In a recent research report, the European ePayment Systems Observatory (ePSO) examined the state of scratch cards as an Internet payment mechanism in Europe and concluded that although several attempts have failed, their simplicity and familiarity to consumers make scratch cards likely to succeed if they can reach critical mass.

This research report takes a step back from that conclusion to explore some of the larger challenges that prepaid card schemes face in the market, with particular emphasis on the underlying cost model, the barriers to entry, and the end-to-end value proposition. It concludes with recommendations for all prepaid card providers if this new online payment mechanism is to survive in today’s market.

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Prepaid Cards: An Emerging Internet Payment Mechanism

Prepaid Cards in Context

Prepaid cards, originally conceived as a convenient way for consumers to pay for telephony access, are currently being repurposed for general use as payment mechanism on the Internet. The driving force behind this shift is the realization that the cards, which can be purchased through convenience stores and other retail outlets, addresses the payment needs of:

- Teenagers with online access, disposable income, but no credit card;
- Individuals who hesitate to purchase online because of privacy fears;
- Consumers who are fearful of using their credit/debit card on the Internet.

The total size of this opportunity is hard to estimate, given the demographic overlap of targeted consumers and differences in national payment markets around the world, but it is believed to be significantly large enough that dozens of companies, both startups and incumbents, are currently vying to retool and deploy prepaid cards as an online payment mechanism.

How Prepaid Cards Work

Prepaid cards that are used for online payments are typically distributed as simple scratch-off cards, embossed plastic cards, or magnetic stripe cards. The cards are available in different denominations and can be purchased from a retailer with any payment mechanism, but most typically anonymous cash. As distributed to retailers, the cards are inactive and must be activated prior to use as a payment instrument.

- **Scratch Off Card.** In its most simple form, a unique account number is concealed beneath an area of the card that can be scratched off to reveal the underlying digits. A card is activated by the consumer when they visit the prepaid card provider’s web site, key in the account number revealed under the scratch-off area, and select a passphrase to be used as a PIN.

- **Embossed Plastic Card.** The account number is embossed and visible on the front of the card, but an associated activation code is concealed on the back of the card under a scratch-off area. The activation code must be revealed prior to consumer activation. The account number, together with the activation code, is combined with a consumer-selected passphrase to activate the card prior to use as a payment instrument.

- **Magnetic Stripe Card.** The account number is printed on the face of the card and encoded on the back of the card in the magnetic stripe. The card is Point-of-Sale (POS) activated by the merchant by swiping the card through the same magnetic stripe reader used for credit/debit card transactions. When activating the card, the merchant assigns a temporary PIN that is then reset to a permanent passphrase by the consumer using their browser prior to making actual purchases.

In all three cases, once the card is activated, it is the long-term account number and secret passphrase that unlocks the value held centrally by the prepaid card provider. The card itself becomes secondary, if not useless, for Web purchases, and could be discarded. Most prepaid schemes support multiple payment mechanisms, sometimes both online and terrestrial, for consumers to replenish the value in their accounts after initial purchase.
End-to-End Value Proposition

The basic model behind all of these prepaid card mechanisms includes some combination of retail distributors, consumers, merchants, and prepaid card provider. Each has their own role to play in the total end-to-end system and their own value proposition.

- **Retail Distributors.** Retail outlets and convenience stores are recruited and signed up to engage consumers, distribute cards, and collect funds from consumers for payment to the prepaid card provider. Retail distributors keep a commission on the collected funds.

- **Consumers.** Consumers are recruited into the payment system through online advertising, by online merchants, in person through retail card displays, and indirectly through strategic partnerships and alliances. Consumers benefit from the anonymity associated with prepaid cards, if purchased with cash, and generally participate in the payment system at face value. Prepaid cards may also be presented as gifts to friends or family members.

- **Merchants.** Online merchants are recruited based on their desire to reach a new untapped audience of consumers that are not credit/debit card enabled or willing. Merchants are also drawn towards the financial benefits of prepaid funds without the risk of downstream chargebacks. Depending on the systems provider, there may also be additional incentives in the form of low transaction fees or affiliate fees for capturing new online consumers. Merchants are paid on a regular basis by the prepaid card provider for goods sold using prepaid cards. In some cases, brick and mortar merchants may use the same prepaid cards, and this can be used to enhance consumer appeal as well as support click and mortar retail strategies.

- **Prepaid Card Provider.** The prepaid card provider takes responsibility for the deployment and ramp up of the overall system in the marketplace, acts as the payments processing hub for all transactions, and financially benefits from the control of the whole system. The clear objective of all prepaid card providers is to establish themselves as the preferred alternative payment provider on the Internet—i.e., the payment provider that is always offered to consumers along side major card brands such as Visa, MasterCard, American Express, and others.

Not all prepaid card schemes follow this exact model, but all embrace some variations of these participants, motivations and goals.

Barriers to Entry

What’s so hard about prepaid cards as an online payment instrument? The so-called “barriers to entry” to develop and deploy such systems are primarily business oriented—revenue models, distribution channels and alliances—and not technology oriented.

The prepaid cards themselves can be easily obtained, privately branded and distributed from multiple sources. The required Internet technologies can be readily assembled using commodity building blocks such as the generic browser, SSL, any SQL database, any server technology, the appropriate scripting language, and the technical talent to pull it all together. The only real area of technical differentiation is in passing purchase authorization back to online merchants.
However, with the barriers to entry so low, providers in this segment of the payment market have no protection from better-financed competitors entering the market. In other words, if a prepaid card provider is successful, it will be extremely hard to defend that success from hungry competitors.

The one area of technical differentiation—merchant payment authorization—can be protected through the patent process but that doesn’t prevent other competitors from entering the market; it only prevents them from being interoperable with the protected technique. Hardly strategic, perhaps even counter strategic.

As an example, in the United States InternetCash pioneered the use of prepaid cards as online payment mechanisms. Once InternetCash revealed its plans in October of 1999, other companies rushed such products as BreezeCard, Cybermoola, ePAID, iMC Card, MadCash, M2 Card, and Mon-e to market with essentially the same solution targeted at the same customer. With no differentiation, Cybermoola, M2 Card, and MadCash have all imploded.

The same phenomenon is happening outside the United States, with SplashPlastic offering similar services in the UK. TECHNOCASH is addressing the Australian market, but, in an innovative twist, differentiates itself by using the Australian postal system as the retail card distributor.

**Adoption Complexity**

If the barriers to entry are so low, why haven’t more prepaid card providers been successful? It appears that the real problem is overall adoption complexity. Returning back to the end-to-end valuation proposition, there are compelling reasons to embrace prepaid cards as online payment instruments, but to succeed, all parties in the overall system must embrace the approach.

- Major retailers must distribute the cards to provide widespread availability of the prepaid cards.
- Large online merchants must support the payment mechanism before most retailers will distribute the prepaid cards.
- Significant numbers of consumers must participate to draw in the online merchants and retail distributors.
- Recognizable merchants, with compelling goods, must participate to draw consumers to use the prepaid cards.

Where does adoption start? There is, obviously, no easy answer. The most significant problem facing prepaid card providers is too many different classes of customers each requiring simultaneous adoption from the others. In other words, there are just too many variables in the adoption equation.

The low barrier-to-entry problem compounds this adoption problem even further. Not only must retailers sign up to distribute the cards, but each retailer must decide which prepaid cards to stock and distribute. Because the cards are incompatible as payment instruments, the simplest approach for retail distributors is to wait, take no immediate action, and see how the market resolves this problem. Online merchants find themselves in the same situation, as do consumers to a large degree. In fact, consumers are confronted
with a real dilemma if they effectively deposit cash into a prepaid card account that may then not be accepted by the online merchants they choose to shop with.

**Business Models**

With no technical barriers to entry, numerous competitors with the same solution, and hesitancy on the part of all system participants, many providers hope that a superior business model will be the key to success. However, the business model for prepaid cards used as online payment instruments is extremely unforgiving.

In addition to the go-to-market development cost required to reach brick and mortar retailers, online merchants, and consumers, the cash flow balance between revenue generation and operational cost can be extremely tricky to get right.

On the revenue side, there are a number of potential revenue sources from merchants such as account activation fees, account maintenance fees, transaction fees, and periodic settlement fees. In addition, large merchants may be willing to pay for on-card advertising or retail display co-branding. Branding can also be extended to the Web pages used for activating cards and checking account balances.

Payment system providers also enjoy float from the prepaid value they hold on account between the time of card activation and merchant settlement. Although “breakage”, the funds held on account that are never spent or accessed, is considerable, it is doubtful that prepaid card providers can retain those funds indefinitely without being claimed as abandoned property rightfully belonging to local government.

Payment system providers with strong brands, particularly those with existing terrestrial-world brands, may also be able to levy upfront fees on consumers in exchange for the comfort and trust associated with the brand.

On the expense side, the most significant line item is the cost to acquire funds through the retail distribution channel. In addition to the cost to produce—or more typically acquire—the prepaid cards, there are also costs to physically distribute the cards out to POS. More problematically, the hidden cost in the distribution channel is the 8-10% commission retained by the retailer. A prepaid card provider who nets over 90% of the face value of the card is doing exceedingly well.

In aggregate, physical card costs, distribution costs, and the retailer commission take a sizeable piece of the inbound cash flow. Yes, these costs can be somewhat offset with the revenue sources mentioned above, but the prepaid card providers are still forced to charge high transaction fees, far above standard 2-3% credit card transaction fees if they are to have a profitable business. This is hard to do with merchants who are constantly trying to lower their payment processing costs.

Prepaid card providers are going to have to bring more incremental consumers and more transactions to merchants to justify the increased costs associated with retail distribution through brick and mortar distributors.
New Competitors

Rushing in to satisfy the needs identified by the prepaid card providers are several traditional incumbents in the financial services market, as well as some of the telecommunications companies who pioneered the original prepaid card for telephony.

- **American Express.** American Express has recently signed a distribution agreement with 7-Eleven to create and distribute the 7-Eleven® Internet Shopping Card. The card has all the benefits of a prepaid card, can be anonymously purchased, and is accepted at any online merchant who already accepts American Express. This approach lowers the adoption complexity considerably by leveraging the existing merchant processing infrastructure. With merchants already enabled, American Express as the account holder and payment systems provider, and 7-Eleven as the retail distributor, all go-to-market spending can be focused on ramping up consumers. To mitigate the cost of the retail distribution channel, consumers are charged a 4% load fee above and beyond the face value of the trusted card. This 4% load fee might be thought of as the price the consumer must pay to achieve anonymity in online payments.

- **The Visa Network.** In the United States, Visa has recently started to offer prepaid cards, called Visa Buxx, through some of their member banks. Unlike the American Express value proposition, the cards do not offer anonymity and actually have the name of the holder embossed on the front of the card. They are targeted at kids and teenagers, and can only be loaded with funds from a parent’s credit card. Like the approach used by American Express, Visa Buxx leverages the existing merchant processing infrastructure. It also eliminates the retail distribution costs by introducing the traditional member bank back into the picture to recruit consumers, process card applications, issue prepaid cards, and hold the account value. Not only does this approach sacrifice the anonymity typically associated with prepaid cards, it goes so far as to require applicants to submit their social security number (SSN). On an upbeat note, at least the prepaid cards are issued at face value.

- **The MasterCard Network.** Leveraging the reach of the MasterCard network, Next Estate has launched the iGEN MasterCard, a prepaid card that can be used anywhere MasterCard is accepted. The card is available through retail outlets in the Washington D.C. metropolitan area, with planned expansion to an additional 30 states anticipated by September 2001. The card is currently distributed by Rite-Aid, one of the largest drug store chains in the United States with over 3,600 locations. Account value is held by PointPath Bank. The overall approach is similar to American Express’ approach. Instead of a 4% load fee, consumers pay a $3.95 convenience fee, plus a retailer specific uplift, to load funds into their account. And instead of online use throughout the American Express merchant network, the consumer can use the card throughout the larger MasterCard merchant network. Once depleted, the account balance can be topped up through the iGEN MasterCard website or through the retailer if anonymity is to be retained.

- **Dual Use Cards.** Another new approach is the dual use prepaid card that can be used as both a prepaid telephony phone card and a prepaid Internet purchasing card. This approach was conceptualized by PocketPass and tested in a limited market trial, which has not yet evolved into production. DuoCash, formed in late CY2000, has also adopted this approach and is gearing up for market introduction. While potentially broadening the value proposition for consumers—they
can do more with the card besides just make online purchases—this approach also provides retail distributors with an opportunity to share revenue with the telephone service provider. However innovative, the dual use card still suffers from adoption complexity and the requirement to ramp up online merchants.

- **Click and Mortar Cards.** Prepaid cards in the United States have captured a sizable niche within traditional brick and mortar merchants, particularly with large, national chains. Typically, merchants feature prepaid cards as “gift cards” that are activated at the POS terminal when purchased. In this model, the merchant usually provides their own payment services and holds the prepaid value in their own accounts. To date, these merchant-issued cards have been restricted to use only at stores within a chain or franchise. However, some major merchants are beginning to accept these cards at their affiliated websites. It is certainly feasible for these merchants to extend use of the cards they issue to other online merchants, and even to other brick and mortar merchants. By leveraging an established prepaid card distribution and payment infrastructure, as well as their brands, large merchants may be able to expand usage of their prepaid cards while increasing value to consumers and other online merchants. Merely increasing the net prepaid assets held by the card issuer may provide sufficient business justification to expand into the online card business.

**Recommendations**

Given these challenges and the entry of new competitors into the market, there are a number of strategies that could be pursued to circumvent the problems raised in this report.

- **Focus on Existing Payment Gateways.** Individual prepaid card providers cannot afford the cost (both time and money) to recruit, deploy, and support the thousands, if not tens of thousands, of online merchants required to achieve critical mass. Providers should work closely with existing payment gateway providers, such as Verisign and CyberSource, who already have access to—and good relationships with—online merchants. This will not be free, nor will it be cheap, but it is a vital first step toward establishing critical mass with online merchants, which is itself only a first step toward ramping up overall usage of the system.

- **Form a Prepaid Card Consortium.** Prepaid card providers should not compete based on proprietary authorization interfaces to online merchants. Providers should work closely together, in the context of a consortium, to standardize the process of recruiting and supporting additional online merchants. Prepaid card providers will fail, as a category, if they fight at each merchant with incompatible merchant kits. They should work together as a group on things that are clearly not a core part of their value proposition, but still critical to their success.

- **Adopt a Portfolio Model.** There is too much cost in the retail distribution channel to force every consumer through that channel. Prepaid card providers should leverage low-cost online distribution to reach some consumers, should leverage retail distribution to reach others, and should embrace other innovative distribution mechanisms to establish consumer accounts. Each of these will have a different cost structure. By embracing all of these distribution channels, and thinking of them as a portfolio, prepaid card providers can lower their overall cost to capture consumer funds, while maximizing their reach out to consumers.
• **Leverage Strategic Alliances.** In-house, branded, prepaid gift cards have emerged as one of the largest growing payment mechanisms in the United States. Merchants like Borders Book Store and Barnes & Noble individually sold more prepaid gift cards than the entire Internet prepaid card industry, which is still in its infancy. Prepaid card providers should establish strategic alliances with branded brick and mortar retail distributors to extend their in-house systems out onto the Internet, or the Internet systems in-house to the brick and mortar merchants.

To succeed, prepaid card providers are going to have to rise above their instincts as competitors and work hard as a group in category competition with other payment mechanisms. Before any one provider can differentiate themselves on features and value, prepaid cards are going to have to overcome their adoption complexity and business model challenges and establish themselves as a viable Internet payment mechanism along side the other established instruments.

**About the Author**

Russ Jones is a general partner with The NuVantage Group, an innovation-to-market consulting group. Russ is one of the pioneers in commercial use of the Internet, having led the creation of the first commercial website in 1993 and the subsequent development of many of the online marketing techniques now used throughout the industry. He describes the lessons learned from this experience in *The Internet Strategy Handbook*. He currently works with companies in the information economy on strategy development and business models. He can be reached at rjones@nuvantage.com.

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