Global Trends in the Payment Card Industry 2013: Issuers

Key challenges faced by card issuers and their implications for the payment card industry
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1. Highlights

The payment card industry has witnessed a significant and steady growth over the past few years, driven by a very strong growth in the developing markets of Asia and Latin America. The key payment card industry stakeholders—card acquirers, card processors, and card issuers—are all witnessing shifting trends.

The card industry has seen an increasing amount of both online and offline fraud, including the creation of dubious websites to defraud customers.

Additionally, magnetic stripe cards, which store sensitive customer data unencrypted on the rear magnetic stripe, have been found to be vulnerable to various frauds such as skimming and counterfeiting. Chip-based EMV cards store customer data on a chip in encrypted format and are less vulnerable to fraud. This led to increased EMV adoption in several regions across the world. Issuers are also looking to implement various fraud management systems.

The phenomenal increase in smartphone use is leading to an accelerated growth in mobile commerce. Consumers are also increasingly looking towards innovative and cheap non-cash payment solutions. These two factors are driving the emergence of mobile wallets which transform a customer’s phone into a payment card.

With increasing competition in the market, card issuers have been concentrating on attaining customer loyalty. Many are collaborating with various merchants across various sectors to provide their clients with loyalty or co-branded cards.

1. LaToya Irby, “How Credit Card Skimming Works”, http://credit.about.com
2.1. Global Payment Card Industry Performance

Card usage across the globe has been growing since the financial crisis hit the world in 2008–2009. During 2011, the transaction volume for cards grew by 13.5%, which is considerably more than the growth rate of 9.2% seen during 2010 largely due to increasing debit card usage globally. The percentage share of cards in the mix of non-cash payments has been consistently growing and was 55.8% in 2010. In 2011, cards also remained the most preferred non-cash payment instrument globally, with 58.8% of the global non-cash payments originated via cards. The growing share of cards in the non-cash payment mix indicates an increasing preference for cards compared to other non-cash payment instruments, such as direct debit, credit transfers, and checks.

In developed countries, card transaction volume is very high, as consumers prefer to use cards even for low-value transactions. However, the developed countries have not been able to match up to the growth showcased by the emerging world. The growth in transaction volume of cards in Europe was in single digits at 8.6% in 2011 and in the U.S. it was 11.7%. This growth is hardly comparable to growth rates exhibited by Latin America, which saw a growth rate of 21.0% and Asia-Pacific, with a growth rate of 20% in 2011. Both Latin America and Asia Pacific have been showcasing enormous growth for the past few years.

In terms of number of card transactions per inhabitant, North America emerged as the market leader with an average number of transactions per inhabitant of 232.6 in 2011. This is significantly high when compared to Latin America (22.6 transactions per inhabitant) and Asia Pacific (13.1 transactions per inhabitant) in 2011. This trend is due to the high penetration of cards in North America. However, emerging countries have a high growth potential and card usage is likely to grow in the coming years as consumer preference shifts from cash to plastic. The growing acceptance of cards at various point-of-sale (POS) units is also likely to drive increased adoption and usage of cards in most emerging countries.
2.2. Key Payment Card Industry Participants

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

- **Card acquirers**: the merchants’ banks
- **Card processors**: third-party organizations that aid in card authorization and settlement processes
- **Card issuers**: the cardholders’ banks that issue the cards and maintains customers’ accounts
- **Card association network providers**: typically MasterCard® or Visa®—play an essential role in completing the card authorization and settlement cycle, as illustrated below

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


This paper focuses on the key trends that card issuers have been experiencing and how the industry is responding.
Apart from issuing cards, card issuers also bring new customers to the payment card industry and help maintain customer loyalty. Through schemes such as cash-back incentives and loyalty programs, they help drive cards into the most preferred non-cash payment channels.

Issuers normally generate revenue by charging customers an annual fee and by charging interest on any revolving credit. Increasing instances of fraud endanger these revenue streams as customers turn to other payment instruments. Issuers have started to adopt fraud mitigation mechanisms such as EMV chip-enabled cards which are more secure than the traditional card with a magnetic stripe.

Another key trend is the growing use of mobile wallets linked to smart phones and the internet. Also, customer purchasing patterns are driving the growth of co-branded cards with various innovative collaborations emerging to satisfy the needs of different consumers.

In summary, the three key trends for card issuers are:

1. Increasing security measures such as implementation of EMV standards and focus on fraud management systems
2. Growing use of mobile wallets
3. Growing emphasis on loyalty and co-branded cards

Several trends that were covered in 2012 Global Trends in the Payment Card Industry are still relevant but are not discussed in detail again in this paper.
4. Trend 1: Increasing Security Measures Such as Implementation of EMV Standards and Focus on Fraud Management Systems

4.1. Background and Key Drivers

The payment industry has always been impacted by card frauds. Financial services firms have always been a target for data breaches, insider data theft, and identity theft which negatively impact card users. Though security measures are introduced to counter fraudulent activities, credit card frauds keep evolving.

In the U.K. in 2002, the majority of card fraud was related to counterfeit cards. In 2012 the largest type of fraud is card not present transactions. The vast majority of this type of fraud involves the use of card details that have been fraudulently obtained through methods such as skimming, hacking into retailers’ data connections, or through unsolicited emails or telephone calls. The card details are then used to make fraudulent purchases.

Counterfeit card fraud involves the creation of a fake card by extracting details from the magnetic stripe of a genuine card and then using that card to make fraudulent purchases.


A major advancement to counteract this has been the introduction of EMV chip cards. EMV stands for “Europay MasterCard Visa”, the three players who together came up with the technology. In the U.K., after the introduction of EMV chip cards, counterfeit card fraud has dropped 75% since it peaked in 2008 and fraud losses on the U.K. High Street have fallen 75% since 2004.

Source: “Fraud the Facts 2013”, Financial Fraud Action UK, July 2013

<table>
<thead>
<tr>
<th>Fraud Type</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>+/- Change 11/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card-Not Present</td>
<td>110.1</td>
<td>122.1</td>
<td>150.8</td>
<td>183.2</td>
<td>212.7</td>
<td>290.5</td>
<td>328.4</td>
<td>266.4</td>
<td>226.9</td>
<td>220.9</td>
<td>245.8</td>
<td>+11%</td>
</tr>
<tr>
<td>of which e-Commerce</td>
<td>28.0</td>
<td>45.0</td>
<td>117.0</td>
<td>117.1</td>
<td>154.5</td>
<td>178.3</td>
<td>181.7</td>
<td>153.2</td>
<td>135.1</td>
<td>139.6</td>
<td>140.2</td>
<td>+0.4%</td>
</tr>
<tr>
<td>Counterfeit</td>
<td>148.5</td>
<td>110.6</td>
<td>129.7</td>
<td>96.8</td>
<td>98.6</td>
<td>144.3</td>
<td>169.8</td>
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<td>47.6</td>
<td>36.1</td>
<td>42.1</td>
<td>+16%</td>
</tr>
<tr>
<td>Lost/Stolen</td>
<td>108.3</td>
<td>112.4</td>
<td>114.4</td>
<td>89</td>
<td>68.5</td>
<td>56.2</td>
<td>54.1</td>
<td>47.7</td>
<td>44.4</td>
<td>50.1</td>
<td>55.2</td>
<td>+10%</td>
</tr>
<tr>
<td>Card ID Theft</td>
<td>20.6</td>
<td>30.2</td>
<td>36.9</td>
<td>30.5</td>
<td>31.9</td>
<td>34.1</td>
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<td>38.2</td>
<td>38.1</td>
<td>22.5</td>
<td>32.1</td>
<td>+42%</td>
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<tr>
<td>Mail Non-Receipt</td>
<td>37.1</td>
<td>45.1</td>
<td>72.9</td>
<td>40</td>
<td>15.4</td>
<td>10.2</td>
<td>10.2</td>
<td>6.9</td>
<td>8.4</td>
<td>11.3</td>
<td>12.8</td>
<td>+13%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>424.6</strong></td>
<td><strong>420.4</strong></td>
<td><strong>504.8</strong></td>
<td><strong>439.4</strong></td>
<td><strong>427.0</strong></td>
<td><strong>535.2</strong></td>
<td><strong>609.9</strong></td>
<td><strong>440.0</strong></td>
<td><strong>365.4</strong></td>
<td><strong>341.0</strong></td>
<td><strong>388.0</strong></td>
<td><strong>+14%</strong></td>
</tr>
<tr>
<td><strong>U.K.</strong></td>
<td><strong>294.4</strong></td>
<td><strong>316.3</strong></td>
<td><strong>412.3</strong></td>
<td><strong>356.6</strong></td>
<td><strong>309.9</strong></td>
<td><strong>327.6</strong></td>
<td><strong>379.7</strong></td>
<td><strong>317.4</strong></td>
<td><strong>271.5</strong></td>
<td><strong>261</strong></td>
<td><strong>286.7</strong></td>
<td><strong>+10%</strong></td>
</tr>
<tr>
<td><strong>Fraud Abroad</strong></td>
<td><strong>130.2</strong></td>
<td><strong>104.1</strong></td>
<td><strong>92.5</strong></td>
<td><strong>82.8</strong></td>
<td><strong>117.1</strong></td>
<td><strong>207.6</strong></td>
<td><strong>230.1</strong></td>
<td><strong>122.6</strong></td>
<td><strong>93.9</strong></td>
<td><strong>80</strong></td>
<td><strong>101.3</strong></td>
<td><strong>+27%</strong></td>
</tr>
</tbody>
</table>

Source: “Fraud the Facts 2013”, Financial Fraud Action UK, July 2013

Still, there have been several high profile data breaches targeting the payment card industry. In May 2013, hacking of card processors in the U.S. and India led to a card fraud of US$45 million. Eight men were involved in a scheme where they raised the limit on prepaid debit cards and then withdrew cash from ATMs.2

The global payment card industry experienced gross fraud losses of US$11.27 billion in 2012, up 14.6% over the prior year.3 Of the US$11.27 billion, card issuers lost 63% and merchants and acquirers lost the other 37%. Incidence of card fraud has been increasing consistently over the years and now a sophisticated criminal market is in place to execute frauds.

4.2. Analysis

Not only are the numbers of transactions growing, but the numbers of different transaction media are increasing as well. This provides an added number of channels that fraudsters can exploit. While processors are investing in and upgrading their processing systems to address fraud, card issuers are also taking steps to address these concerns.

Many issuers now use the security mechanism of one time password. Whenever a consumer makes a purchase, the card issuer will send a code to the consumer’s registered number or e-mail, which will have to be punched in the transaction portal within a stipulated time in order to complete the transaction.

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Exhibit 5: Adoption of EMV in Key Geographies, 2010–2012


4 The 2010 numbers are as of September end; The 2011 and 2012 numbers are as of December end
Another area where the issuers are investing to minimize card fraud is provision of EMV chip-based cards. EMV cards are harder to breach and duplicate by design. Most of the countries across the world are adopting EMV standards to mitigate fraud losses. For example, in the U.S., the EMV adoption date had been fixed at April 2013 for merchants, followed by a liability shift on fraudulent transactions from issuers to acquirers by 2015. China also plans to stop producing and accepting magnetic stripe cards after 2015.

EMV cards store payment information in a secure chip rather than on a magnetic stripe and the personalization of EMV cards is done using issuer-specific keys. Unlike a magnetic stripe card, it is virtually impossible to create a counterfeit EMV card due to the encrypted nature of the information.

In 2012, global gross fraud losses equaled 5.22¢ per $100 in total volume, up from 5.07¢ per $100 in 2011. Fraud as percentage of total global volume was lowest for PIN-based debit cards at 1.10¢ per $100 in total volume. Also, the losses due to fraud for all cards reached US$5.33 billion in the U.S. in 2012, up 14.5% from 2011. Issuers lost 64% or US$3.41 billion and merchants lost the other 36% or US$1.92 billion\(^5\).

Card issuer losses occur mainly at the point of sale from counterfeit cards. Issuers bear the fraud loss if they give merchants authorization to accept the payment. Merchant and acquirer losses occur mainly on card-not-present (CNP) transactions on the web, at a call center, or through mail order because issuers can chargeback fraudulent transactions.

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Card issuers are also turning to fraud management systems. Upgrading fraud systems with new rules, statistical models, and acquired knowledge is easier with centralized systems. Card issuers also collect and analyze real time data to prevent fraud and acquire better customer knowledge. High end mathematical models are likely to improve fraud detection by creating larger data samples for better inference about a population. New technology and process solutions such as virtual credit cards and instant customer alerts are being deployed to minimize customer fraud.

For example, Marketelligent developed a system for a card issuer facing transaction fraud issues. It developed a real-time fraud scoring engine and identified domestic and international fraud hotspots. It created new authorization rules by carrying out a detailed segmentation of recent transactions to segregate the fraud population on the basis of impact.

### 4.3. Implications

EMV cards require an encryption chip to be embedded into the card, which leads to a higher cost per card. The cost to issuers may further increase as they also look to implement fraud management systems involving real time customer data analysis. However, issuers will gain in the long run with reduced incidences of fraud.

Considering the growing presence of EMV cards, issuers may need to partner with merchant acquirers to assist them in implementing EMV terminals. Implementation of EMV at terminals is essential for a consumer to make a transaction through his EMV card.

Since EMV may become a global norm in the near future, issuers should have their maximum focus on such cards. A good strategy to deal with the growing demand and adoption of EMV cards can help issuers gain a competitive edge in the market and also reduce issuance costs in the long run.
5. Trend 2: Growing Use of Mobile Wallets

5.1. Background and Key Drivers

Innovation and technological advancement is leading to a constant change in the payments ecosystem. New payment mechanisms offer customers unprecedented features, security, and convenience. One such mechanism which has been making its presence felt in the past few years is the mobile wallet. As of August 2013, global mobile traffic was estimated at 17.4% of all internet traffic, up from 11.1% in 2012 and 4% in 2010. In 2012, on the day after Thanksgiving that traditionally marks the start of the Christmas shopping season in the U.S., 24% of all online shopping took place from mobiles and tablet devices, up from 6% in 2010. In India, mobile internet traffic has already surpassed desktop traffic as of May 2012.6

This era of mobile commerce has triggered the emergence of mobile wallet solutions. Since Google introduced its wallet in 2011, several other players have also entered the field. Big non-banking players such as Isis, Square®, PayPal™, and Levelup have bolstered merchant acceptance of mobile wallets. Merchants feel safe when dealing with the products of such big names.

5.2. Analysis

Mobile wallets are essentially mobile payment applications that transform a customer’s physical wallet into an e-wallet. Consumers can essentially transfer all the plastic cards in their physical wallets—credit, debit, prepaid, loyalty and gift cards—to their mobile wallet. Since all the information is stored on the consumer’s phone, a consumer can make a payment just by tapping the phone at a Point of Sale.

A mobile wallet makes use of the near-field communication (NFC) chip inside a consumer’s smartphone or tablet to make a purchase. When a consumer wishes to pay through a mobile wallet, he opens a particular application, keys in his personal identification pin, and then selects the payment instrument (credit card, debit card, pre-paid card or netbanking). The consumer then just needs to tap the phone at a payment terminal and the payment information is transmitted through NFC technology. Consumers can use mobile wallets to make payments for online transactions as well.

When Google Wallet™ started in 2011, it had limited market space due a limited partnership that only let customers use a Citi MasterCard to make payments. Now, in 2013, the wallet supports all MasterCard, Visa, American Express®, and Discover® credit and debit cards.

Customers using the new mechanism soon encountered situations where they could not or did not want to tap and pay. So in 2012, Google introduced the physical Google Wallet card. The Google Wallet card worked just like a regular credit card and charged the amount to the default card which the consumer had linked to Google Wallet. A customer could now leave all his credit cards at home and just carry one card and a phone. The default card could be changed via the phone enabling the customer to use whichever card he wanted. Google also revealed plans to enhance its Wallet service with location-aware store cards, boarding passes, and event tickets.

The main drivers of the growth of mobile wallets are:

- Innovation and technological advancements in the smartphone market, which provide an excellent platform for mobile wallets to flourish
- Increasing use of smartphones among consumers
- The entry of big non-banking players in the mobile wallet market

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In 2013, Google came out with a new feature which allowed the consumer to send money to any U.S. resident with an e-mail address. It also enhanced the coverage of its wallet to be accessible on phones without the NFC technology.

The latest Google Wallet app also lets the consumer import his loyalty cards into his phone. The consumer enters the card’s number into the app, and earns points by scanning the app at the checkout counter. For this Google has made arrangements with Alaska Airlines, Belly, and Red Mango, and plans to expand the network to cover more vendors, including Avis Car Rental, BJ’s Restaurants, Cosi, Hard Rock International, InterContinental Hotels Group, Marriott International, Raley’s, and The Body Shop.

In 2013, Google also came out with Google Offers which allows customers to get discounts on local products and services as well as brand-name stores. Offers found through Google Maps, Google Search, or Google+ get stored in a customer’s Google Wallet account and are made available at the time of purchase. Other types of coupons, such as Valpak, are likely to soon become available.

Apart from the core service of enabling contactless payments, consumers can:

- check the balance of a prepaid account
- view transaction industry and the instrument used for each transaction
- store coupons and check in store offers of participating merchants
- apply coupons or reward points while making transactions
- store digital receipts

Merchants can also use this channel to engage in targeted marketing.

5.3. Implications

As the market for mobile wallets grows, merchants will need to make a shift from old card readers and invest in NFC payments infrastructure. In addition to expanding the scope of target marketing, the phenomenon is likely to open doors for new marketing avenues such as the provision of coupons or gift cards in the consumer digital wallet.

Currently, the revenue arising from card payments are shared between the players in the cards ecosystem and the banks. As mobile wallets strengthen their hold in the market, the telecommunication players and the software vendors are also likely to seek a share in this profit. Thus, issuers may be challenged with a potential loss of customer accounts and profit. As such, issuers may also consider coming out with their own digital wallets.

6.1. Background and Key Drivers
Co-branding has been an increasingly popular option for both merchants and card issuers across the globe. Today’s consumers demand more choices than ever before. Each individual is different and looks for products that best suit their particular requirements. A co-brand partnership can help fulfill specific requirements of the customer along with offering some other advantages to the issuer:

- Increased revenue due to enhanced customer loyalty
- Promising new customers
- Lower customer acquisition costs

Co-branding is essentially a partnership between the issuer, processor, and the retail merchant who may be an online player or offline player. Co-branding provides enhanced satisfaction to the consumers who like the retail merchant while increasing revenue and loyalty for both the merchant and the issuer.

6.2. Analysis
Essentially, the idea behind co-branding is to acquire customers who have a preference for a particular brand with whom a co-branding arrangement has been reached. The issuer offers special rewards and benefits when a customer makes a transaction with that particular merchant.

These benefits usually come in form of points that can be redeemed at the merchant’s store. A consumer is also rewarded with points on transactions made at other stores and those points can again be redeemed at the co-brand merchant’s store.

The cards industry has seen an increasing amount of co-branding across various industries, the most prominent ones being the links between airlines and hotels.

Issuers are also entering into co-branding arrangements with players across sectors. Citibank, one of the world’s biggest banks, has several co-brands in the U.S. encompassing travel (American Airlines and Expedia), hotels (Hilton hotels) and telecom (AT&T).

Exhibit 6: Examples of Citi Co-branding

Source: http://www.citi.com
Globally, issuers have been forming innovative partnerships with various players:

- In February 2011, Kotak Bank in India entered into a co-branding arrangement with PVR, the cineplex leader in India. Under this arrangement, the card holder can get two free tickets to a movie of their choice every month.  

- Citibank India has a co-branding relationship with Indian Oil under which the card holder can receive up to 40 liters of free fuel in a year.

- Absa Bank in South Africa has also come out with a very distinct card to enhance customer loyalty. The Fleet Card allows the consumer to use one method of payment to pay for the different costs associated with his vehicles. He can choose options for fuel; fuel and tolls; or fuel, tolls, and maintenance. Each card issued on the central account is vehicle-specific, meaning that it can only be used to service the particular vehicle that has its registration printed on the card.

- DBS Bank in Singapore has a co-branding partnership with Takashimaya, a shopping center in Singapore, where the card member gets a 6% voucher rebate each time he shops at Takashimaya.

### Exhibit 7: Some Innovative Global Co-Branding

![Co-Branding Credit Cards](image)

Source: Company Websites

In a recent report from MasterCard:

- Co-branded credit cards comprise approximately 50% of all credit card spending.
- Co-branded cards drive usage and preference as consumers seek to “get something back” for their business and loyalty.
- Co-branded card spending is growing at a faster rate than that of non-rewards cards.

Though co-brand cards have been in existence since early 1990’s, they are still a powerful commodity.

In a recent U.S. survey, it was found that:

- While hundreds of smaller and less profitable co-brand programs have been eliminated, more than 120 significant co-brand credit card partnerships remained.
- For every 100 people using a credit card branded with the American Express, Discover, Visa, or MasterCard logo, there are presently 58 co-brand/affinity card users.
- However, percentage of consumers using co-branded cards has fallen from 55% in 2009 to 43% in 2013.
It was also seen that co-branded Visa, MasterCard, Discover, and American Express credit cards generated 35% of general-purpose credit card purchase volume in 2012, or $774 billion out of $2.21 trillion. The dollar volume represents a significant gain over 2011, but these figures represent a decline both in market share and in total dollar volume compared with previous years\textsuperscript{10}.

Though, the market of co-brand cards seems to have reached maturity in the U.S, it is still a growing phenomenon in the emerging world:

- In September 2013, Air India, India’s national airline, tied up partnered with SBI Cards to launch a co-branded travel credit card. The new Air India SBI card allows a customer spending INR 500 thousand in a year to earn up to three Delhi-Mumbai return tickets on Air India\textsuperscript{11}
- In October 2013, IHG and China CITIC Bank announced the official launch of the IHG Rewards Club CITIC Co-branded Credit Card\textsuperscript{12}. The IHG Rewards Club CITIC Co-branded credit card will provide frequent travelers the opportunity to earn free hotel stays. The co-branded credit card will offer cardholders double points on their spending at IHG hotels worldwide, along with 15% off best flexible rates at all 200 IHG hotels in Greater China
- In June 2013, Axis Bank of India rolled out a card in association with MasterCard and Miles and More, Lufthansa’s international frequent flyer program\textsuperscript{13}
- In Singapore, American Express and Singapore Airlines launched their fourth KrisFlyer co-brand credit card aimed at premium customers\textsuperscript{14}. The minimum annual income required for a KrisFlyer Ascend card is SGD 50,000
- MasterCard brought its affluent loyalty card to the Asian Markets in 2012. MasterCard intends to introduce its World Elite card in several Asian markets. It is aimed at private banking clients and provides various travel benefits, such as complimentary airline seat upgrades and discounts on private jet rental, along with travel services and a 24/7 concierge service

### 6.3. Implications

Co-branding partnerships will continue to grow in the coming years considering the amount of benefits they bring to both the issuer and the merchant. Issuers are likely to pursue co-branding with much more determination since it brings a range of benefits to them, including:

- **Advertising:** Since all co-branded cards carry the brand’s logo, they remind the consumer of the brand even when he uses it at non-brand locations
- **Increased loyalty:** The consumer will prefer to shop at the merchant rather than competitors to get the added benefits, and will use the issuer’s card to make the transaction resulting in additional revenues to both parties

Issuers will look to identify the areas where co-branding is not yet prevalent but could reap the benefits that co-branding offers.

\textsuperscript{10} ibid
\textsuperscript{11} “Air India, SBI Cards launch co-branded credit card”, September 17, 2013, http://www.thehindubusinessline.com
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