Fee (AKA Card Assessment Fee) | This is a small fee that is non-negotiable and is paid to Visa, MasterCard, etc., for each transaction. It does not matter whether the card is premium or basic, present or not-present. It's a flat fee per transaction. Payment processors can choose to mark this up or not. |
| International Fee | This fee is applied when an international card is used for a transaction and is a non-negotiable fee. Payment processors can choose to mark this up or not. |
| Chargeback Fee | A chargeback fee is a set fee for handling disputed transactions either due to fraud or faulty goods/services. Different processors/acquirers will price chargebacks differently. There is no set industry fee associated with chargebacks. |

Transaction rates/fees are the common rates you will hear when setting up the terms associated with your merchant account. They can vary based on a number of criteria including business type, processing volume, etc.

| TRANSACTION RATES | DESCRIPTION |
|---|--|
| Discount Rate (AKA Qualified Rate or Merchant Discount Rate) | The discount rate is a percentage that a merchant must pay to process a transaction where a qualified (basic) card is used. It is mostly made up of the non-negotiable interchange fee which is set by the card brands, plus a small mark-up amount which is set by the payment processor. A qualified card is the most basic credit card that has no perks, no benefits, and no points. And to qualify for the Discount Rate, the qualified card must be present during the purchase. The discount rate is calculated on a per transaction basis and is a percentage of the total transaction size. This is a negotiable rate. |
| Non-Qualified Rate | A non-qualified fee is added on top of the discount rate. It is a bundled fee associated with non-standard consumer cards (ie. Rewards cards, business cards, corporate cards, etc.) as well as cards that are not present for the transaction. This is a negotiable rate. |
| Interchange Differential Fee | The interchange differential fee is the difference between the base interchange rate of a card brand (standard credit card with no rewards, perks or benefits) and the actual interchange rate of the card. This is a separate fee that is added on top of the interchange fee. |
| Transaction Fee | A set network (ie. Interac, Visa, MasterCard, Amex, Discover) fee added to each transaction. |

| TRANSACTION RATES | DESCRIPTION |
|----------------------|--|
| PCI Compliance | A fee associated with being PCI-compliant. Payment processors incur costs associated with being PCI-compliant and will often transfer those costs on to merchants in the form of monthly, quarterly, or annual fees. |
| Statement Fees | A fee associated with preparing statements. Some processors will charge for this service. |
| Monthly Minimum Fees | This varies by processor but is charged to ensure the minimum fees associated with the required processing volume are met. For example, if your minimum fees are \$20/month, and your actual processing volume only amounted to fees of \$11, you will be charged the difference of \$9. |
| Annual Fees | Some processors will charge annual fees. These are often fees associated with PCI compliance. |
| Set-Up Fees | Some processors will charge a set-up or "application" fee. These fees will vary by processor and are negotiable. |
| Cancellation Fees | It varies by processor, but is a fee charged when some services are discontinued prior to contract end. This is negotiable. |

PRICING MODELS

Interchange Differential

With this pricing model, you pay the qualified rate, the non-qualified fee, if it's anything other than a basic card, the card brand fee, and the interchange differential fee.

Tiered

In this pricing model, you pay based on which tiers the transaction falls into. There are three tiers:

- Qualified (swiped transactions),
- Mid-qualified (keyed-in transactions),
- Non-qualified (online transactions). With tiered pricing, fees are bundled within the tiers, and the true cost of each fee of a transaction is not disclosed.

Billback / ERR (Enhanced Recover Reduced)

This pricing model consists of a flat rate and a second charge for all non-qualified cards. Essentially, a merchant pays the qualified rate on the first statement then is billed back for nonqualified cards; the second charge always shows up in the next statement. Since this pricing structure is a lump sum, it is hard to break down the cost of a transaction.



Interchange Plus / Cost Plus

For the interchange plus pricing model, you pay the interchange rate of the card plus a fixed percentage, which can be a mixture of additional fees. This is known to be the most transparent pricing structure.

Flat

Pricing models can be difficult to grasp, which is why some providers, such as aggregators like Square, offer a flat rate pricing model. No matter the type of card and transaction, you will always pay a fixed percentage. The downside of this pricing structure is the cost; when you process larger amounts, you end up paying a substantial amount in fees.

05 SECURITY & FRAUD



Payment Processing 101

Fraud occurs when the customer does not initiate or has no knowledge of a transaction. This can happen when a consumer's physical credit card is stolen or if their credit card information falls into the wrong hands. Fraudsters obtain sensitive card information by card phishing (scammers posing as a legitimate organization to obtain sensitive customer information) or card skimming (employees with access to customer data who copy sensitive information). Fraud is devastating for both customers and businesses. For the latter, it results in chargeback fees, lost revenue, and a poor company image.

EMV

Credit cards are evolving; the magnetic strip of a credit card is being replaced by the more secure EMV (commonly known as Chip and PIN), making card present transactions more secure. EMV is named after its developers: Europay, MasterCard, and Visa. It is a global standard for credit and debit cards that relies on chip card technology. EMV is more secure because it allows a PIN to verify the cardholder's identity, reducing the possibility of merchants accepting lost or stolen cards, and the chip makes it impossible for thieves to duplicate. EMV also encompasses Chip & Signature (where a signature is required instead of the PIN) and NFC (tap and pay) transactions. EMV reduces the potential of in-store fraud.

ONLINE FRAUD

Online sales in the U.S are expected to increase to \$392.5 billion by 2016 and \$491.5 billion by 2018. The eCommerce market continues to grow rapidly as web payments become increasingly convenient. Fraud chases the money, and the money is going online.

Over the last four years in North America, approximately 0.9% of all online revenue has been fraudulent. That percentage might seem small, but in 2014, card fraud worldwide exceeded \$16 billion.

HOW TO DETECT AND PREVENT ONLINE FRAUD

The good news is anti-fraud technology is constantly evolving and adapting, but the bad news is so are fraudsters. Fraud happens; it's inevitable, but there are precautions that you can take to ensure your business is less vulnerable.

PRECAUTIONS AGAINST FRAUD

IMPLEMENT FRAUD PREVENTION TOOLS

Anti-fraud tools will provide structural protection against scammers.

- Display anti-fraud notices and seals; these will deter the less ambitious scammers.
- Layer your security. The more layers you have, the harder to penetrate.
 Layering involves installing a basic foundation of protection like a firewall and then adding additional authentication on top, including social logins or 3D secure programs.
- Use solid SSL authentication to encrypt and transmit customer data so fraudsters can't access sensitive information.
- Use Address Verification Service (AVS) to automatically check the customer's billing address against the one on file with the issuing bank.

MONITOR ORDER ACTIVITY

While not all suspicious activity will be fraudulent, there's no harm in paying attention to:

- International address or corporation; fraud is more prevalent overseas.
- Orders with the same name, address, or IP address but different credit cards.
- Emails that don't link back to a real domain.
- Urgent orders; there is a short window between when a card is stolen to when it is reported.
- IP addresses that don't correspond with the country of the billing address on file.
- Larger than normal orders, in both quantity and cost.
- Phone numbers with area codes that do not match the address.

IMPLEMENT SECURE POLICIES

- Additional measures that you can integrate into your business policies for a secure checkout.
- Require strong passwords; the more complex the password, the harder it is for scammers to hack.
- Require that customers provide both the credit card security code and expiry date at checkout.
- Ship packages with tracking numbers and ask for a signature confirmation upon delivery to ensure shipments are received.
- Ensure PCI compliance in accordance with <u>existing</u> <u>restrictions</u> set forth by the Payment Card Industry
- Use payment processors that will help ensure your practices are PCI-compliant.

PCI COMPLIANCE

Along with payment card industry growth comes a surge in technology crimes, which leads to stricter, more complex standards. PCI DSS (Payment Card Industry Data Security Standard) was put into place by the Security Standards Council, comprised of the five major credit card companies: Visa, MasterCard, Amex, Discover, and JCB. PCI Compliance is a set of 12 requirements that ensure a safe environment to process credit card payments:



- 1. Install and maintain a firewall configuration to protect cardholder data.
- 2. Do not use vendor-supplied defaults for system passwords and other security parameters.
- 3. Protect stored cardholder data.
- 4. Encrypt transmission of cardholder data across open, public networks.
- 5. Protect all systems against malware and regularly update anti-virus software or programs.
- 6. Develop and maintain secure systems and applications.
- 7. Restrict access to cardholder data by business need to know.
- 8. Identify and authenticate access to system components.
- 9. Restrict physical access to cardholder data.
- 10. Track and monitor all access to network resources and cardholder data.
- 11. Regularly test security systems and processes.
- 12. Maintain a policy that addresses information security for all personnel.

Compliance is enforced by the card brands. All merchants must comply or else face fees, penalties, or account termination. Constant security checks are required to ensure that risks are identified and fixed.

06 Omni-channel magic



Omni-channel refers to providing a holistic experience for the many ways consumers interact with you (online, in-store, mobile, social media, and more). Adopting an omni-channel payment ecosystem provides your customers with multiple ways to buy from you and sets your business up for growth. Omni-channel payment systems, like Payfirma, enable you to offer multiple payment methods with a single account and see your transaction data collected in one convenient place.

Countless companies have successfully implemented multiple payment methods. Apple executes omni-channel flawlessly; not only do they have a plethora of physical locations worldwide and an interactive online store, but they also equip each of their salespeople with a mobile device to accept payments anywhere in the stores. In doing so, they turned each salesperson into a mobile POS.

McDonald's is another company that is recognizing the value of omni-channel. McDonald's leveraged society's obsession with mobile technology to their benefit; "At McDonald's, we are always striving to have relevant experiences for our customers, and mobile payments is one more way to provide greater ease and convenience", says Anja Carroll, U.S Vice President of Media and Consumer Connection. They readily implemented mobile payments in their restaurants because they "prefer to allow [their] customers to choose how they prefer to pay". In efforts to remove further friction in the paying process, select McDonald's restaurants in San Francisco are participating in an early prototype of Google's Hands Free, which allows Android phone users to pay in stores simply with spoken commands. Offering customers the option to pay however they want is the heart of omni-channel retailing.

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THE DIFFERENT PAYMENT CHANNELS

Modern consumers research and purchase across multiple channels. Below is an in-depth look into each channel: its best uses and benefits.



WEB TERMINALS

Web terminals (also known as virtual terminals) are POS (point of sale) systems accessible on any web browser, and turn any device into a terminal as long as there is internet access. You type in your sale details, and the payment is securely processed in seconds.

Best used for card not present transactions, like those taken over the phone or via mail order.

RECURRING BILLING

Recurring billing (or subscription billing) is an automated payment that occurs on a scheduled basis. Many companies like Barkbox are using recurring billing as a core payment method. This billing structure is also becoming popular with churches like Parkside Church so that they can implement recurring donations. Just store your customer's card information and subscribe them to a payment plan.

Best used for memberships, subscriptions, donations, and B2B services.

Benefits:

- Speed up B2B payments and simplify wholesale transactions.
- Avoid purchasing expensive POS equipment.
- Safely record customer info and track customers purchasing habits in one place.
- Store credit cards for each customer.

Benefits:

- Billing errors and credit card declines are reduced, if not eliminated.
- Credit card details only need to be entered once.
- Future revenue can be better predicted.
- Cash flow is improved because payments are automatic.
- Reduction in administrative time.

MOBILE PAYMENTS



Mobile payments are a blanket term that includes any payment involving a mobile device, among which include proprietary apps (Starbucks), mobile wallets (Apple Pay), payments within apps or mobile websites, and card readers. They can be facilitated by SMS, QR Code, or NFC. Mobile payments make purchasing more convenient for consumers. We're going to explore two of the more common mobile payment categories: payments made by a mobile device by consumers, and payments taken on a mobile device by merchants.

A. PAYMENTS MADE BY A MOBILE DEVICE _____

The first type of mobile payment refers to making a purchase with a mobile phone. This is facilitated by NFC, which allows two devices to transfer data through radio signals by tapping the devices together or bringing them near one another (up to a distance of 10 cm). Consumers store credit card information in mobile wallets creating a virtual credit card and then pay with a tap on the terminal.

Millennials (Generation Y), in particular, are strong advocates for mobile payments. This is largely attributed to the fact that they grew up in a digital world, with technology touching every aspect of their lives. Millennials are more likely to embrace the technological shift in payments than other generations and have already started to do so. 44% of millennials would prefer to use mobile phones to pay rather than cash, particularly for smaller purchases.

Benefits:

- Customer ease. In our fast-paced culture, consumers want it easy, and they want it fast. The more streamlined you can make the experience for customers, the more likely you are to gain loyalty.
- Keep up with the times. Technology is
 ever-evolving: increasingly more mobile
 devices are incorporating NFC technology
 and more merchants are accepting
 mobile payments. You can't afford to miss
 a sale; your business needs to adapt by
 letting your customers pay the way they
 want.

Best used for in-store payments and mobile loyalty programs.

B. PAYMENTS TAKEN ON A MOBILE DEVICE



The second type of mobile payments are payments taken on your mobile device. Insert the card reader (also referred to as a swiper or dongle) into the audio jack of your mobile device, and you're set to take payments anywhere.

Best used for payments taken in the field, selling on the go at trade shows; and instore mobility, expediting the checkout process.

Benefits:

- Expedite checkout. By transforming
 mobile devices into POS systems, the
 traditional concept of a cash register
 becomes obsolete. When customers see
 a long line at the till, their desire to avoid
 waiting in line outweighs the need to
 purchase the product; 86% of consumers
 will avoid a store if the wait time is too
 long. You hold in your hands the ability to
 abolish long lines and recover those sales
 (line busting).
- Get paid faster. With mobile payments, your business can go mobile which means you can take payments instantly when you make house calls, special deliveries, or provide onsite services.
- Obtain reporting. With a payment processor that utilizes cloud technology, your mobile payments transaction history (by time and place) is automatically aggregated into one secure, convenient place. This provides valuable sales analytics which help you to understand the opportunities in your business.
- Email receipts. Mobile payments create a perfect opportunity for you to email receipts. By doing so, you reduce paper cost, create opportunities to upsell (with related product recommendations), and increase engagement (with social share buttons).

ECOMMERCE



eCommerce is the selling of goods and services online by connecting your website to a secure online payment gateway.

Best used for any goods or services sold online.

Benefits

- An eCommerce store is open 24/7.
- Consumers can access a global range of products and services.
- Merchants expand their customer base to a worldwide audience.
- Consumers can shop from the comfort of their homes.

TRADITIONAL TERMINALS

Traditional terminals are the most standard payment channel. A traditional terminal is hardware that allows a merchant to swipe or insert the credit card to process a credit card transaction.

Benefit:

Most universally accepted way to pay.

Best used for in-store purchases.





TABLET POS

Tablet POS turns any tablet into a full POS system to process cash, check, and credit cards anywhere in your store, or at the counter with a cash drawer and receipt printer.

Best used for in-store checkout, sales staff can ring up customers on an iPad from anywhere in your store, or at the counter, for an efficient, space-saving process.

Benefits

- Removes the need for a bulky, traditional register and saves counter space.
- Keeps an organized product inventory of photos, SKUs, and prices.
- Provides the ability to email receipts.



CASE STUDY

505**-JUNK**

A waste management and junk removal service company, 505-Junk, adopted omni-channel methods and reaped the rewards. The nature of their business is weighing and removing junk out in the field. Their previous payment process consisted of contacting the customer for payment after the service or obtaining the payment information on-site, but waiting to process once they were back at the office.

Needless to say, cash flow was almost stagnant, and they wasted a lot of administrative time chasing payments. Since partnering with Payfirma, they use the Web Terminal so they can process payments at the office, and use our mobile solutions in the field to take payments immediately when the job is done. By taking payments and authorizing payments on the spot, they gained efficiencies and improved cash flow because payment was immediate and guaranteed.

Click here to read the full story

07 HOW TO FIND YOUR PAYMENT PROCESSING SOUL MATE



Payment companies are a dime a dozen. Here are some things to consider as you navigate the payments terrain and find the processor that's right for you.

RELIABLE CUSTOMER SERVICE



When you're faced with technical difficulties and impatient customers, it can be frustrating when you can't get a hold of your payment processor for assistance. Many payment processors offer 24/7 customer service and strive to resolve issues and answer questions efficiently and delightfully.



TRANSACTION FEES



Transaction fees differ, whether from aggregator and merchant account provider or from company to company. As covered in Chapter 03, aggregator fees are higher and frequently fixed, and merchant account provider fees are tailored to your unique business.



A reliable payment processor needs to ensure that merchants are PCI-compliant. A payment processor should enable merchants to effectively manage risk and to detect, prevent, and reduce fraud.

TRANSPARENCY

Transparency is a big factor. Surprises, like finding twenty dollars you did not know you had in your pocket, are nice but not typically a trait you look for in a payment processor. Some companies will advertise low fees based on the qualified rate (card present transactions with non-reward credit cards) to draw customers in, and won't disclose that most of your transactions will likely have higher rates. Look for a payment processor that is upfront and clear about fees.

REPORTING



Your payment processor should provide you with robust reporting. Reporting and analytics are the headlights of your car; they shine a light on the road ahead and let you see where you need to go. When you accept credit cards and other forms of payment, you get aggregated payment data which gives you a wealth of <u>information</u> <u>and insight</u>. They provide the opportunity for you to learn about your customers (their behavior, habits, and preferences), as well as real-time data on when, where, and how your transactions are occurring - all of which help you make better business decisions.

SCALABILITY

 A payment processor should help you grow. Aggregators are better suited for smaller businesses or ones just getting started. But when your business expands and grows, a merchant account provider can provide you with better rates and tools to operate more efficiently. In addition, the ability to implement recurring billing, set up an eCommerce shop, and take mobile payments are <u>all possible</u> complete with the security and safety that a merchant account provides. Payfirma

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PAYMENT PROCESSING SOUL MATES

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Let's get hitched

08 The future of payments

The path of payments has come a long way and continues to evolve. What started out as mere barter of resources, services, and livestock, evolved into grain and shells, metal coins, leather, and eventually paper money. From there, checks and gold came onto the scene, followed by credit cards and online payments. Today mobile payments are taking the stage, with cryptocurrency looming on the horizon.

CRYPTOCURRENCY

Cryptocurrency is the next generation in payments: an entirely digital currency. Payment is based on complex algorithms. Once the algorithm has been resolved, cryptocoins are unlocked and provided to the person whose computer calculated the math. This process is referred to as "mining" and is driven by a community that agrees on the value and opportunity the currency presents. Many view cryptocurrency as revolutionary because it operates independent of a central bank. In that respect, it can be considered the currency of the people because it shifts the monopoly of power and flow of currency into the hands of consumers. While cryptocurrency has more autonomy than any previous payment method, the value can fluctuate based on demand for that currency.

BITCOIN

Bitcoin is the first and most popular form of cryptocurrency, stored electronically in bitcoin wallets that allow you to buy and use them securely. Rather than the main networks that credit cards use, bitcoin has a decentralized community of servers that are managed by individuals and businesses that carry out transaction matching and data transfer. This means there is no need for a middle-man, like a bank or credit agency. The mathematical formula is free, software is open source, and transactions are all publically recorded in a master list called the blockchain. Despite the open nature of bitcoin, it is private and secure for users because no personal information is linked to accounts or transactions. Bitcoin is slowly but surely being accepted by merchants around the world; major online retailers like Overstock, TigerDirect, and Subway have already started accepting bitcoin payments.



CONCLUSION



Payment Processing 101

From currency's extended history, it's evident that the payment landscape is always adapting. Currently, we're living in an age of electronic payments. Modern society is a culture of convenience which ushered in the ubiquity of credit cards. In a culture where speed is paramount, this electronic payment has streamlined the purchasing experience for consumers. For merchants, the benefits of accepting credit cards are boundless, from improving office efficiencies to increasing sales. The proliferation of technology encouraged the parallel ascent of another electronic purchasing method: mobile payments. For a society that lives more and more of its life online, it only made sense that the next natural progression was cryptocurrency, an entirely digital form of payment.

The search for a payment processor for your unique business can be a challenge, but the right company can help you save time and money, ensure your business is PCI-compliant, and ultimately grow your business. Accepting credit cards and mobile payments, and in the future, cryptocurrency is at the heart of what Payfirma believes in: omni-channel payment processing because allowing your customers to pay any way they want creates customer loyalty and helps your business grow.

Payment processing can be complex. From how a transaction is processed, to the differences between an aggregator and a merchant account provider, to pricing structures, we hope this eBook serves as a guide to helping you understand the complicated domain that is the payments industry.



GLOSSARY

Acquirer: An acquirer solicits, underwrites, and maintains the merchant account. They may provide the technology that allows the merchants to process transactions, take on chargeback risk of a business, and deposit funds into a merchant's bank account.

Aggregator: A service provider through which merchants can process their payment transactions without a merchant account.

Annual Fee: This fee is often associated with PCI compliance.

Application Fee: This is another one-time fee charged for processing the application.

Authorization: The process by which a transaction is approved or declined by the issuer. Merchants use this to ensure a customer has sufficient funds available on their credit limit at the time the request is being made.

Billback Pricing Model: A pricing model where a merchant pays one set rate for qualified cards then is billed another rate for all non-qualified cards in the next statement.

Bitcoin: A popular form of cryptocurrency that is created and held digitally.

Cancellation Fee: This is a fee charged when some services are discontinued prior to contract end.

Card Brand Fee: This is a small fee that is paid to Visa and MasterCard each transaction

Card Not Present: Transactions where the credit card is not present at the time of purchase, such as online purchases. Credit card data is manually entered instead of swiped.

Card Present: Transactions where the credit card is present at the time of purchase, such as in-store purchases.

Cardholders: Consumers with credit cards that purchase goods.

Card Phishing: Scammers posing as a legitimate organization to obtain sensitive customer information.

Card Skimming: The theft of payment card information used in an otherwise legitimate transaction. The thief can procure card numbers using manual (photocopying receipts) or electronic (using a device to swipe and store numbers) methods.

Chargebacks: A return of funds to a consumer after they disputed a transaction, either due to fraud or faulty goods/services.

Chargeback Fee: A chargeback fee is a set fee for handling disputed transactions either due to fraud or faulty goods/services.

Check: An order for the transfer of money.

Churn: The rate that you are losing customers.

Clearing: Activity from the time a commitment is made for a transaction until it is settled. Clearing turns the promise of payment into an actual movement of money from one bank to another. Cost Plus Pricing Model: See Interchange Plus Pricing Model.

Credit Card: A plastic card with a credit limit used to purchase goods and services.

Credit Card Fraud: Theft and fraud committed using or involving a credit and debit card. It is either theft of the actual card or sensitive card information and then the use of either without the knowledge of the cardholder.

Cryptocurrency: A digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.

CVV: Card Verification Value is a unique 3 or 4 digit number found on the back of a credit or debit card. It provides an extra layer of security to minimize unauthorized transactions.

Debit Card: A plastic payment card that provides the cardholder electronic access to their bank account.

Discount Rate (or Merchant Discount Rate): The fee charged by your credit card processor and paid to a merchant bank in exchange for being able to accept credit cards. It is calculated on a per transaction basis and based upon the total amount of the transaction size.

eCommerce: Trading in products or services using computer networks, such as the Internet.

EMV (Europay, MasterCard, and Visa): Otherwise known as chip and pin. It is a global standard for credit and debit card payments based on chip card technology.

ERR: Stands for Enhanced Recover Reduced. See Billback Pricing Model.

Flat Fee: A pricing model that has a fixed fee regardless of card type, business type, and transaction type. This is the fee type for aggregators.

Fraud: When a customer does not initiate or has no knowledge of the transaction.

Interchange: Interchange is what the acquiring bank pays to the issuing bank. Each type of credit card has a different interchange rate set by the card brands.

Interchange Differential Pricing Model: With this pricing model, you pay the qualified rate, the non-qualified fee, if it's anything other than a basic card, the card brand fee, and the interchange differential fee.

Interchange Differential Fee: The interchange differential fee is the difference between the interchange rate of a premium or non-qualified card (i.e. cash back credit card) and the interchange rate of a qualified card.

Interchange Plus Pricing Model: A pricing model that consists of the interchange rate of the card plus a fixed percentage.

International Fee: This fee is applied when an international card is used for a transaction.

ISO (Independent Service Organization): Also known as payment processors. They solicit businesses for merchant services. They work with an Acquirer who facilitates the settlement of transactions into the merchant account. ISOs set up the merchant account and negotiate fees.

Issuing Bank (Issuer): A bank or financial institution that provides credit and a physical credit card to the customer. They are responsible for approving and declining transactions, billing, and collecting the owed funds from the customer.

Line Busting: Abolishing line-ups.

Merchant: A company accepting payment cards in exchange for goods or services.

Merchant Account: A type of bank account that allows businesses to accept payments by payment cards, typically debit or credit cards. It is established under an agreement between an acceptor and a merchant acquiring bank for the settlement of payment card transactions.

Mobile Payments: Payments accepted on a mobile device or a payment made on a mobile device.

Mobile Wallet: An electronic device that allows an individual to make electronic transactions.

Monthly Minimum Fee: A fee that is charged if a certain transaction total for the month or year is not reached.

Multichannel: Providing customers multiple payment channels to choose from.

NFC (Near Field Communication): The technology that allows the transfer of information when two enabled devices are in close proximity through radio waves.

Non-qualified: Any card that is not a standard no perks, no benefits card that is present when and where the transaction takes place.

Non-qualified Fee: This is a bundled fee associated with non-standard consumer cards and cards that are not present for the transaction.

Omni-channel: Omni-channel refers to providing a holistic experience for the many ways consumers interact with you. For payments, this means providing multiple integrated methods for your customers to pay.

Payment Brand Networks: Credit card and debit card companies. Their role is to govern compliance policies pertaining to the bank cards, monitor processing activity, develop new products, and oversee the clearing and settlement of transactions. Examples are Visa and MasterCard.

Payment Gateway: It facilitates the transfer of information between a payment portal (website, mobile phone) and the processor (Payfirma).

Payment Processor: Organizations that partner with an acquirer to open merchant accounts, handle support, manage payment processing, and build technology on behalf of acquirers.

PCI DSS (Payment Card Industry Data Security Standard) or PCI Compliance: A set of requirements that ensure all merchants that come into credit card information maintain a secure environment.

PCI (Payment Card Industry) Fee: The PCI fee is paid to the Payment Card Industry, either for non-compliance or compliance.

POS (Point of Sale): The location where payment is accepted. This is often referred to as checkout.

Qualified: A baseline credit card that is a standard, no perks, no benefits card that is present when and where the transaction takes place.

Recurring Billing (subscription billing): Automatic and periodic payment under a pre-authorized agreement for an ongoing product or service.

Refund: A credit issued by the merchant back to a customer when a customer returns a product.

Reporting: Analytics and statistics on your payment information.

Set-up Fee: This is a one-time fee charged for the set-up of a specific product or service like an eCommerce set-up fee.

Settlement: An exchange of funds between a card issuer and an acquiring bank to complete a cleared transaction

Statement: A fee associated with preparing statements.

Subscription Billing: see recurring billing.

Tablet POS: A completely functional POS system on a tablet.

Tiered: A pricing model in which the rates are structured in tiers. You pay different rates for different types of cards.

Traditional Terminal: A physical wired or wireless terminal that allows you to accept debit and credit card payments.

Transactions Fee: This fee is charged for every credit card transaction.

Virtual Terminal: A virtual terminal that acts like a POS system by allowing you to accept credit cards through your web browser.

Web Terminal: See Virtual Terminal.

Payfirma

Getting paid should be the least of your worries.

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