

A Euronet Software Solutions White Paper



Another Card in the Mix

An overview of China Union Pay

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A publication of Euronet Software Solutions

Introduction

The consumer payment industry has been primarily dominated by two card association giants; MasterCard and Visa. In the aggressive market of payments, a new card scheme – China UnionPay (CUP) – has risen in competition with the major card associations. Gaining a footprint in the global market by stretching its reach outside of China, CUP is rising to meet the market's need for another choice in payments.



With its origins in the heaviest populated region of the world, coupled with the expansion of international tourism, Asian expat growth and competitive fee structures, CUP could be an attractive addition to payment selections offered by financial institutions. Issuers and acquirers should be evaluating this new player in the payments market space as it gains significant acceptance in the industry.

China UnionPay Payments

The China UnionPay network system was founded in March 2002 and is the only card processing company in China. As a card association for China's banking card industry, it operates under the approval of the People's Bank of China (PBOC). The China UnionPay network payment card, known as UnionPay or CUP, was officially launched in 2003. Now that CUP has spanned into the global market, it has 20 subsidiaries and more than 160 member banks worldwide. There are more than 1.8 billion CUP cards issued inside mainland China and more than 40 million cards issued outside mainland China.

Support for a Variety of Transaction Models and Payment Channels

Along with their competitors, CUP provides support for a variety of transaction models and payment channels. CUP offers support for traditional ATM and POS transactions, as well as contactless and mobile payment transactions.

1, 2 China UnionPay website article *China UnionPay: Various Initiatives Adopted to Create High-Quality Bankcard Payment Environment for the World Expo*

Chip Support

Aware of the movement of fraud into unprotected areas, CUP plans to protect their brand by EMV chip technology. The positive response to the pilot phase of chip processing for CUP has resulted in the deployment of CUP chip support in the global market.

Contactless and Mobile Payment

China UnionPay is aggressively preparing for the World Expo 2010 in Shanghai where they will be promoting a variety of secure convenient payments to meet consumer needs. There has been significant investment in infrastructure to support a variety of payments including chip, mobile and contactless.

The CUP Convenience Card will be promoted at this event as the contactless solution for 'quick and easy to use' payments.

With more than 190 countries and more than 50 international organizations currently registered, an astounding number of 70 million visitors are expected to attend and utilize the contactless solution in everything from gate admittance to retail merchant payments at the event.

According to an article on the China UnionPay Web site, nearly 6,000 units of POS terminals at CUP card merchants have completed contactless transformation to support on-site mobile payment. Additionally, remote mobile payment business has been launched in parallel to support transactions like credit card repayment, utility bill payment, hotel and air ticket reservations, lottery ticket purchases, etc. CUP acceptance points have been established in nearly 4,000 convenience stores, supermarkets, etc. to provide the customer with convenient financial service.

The Market

Acceptance in the global marketplace has allowed CUP to open the door to a large consumer base where it can gain loyalty and increase revenue. According to the China UnionPay Web site, "CUP cards are accepted by more than 30 countries/markets for POS/ATM and more than 50 countries/markets for ATM cardholders."²

Usage

As UnionPay gains wider infrastructure acceptance, the world is watching consumer response. China UnionPay network ranks along with MasterCard and Visa in total volume and total cards issued.

In 2009, the national inter-bank bankcard transactions hit RMB 7.7 trillion, 83.7 times that in 2001 (prior to CUP's establishment). The proportion of bankcard consumption in the total volume of

| THE NILSON REPORT | | | | | | | |
|---|-------------------|--------------|-----------|-----------|---------------|----------------|--------------|
| For 37 years, the leading publication covering payment systems worldwide. | | | | | | | |
| MAY 2008 Issue 903 | | | | | | | |
| Brand | TOTAL VOLUME | | | | CARDS | | |
| | (bil.) | Chg. | '07 Share | '06 Share | Share Chg. | (mil.) | Chg. |
| Visa | \$5,636.26 | 13.9% | 65.15% | 65.18% | -2 basis pts. | 1,964.4 | 14.6% |
| MasterCard | \$2,276.10 | 14.4% | 26.31% | 26.21% | 10 basis pts. | 915.6 | 12.6% |
| American Express | \$647.30 | 13.2% | 7.48% | 7.53% | -5 basis pts. | 86.4 | 10.8% |
| JCB | \$60.94 | 11.7% | 0.70% | 0.72% | -1 basis pt. | 58.1 | 4.9% |
| Diners Club | \$30.11 | 9.1% | 0.35% | 0.36% | -2 basis pts. | 7.2 | 2.4% |
| TOTAL | \$8,650.70 | 14.0% | | | | 3,031.7 | 13.6% |

⁴Comparison to other major card associations:
 CUP Total Volume = RMB 3,243 Billion = US\$473.80 Billion (CUP growth rate 78%) CUP Card Base = 1.8 Billion

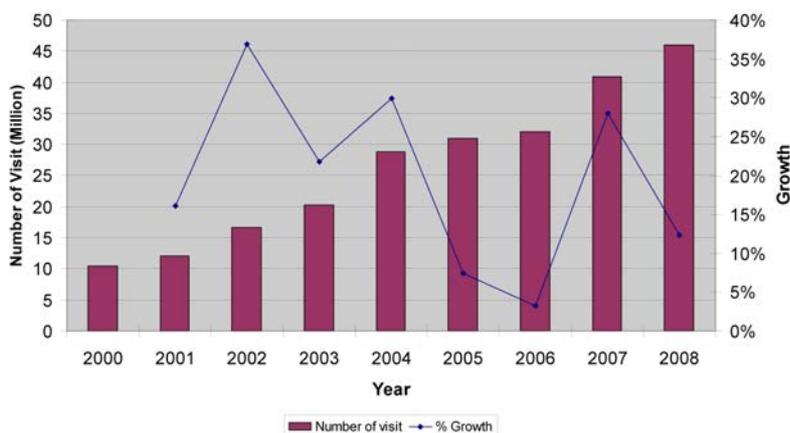
retail sales of social consumables increased from 2.7% in 2001 to 32% at present.

Tourists

CUP payments are particularly attractive to retail segments where there is a large volume of China international tourists. This growth in the global market provides new potential revenue opportunities.⁵

³ China UnionPay website China UnionPay Overview
⁴ The Nilson Report, May 2008, Issue 903
⁵ National Tourism Administration of PROC

Outbound China Tourists



Global Reach

UnionPay cards are accepted at participating locations in numerous countries, some of which are listed below. For a complete list, see the China UnionPay Web site at <http://en.chinaunionpay.com>.

Maldives

CUP service opened in the Maldives in December 2009. All merchants with a CUP logo may accept CUP cards. As of March 2010, the ATMs of Hong Kong and Shanghai Banking Corporation (HSBC) and Bank of Maldives may accept the withdrawal and balance inquiry with CUP cards.⁶

Bank of Maldives,
 a Euronet customer, introduced China UnionPay ATM and POS acquiring support in Maldives, Oceania, in December 2009. This project opened the door for Bank of Maldives to the emerging card scheme with approximately 1.8 billion card base.

Greece, Hungary and Poland

CUP service opened in Greece, Hungary and Poland in May 2006. The CUP card can be used for cash withdrawal and balance inquiry at ATMs with a CUP logo on the machine or on the screen. Some ATMs are installed with both Chinese and English interfaces allowing cardholders to choose which language they prefer.⁵

Egypt

CUP service opened in Egypt in June 2007. The CUP card can be used to withdraw local currency (Egyptian pound) or inquire the balance from ATMs. Partial ATMs have not been pasted with CUP label yet, but can be used with ease. ATMs offer either English or Arabic as the language of choice for cardholders.⁵

Bahrain, India and Sri Lanka

CUP service opened in Bahrain, India and Sri Lanka in May 2006. The CUP card can be used for cash withdrawal and balance inquiry at ATMs with a CUP logo on the machine or on the screen. Some ATMs are installed with both Chinese and English interfaces and cardholders can choose from these two languages.⁵

New Zealand and Australia

CUP service opened in New Zealand and Australia in April 2006. The CUP card can be used for cash withdrawal and balance inquiry at ATMs with a CUP logo on the machine or on the screen. Some ATMs are installed with both Chinese and English interfaces and cardholders can choose from these two languages. Merchants with CUP labels accept CUP cards. Some merchants may not have put up the CUP label, so cardholders should inquire with the cashier as to whether or not CUP cards are accepted.

⁶ China UnionPay website
 China UnionPay Globalization

- Supports CUP Acquirer online authorization processing
- Supports ATM and POS processing
- Supports Dynamic key exchange
- Supports CUP transaction standards
 - Withdrawals
 - Balance inquiries
 - Reversals
 - Pre-authorization of purchases
 - Purchases
 - Refunds
- Supports clearing and settlement of CUP transactions
- Supports Remote Host-to-Host switching of CUP Issuer transactions
- Compliant with China UnionPay network mandatory requirements
- Supports PCI compliance standards

Euronet offers you a solution that blends proven and widely utilized technologies with more than two decades of experience in electronic payments and transaction systems. Also, outsourcing ATM operations and management needs is always an option to allow Euronet EFT experts to handle your transaction processing.



A Look into the Business Opportunities

The high volume of CUP card usage benefits both the issuing and acquiring market. The momentum for issuing China UnionPay CUP cards is growing and has consequently received significant acceptance from the payments industry. According to a recent article in Banking Automation Bulletin, CUP aims to issue one million chip cards via its member banks over the next year, 10 million over the following three years, and 20 million in the subsequent two years.

Because the high volume of China international travelers is expected to continue to rise, the retail sector is experiencing increased revenue opportunities due to the massive numbers of this new type of card. Experts claim that many businesses derive 20 percent or more of their sales from purchases made with foreign-issued credit cards. Therefore, a China UnionPay interface can have a significant impact as a value-added product offering.

Factors Driving the Issuer Business Case

- Provides competitive differentiation
- Offers card issuance for a new growing market
- Provides new potential revenue opportunities
- Increases revenue from retail interchange
- Improves active card usage

Factors Driving the Acquirer Business Case

- Establishes competitive edge in consumer choice
- Offers card acceptance for a new emerging global market
- Increases revenue by driving CUP card usage
- Offers competitive interchange rates and fees
- Low operating cost (no other cost payable to CUP)
- Attracts international travellers

Connecting to the World through Euronet's Electronic Financial Transaction Interfaces

Euronet provides the most comprehensive integrated financial transaction solutions for electronic financial transaction (EFT) interfaces. We offer dependable links to the top card associations in the global market. Euronet has more than 20 years of experience interfacing to more than 100 different networks and gateways. Euronet is experienced with International Card Organizations as well as local, regional and proprietary networks. Euronet EFT network interfaces are built on Euronet's Integrated Transaction Management® (ITM) architecture as part of its Payments Hub strategy. With this end-to-end solution, Euronet provides an advanced infrastructure for connectivity and transaction processing.

*7 Payment Cards in China:
Ambitious plans for chip cards in China; Banking Automation Bulletin; Issue 273; February 2010*



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