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WHAT YOU NEED TO KNOW
CARDS

Global Trends in the Payment Card Industry: Processors

Key trends faced by card processors and implications for the payment card industry

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Contents

1 Highlights

The payment card industry was relatively resilient to the global economic slowdown, with cards transaction volumes up by 8.4% in 2009. The growth was primarily driven by stronger growth in the developing markets of Asia and Latin America. Transaction volumes are expected to continue to grow in 2010 with developing countries such as China and Brazil as growth engines. The average global value of card purchases has been slowly declining as consumers in developed nations cut down on their big ticket purchases.

The key payment card industry stakeholders of card acquirers[1], card processors[2], and card issuers[3] are all witnessing shifting trends. This paper identifies the key emerging trends pertaining to the processing side of the payment card industry.

The commoditized nature of the cards processing business has led to a wave of consolidation in the processing industry, with many larger players aggressively looking out for inorganic growth in order to achieve scale. Large-scale M&A activity combined with increasing joint-venture alliances with banks has driven larger processors to consolidate their processing platforms and data processing centers.

While size has traditionally been one of the biggest differentiators for processors, these firms are now looking to provide various value-added services to their customers and end-users in order to stay competitive. These value-added services (such as fraud management and business intelligence) are not only expected to help various card industry stakeholders, but also help processors to maintain their profit margins as it generally increases customer loyalty. Additionally, such add-on services provide opportunities for processors to be value differentiators.

The amount of losses that merchants incur on account of card frauds is a pressing concern for the merchant community. For example, in 2010 alone US-based merchants are expected to have lost more than US$100 bn by way of card frauds. Processors can play an important role in reducing these fraud losses for merchants through increased investments in fraud detection/prevention technologies and keeping the merchants abreast about emerging fraud schemes and commonly used best practices to mitigate fraud risks.

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[1] Acquirer refers to merchant's bank

[2] Processor refers to a third party organization that aids in card authorization and settlement process (sometimes acquirers perform this task themselves)

[3] Issuer is the cardholder's bank which issues a credit/debit/prepaid card and maintains the customers' accounts

[4] LexisNexis True Cost of Fraud Study, 2011

2 Introduction

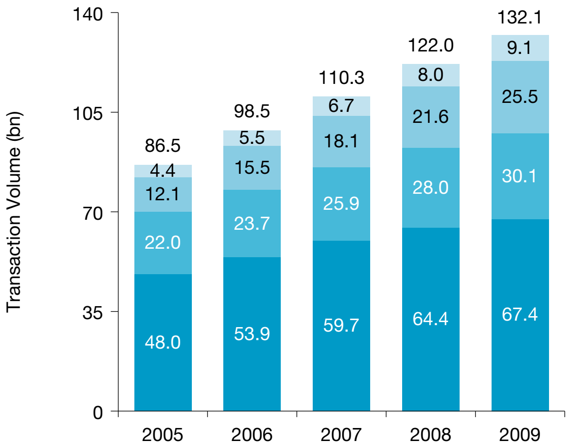
Developing nations in Asia-Pacific and Latin America are increasingly replacing their cash transactions with debit and credit cards, which is driving the card industry growth in the region.

2.1. Global Payment Card Industry Performance

The global payment card industry was relatively resilient to the financial crisis of 2008-09, as evidenced by the 8.4% growth in card transactions volume which increased to 132.1 billion transactions in 2009 (as compared to 122.0 billion transactions in 2008 as shown in the exhibit below). Cards represent one of the most preferred non-cash payment instruments, with an estimated 40% of the global non-cash payments being routed through cards[5].

Based on a regional comparison, Asia-Pacific has been one of the fastest growing regions in terms of card usage. Cards transaction volumes grew by 18.1% during 2008-09 within Asia-Pacific, compared to North America and Europe which grew 4.7% and 7.3% respectively for the same period.

Exhibit 1: Global Card Transactions by Volume (bn), 2005-2009



	CAGR 2005-'08	Growth 2008-'09
Total	**12.1%**	**8.4%**
Latin America	21.8%	14.1%
Asia Pacific	21.4%	18.1%
Europe	8.3%	7.5%
North America	10.1%	4.7%

Source: Capgemini Analysis, 2011; ECB; Red Book 2010; World Payments Report, Capgemini 2011

[5] World Payments Report, 2011 (Cards represent just debit and credit card transaction across the globe)

In 2008 and 2009, the payment card industry represented the two-speed nature of global economic growth, with developed nations slowing down and the developing nations growing strongly. For instance, the transaction volume growth in developed countries was modest, with the U.S. growing by 4.7% and the Eurozone growing by 6.8%. This was slower than their historic 2005-08 compound annual growth rates of 10.6% and 7.6% respectively. On the other hand, developing nations witnessed higher card usage, with China growing by 32%, Russia by 30.9%, and Brazil by 10.1% annually in 2009.

This two-speed growth is expected to continue in the near-future. The still-low absolute usage levels of cards as a payment channel in developing nations, coupled with the potential for faster economic growth, augurs well for the payment card industry in these regions. However, card industry growth measured by transaction value is expected to be subdued in the near future as weaker consumer confidence in most developed nations is likely to manifest itself through a lower amount of high value purchases as already witnessed in 2009 in the U.S. and peripheral Europe.

The slow growth in transaction values, increasing regulations designed to favor and protect card users (in terms of fees charged), and competition from other payment sources is expected to put pressure on margins for payment card industry participants. Various stakeholders therefore need to better utilize technology to deal with compliance issues, and stay ahead of the competition within the industry as well as external competition such as mobile payments.

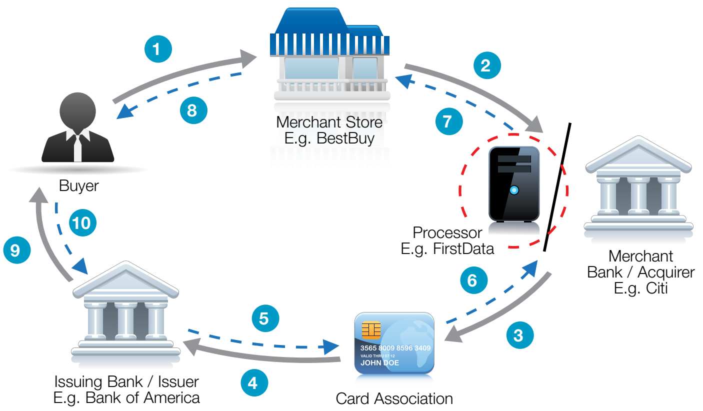
2.2. Key Payment Card Industry Participants

A simple card transaction between a cardholder and a merchant involves several players:

- **Card acquirers**: the merchant's bank.
- **Card processors**: third party organization that aids in card authorization and settlement process.
- **Card issuers**: the cardholder's bank who issues the card and maintains the customers' accounts.

Additionally, card association network providers (typically MasterCard® or Visa®) play an essential role in completing the card authorization and settlement cycle, as illustrated in the following exhibit.

Exhibit 2: Typical Card Transaction Flow Structure



1. Cardholder uses a credit card to pay for a purchase transaction
2. Merchant sends transaction information to the acquirer by swiping or manually feeding card information at the POS terminal
3. The acquirer or third-party processor on acquirer's behalf sends the transaction information to the card association
4. The card association sends the transaction information to the issuer for authorization
5. Issuing bank pays the card association network once it validates the transaction (after deducting their charge)
6. Card association pays the acquirer processors on acquirer's behalf (after deducting their charge)
7. Merchants account is credited for the transaction amount by the processor (after deducting their charge)
8. Purchase transaction is completed
9. Issuer bills the buyer for the transaction based on the billing cycle
10. Buyer settles the bill

Source: Capgemini Analysis, 2011, "Transaction Flow", Serve First Solutions, Inc., http://www.serve-first.com/resources/sfs-university/42-transaction-flow

This paper focuses on the key trends that the card processors have been experiencing and how the industry is responding.

3 Emerging Trends in the Payment Card Industry: Processors

Card processors are third-party non-banking firms who offer basic payment processing services although some large banks conduct payment processing services in-house. These processing firms play a vital role in a typical card payment transaction.

The emergence of third party processors (TPPs or processors) in the card payment ecosystem over the years can be linked to two technological developments which have made outsourcing these operations a viable and cost efficient option: Globalization of banks leading to evolving acquirer/issuer requirements, and changing merchant and customer expectations.

The primary activity of TPPs is payment processing, which involves a two-step process:

1. **Authorization –** Flow of customer information from the merchant to the issuer carried out to check the authenticity of the card presented. This process starts the moment the merchant swipes the customer's card at the point of sale terminal.
2. **Clearing & Settlement –** Flow of funds from the issuer to the merchant after each card industry stakeholder (issuer, acquirer, card network and processor) take their cut. This process starts the moment the issuer authorizes a card swipe transaction.

Apart from payment processing services, the TPPs play a crucial role in supporting the acquiring side of a card transaction with certain ancillary services. These ancillary services include acquiring new merchants, providing fraud protection services services, and providing training and other terminal operation support activities to the merchants. TPPs sometimes also have to bear certain portion of fraud liability of card transactions as a cover for the fraud protection services that they offer to the merchants. On the issuing side, TPPs offer a wide array of transaction processing services from application handling to arrear management.

The card processing industry has seen massive consolidation over the years driven by the commoditized nature of core payment processing and firms' drive to achieve economies of scale. The industry consolidation, coupled with need to differentiate by offering value added services including fraud protection, has led to three major trends for the card processors:

1. Increased focus on consolidation of processing platforms and processing infrastructure across geographies.
2. Increased focus on delivering value-added services to merchants and banks.
3. Increased focus on fraud detection and prevention to minimize merchant losses.

4 Trend 1: Increased Focus on Consolidation of Processing Platforms and Processing Infrastructure across Geographies

The Single Euro Payments Area (SEPA) in Europe is also triggering a wave of consolidation in the processing industry in the region.

4.1. Background and Key Drivers

The third-party card processing industry has seen massive consolidation over the past decade due to the commoditized nature of their core operation - card processing services. With little differentiation in the service offerings between any two different processors, they have primarily resorted to inorganic growth strategies to achieve economies of scale through higher transaction volumes and a reduced average fixed cost per transaction.

For most large processors, the wave of consolidation in the industry has necessitated the consolidation of various processing platforms and multiple data processing centers. The key drivers for the consolidation of processing platforms and data processing centers are:

- Large banks have either outsourced or disposed off their non-core acquiring businesses to card processors.
- The increased cost sensitivity of large issuers and acquirers has squeezed margins for card processors.
- Card processors are targeting improved profitability by building greater scale and decreasing the cost of operations.

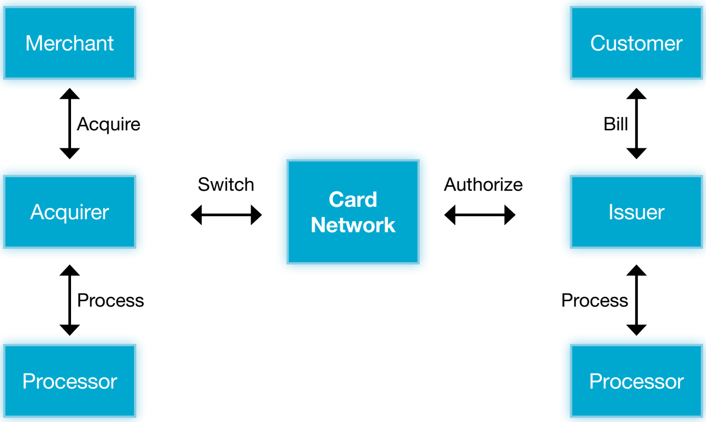
4.2. Analysis

The cards processing industry has witnessed aggressive inorganic growth by the industry leaders to increase their scale of operations and geographic reach. Some of the recent acquisitions by major players in the processing industry include FIS's acquisition of Metavante in 2009, and Global Payments acquisition of ZAO United Card Services to gain access to the Russian market. Additionally, there have been some notable joint ventures between processors and the acquirers such as First Data's alliance with Bank of America to provide payments solutions to its global customers and the alliance between Global Payments and HSBC to offer merchant processing services.

The Single Euro Payments Area (SEPA) is intended to create a common electronic payment system for the entire eurozone area. SEPA has also triggered a wave of consolidation in the processing industry in the region.

While the growing amount of consolidation in the industry is bringing scale benefits to the larger processors, smaller players lack the required scale and are facing operational challenges due to increased margin pressure and their inability to compete with the larger players on lower pricing. Even larger players who have been growing their business volumes through inorganic growth are yet to enjoy the full benefits of increased scale, since most of them still use non-integrated legacy platforms. In order to achieve the full benefits from past consolidation, processors need to find a way to integrate multiple platforms.

Exhibit 3: Card Authorization Cycle across Products



Source: Capgemini Analysis, 2011

Additionally, acquirers and issuers need payment systems which can perform the four basic functions of a card processing cycle: Acquiring, authentication, switching, and authorization of their routine day-to-day card transactions.

A payment services hub can deliver these common services from a single processing system. Currently most banks and card processors deploy multiple systems for different product lines and geographies. Duplicity of functions increases complexity and reduces transparency of process, while adding to operational costs. In one example of a firm seeking to implement a common hub, leading processor- First Data is on the path to consolidate its 12 data centers across the U.S. into three data centers[6].

4.3. Implications

A successful consolidation of processing platforms can enable card processors to truly unlock the potential of scale and bring down cost of operations dramatically. However when compared to consolidating data centers, platform consolidation is a relatively tougher task as it needs the acquirer/processor to change systems at the merchant's end.

The SEPA directive in the eurozone area provides a unique opportunity for processors across eurozone to offer services at significantly lower costs, by consolidating systems across countries.

[6] First Data Cuts Data Centers as its Road Show Starts, September 2007 http://www.digitaltransactions.net/index.php/news/story/1511

5 Trend 2: Increased Focus on Delivering Value-Added Services to Merchants and Banks

5.1. Background and Key Drivers

The payment processing industry is consolidating through mergers and acquisitions. Processors are also entering into strategic revenue sharing alliances with large banks. Over the years, transaction volume growth has been the key to success for most large processors across the globe due to the commoditization of their service offerings. While size and presence across geographies still remain significant differentiators for an issuer or an acquirer to chose a particular processor, value-added serivces provided by them are increasingly being looked upon as value differentiators by the market.

It is indeed imperative for processors to offer various value-added services such as business intelligence support to banks, fraud and risk management services, and dispute management in case of chargebacks. These value differentiators help firms to stay ahead of the competition, especially amidst the increasing commoditization of the payment processing business which is reducing their pricing power.

Card processors play an important role in the payment card industry and have the capability to impact every stakeholder of the cards payment ecosystem-from the customer and merchant through financial services institutions, both issuers and acquirers. Every minor service offered that results in increased customer trust (fraud security), increased merchant satisfaction (faster transaction processing), and growth in accounts for the issuers and acquirers can be considered as value-added.

The key drivers for increased focus on value-added services by processors are:

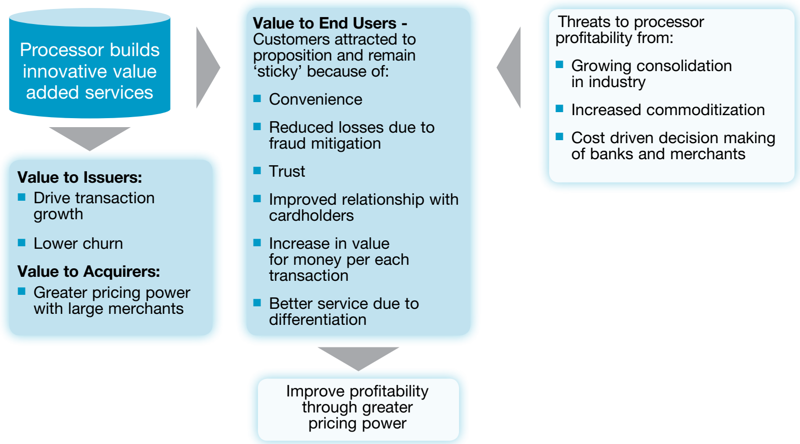
- Transaction processing has become a commoditized business, with processors focused on growing volume to gain economies of scale.
- There is an increased demand for value-added services such as fraud management, customer data management, and analytics from the customers.

5.2. Analysis

Processors offering value-added services, in addition to focusing plain vanilla payment processing, is not a new phenomenon in the payment card industry. However, the breadth of service offerings by processors is gradually increasing with processors sharing greater responsibilities from both the acquiring as well as the issuing side of business. While these services stand to benefit various stakeholders, they also help processors to maintain their profit margins in the increasingly commoditized processing business.

Certain value-added services offered by processors, such as fraud management, are more necessary in the current industry environment.

Exhibit 4: Processors Gain from Investing in Value-Added Services



Source: Capgemini Analysis, 2011

Processors can help various stakeholders by leveraging the enormous amount of valuable customer information that they have in their possession in their day to day payment processing business. In order to maximize the value from each cardholder and increase customer retention, issuers need the ability to migrate customers between products based on customers' changing needs. In these cases, processors can help issuers by tracking customer usage and providing them with important inputs on how they can enhance their value proposition to customers.

Overall, processors are expected to show greater value per transaction to support a higher price for their service offerings, as merchants challenge charges levied by processors.

5.3. Implications

Card processors have to focus on building value-added services that are relevant to their customers in order to differentiate themselves and avoid becoming commoditized.

Analytics services, such as tracking card usage and providing business intelligence services to issuers, serve the best interest of the entire card industry ecosystem, from firms to cardholders.

6 Trend 3: Increased Focus on Fraud Detection and Prevention to Minimize Merchant Losses

6.1. Background and Key Drivers

In their day-to-day business activity, processors are facing growing challenges while protecting merchants from different card frauds due to the increasing sophistication of fraudsters. Processors play a crucial role in helping merchants from fraud mitigation, by way of educating them about handling various fraud risks and keeping them informed about evolving fraud methodologies. Merchants feel that beyond education and information, they need to be up-to-date about the industry best standards and best practices followed when it comes to tackling fraud[7].

In general, merchants shoulder the majority of the fraud burden in the case of a friendly fraud[8] or a fraudulent request for a refund, making it imperative for processors to focus on providing better fraud protection services to merchant organizations. Merchants also have to face a significant fraud burden in all card-not-present transactions involving credit card usage over the phone, mail, or internet.

The key drivers for the increased focus on fraud protection services include:

- Merchants are often ill-equipped to control identify fraud, while security standards put in place by PCI SSC have not helped much to mitigate fraud.
- Ease of card data duplication in traditional card formats exposes merchants to fraud.
- Chargebacks and interest charged on chargebacks are significant drivers of cost which is generally borne by merchants.

6.2. Analysis

The amount of losses that merchants incur due to card fraud still remains large, with U.S.-based merchants reporting losses of more than US$100 bn in 2010. While the number of fraudulent transactions has come down in 2010, the average value of fraud transactions is seeing an upswing.

Approximately 4% of around 24.6 million small business merchants (less than US$1 million in annual sales) operational in the U.S. are being victims of some form of a fraud or the other[9]. While these small retailers place high importance on the security of customer information and avoiding card breaches, their understanding about available fraud prevention tools and measures to secure data can be insufficient. To bolster this expertise, continuing merchant education on card security issues, especially from processors, will be vital.

[7] LexisNexis True Cost of Fraud Study, 2011
[8] Chargeback by a customer after making a genuine online purchase
[9] "Small Business Data Security Study, 2010", First Data & National Retail Federation

Processors can help the merchant community through a greater focus on fraud detection and prevention technologies, as well as ensuring that merchants are kept abreast about emerging fraud techniques and the best practices that are used to mitigate fraud risks. Processors are adopting advanced risk mitigation tools specifically designed for online sales channels such as IP geolocation[10] and transaction verification services.[11] Moreover, online purchases are being subjected to additional authentication through Verified by Visa® and MasterCard® SecureCode™ in order to further reduce fraud risk for online merchants.

6.3. Implications

Card processors need to respond to the growing demand for fraud detection and prevention services from merchants and financial institutions in order to remain competitive.

Processors need to invest in training the merchant community about the evolving card fraud techniques to minimize fraud risks. Furthermore, investments also need to be made by processors in making card-not-present transactions more secure by promoting certain proven technologies such as transaction verification within the merchant community.

[10] IP geolocation enables users to identify geographical location of an IP address
[11] Transaction verification validates customer identity such as residence/billing address

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WHAT YOU NEED TO KNOW
CARDS

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