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Present and Future of Internet Banking in China

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Abstract

This paper has several objectives. First, it illustrates the history and explosive growth of Internet banking services in China. In general, the development of Internet banking services is still in its nascent stages in China, with a considerable quantity of potential customers. Second, we discuss the characteristics of Internet banking in China. We have determined that Chinese Internet banking transactions tend to be comparatively business-related, and that current Internet banking users skew young, highly-educated, and wealthy. Additionally, there is a regional difference in adopting Internet banking. Third, this study discusses the potential market for Internet banking services in China, and three factors that may influence the development of Chinese Internet banking. Finally, we propose two marketing suggestions regarding the expansion of the Chinese Internet banking market.

Keywords: Internet banking; perceived risk; awareness; previous experience

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INTRODUCTION

With current rapid developments in information and network technology, banks are undergoing unprecedented and global changes. The traditional banking business has been significantly, and inevitably, impacted by the rapid technological development of non-bank high-tech industries. After becoming a member of the WTO in November 2001, Chinese banks have had to face challenges from foreign banks, which hold advantages in their advanced technology, stronger funds, and modern management modalities. If Chinese banks wish to enhance their competitive advantage in the financial industry, they will have to build their information technology, and in particular, their network technology.

Today, the Internet has infiltrated every aspect of life, as exemplified by online entertainment, online shopping, and Internet banking, and these new technologies have affected and encroached on people's lives in many ways. The rapid development of Internet banking may make life easier in some ways; however, it must be remembered that there is another side to the issue--it also changes lives and habits in unpredictable ways.

This paper describes and discusses the history and explosive growth of Internet banking services in China, and explains the salient characteristics of Chinese Internet banking. Additionally, this paper introduces the potential market for Internet banking services and three factors that may influence its development. Finally, this paper proposes two marketing suggestions regarding the expansion of the Chinese Internet banking market.

EXPLOSIVE GROWTH IN INTERNET BANKING SERVICE

In 1996, the Bank of China extended its business to the Internet. China Merchants Bank was the first to launch an Internet payment system in 1997, after which Internet banking and telephone banking systems spread rapidly throughout the entire country (Li, 2002). However, proficiency with Internet usage remains generally low and Internet banking remains in its infancy in China (AC Nielsen Consult, 2002). Chinese domestic banks, though, continue to be confident that the benefits of online banking will eventually result in a shift away from traditional banking services. They reason that, first, as compared to traditional banking services, Internet banking entails significantly reduced operating costs, improved service quality, and business expansion possibilities. Online operation costs only 1% that of manual transactions. Second, online operations allow for substantial expansions of service. Customers can connect with Internet banking systems anytime to check their email, conduct account inquiries, loan applications and file updates, all of which entail 24-hour real-time online communication. Thus, the traditional time and space constraints of banking are eliminated. Third, for the benefits of globalization, Internet banking as an open system services every corner of the world. Therefore, Chinese domestic banks are understandably eager to implement these new technologies and new services in order to seize and penetrate the market, and gain competitive advantage.

Currently, the four major state-owned banks (Bank of China, China Construction Bank, China Industrial and Commercial Bank of China and Agricultural Bank of China) have begun an Internet banking service, and then the majority of other domestic commercial banks launched online banking services as service-added to existing branch activities. They established a home page to actively enhance the customers' Internet banking experience. The banking network system, when established, was already relatively complete. As a result, industry classification and market positioning operations were more streamlined and more mature. Commercial banks in China are now paying attention and expending efforts on the banking network, funds, technology, and human resources in order to improve their services. Table 1 shows the launching time for Internet banking services among the major commercial banks.

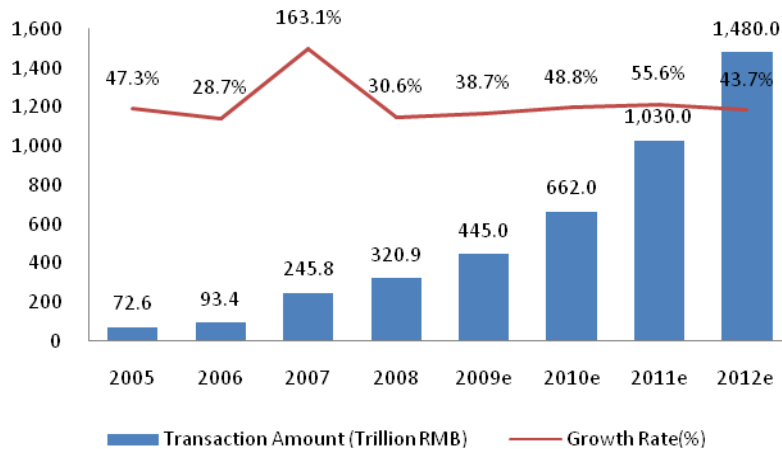
Table 1. Launching time of IB of some major commercial banks in China

Bank Name	Launching time of Internet banking	Website
Bank of China	June, 1999	www.boc.cn
China Merchants Bank	April, 1997	www.cmbchina.com
China Construction Bank	August, 1999	www.ccb.com
China EverBright Bank	December, 1999	www.cebbank.com
Industrial and Commercial Bank of China	February, 2000	www.icbc.com.cn
HuaXia Bank	October, 2000	www.abchina.cn
Shenzhen Development Bank	November, 2000	www.sdb.com.cn
Guangdong Development Bank	December, 2000	www.ebank.gdb.com.cn
Fujian Industrial Bank	December, 2000	www.cib.com.cn
China Minsheng Bank	June, 2001	www.cmbc.com.cn
Shanghai Pudong Development Bank	June, 2001	www.spdb.com.cn
Agricultural Bank of China	April, 2002	www.abchina.com
Bank of Communications	November, 2002	www.bankcomm.com

Source: Wu, (2008)

By the end of 2002, 3.5 million customers had opened Internet banking accounts with the major commercial banks in China, with a transaction amount exceeding 5 trillion RMB. By December of 2004, the number of Internet bank user exceeded 10 million, and some banks' reported transaction volumes of up to 20 trillion RMB. In 2006, Internet banking businesses reported the highest share of total banking, with 57.6%, followed by phone banking and self-service banking (e.g. ATM). Internet banking developed rapidly in 2007, with a transaction volume of 245.8 trillion RMB, corresponding to 163.1% growth relative to 2006. The online business of major commercial banks exceeded 20% of total business, and the number of personal clients reached 148 million (iResearch, 2006).

"Cost savings" is the catchphrase of financial management of Chinese bank in 2009. Thus, many banks have decided to spend time and money developing their Internet banking services. Some banks are introducing new Internet banking functions and conducting promotional activities to attract more customers. It is expected that from now until 2010, the Internet banking industry will develop into greater maturity, and the attendant laws and regulations will be gradually improved; as a result, the business of major banks is expected to develop stably. As is shown in Figure 1, beginning in 2009 the rate of increase in transaction volume should remain stable.



Source: China Online Banking Research Report 2008-2009 (iResearch, 2007)

Figure 1. Transaction amounts of Chinese Internet Banking from 2005-2012

THE CHARACTERISTICS OF INTERNET BANKING IN CHINA

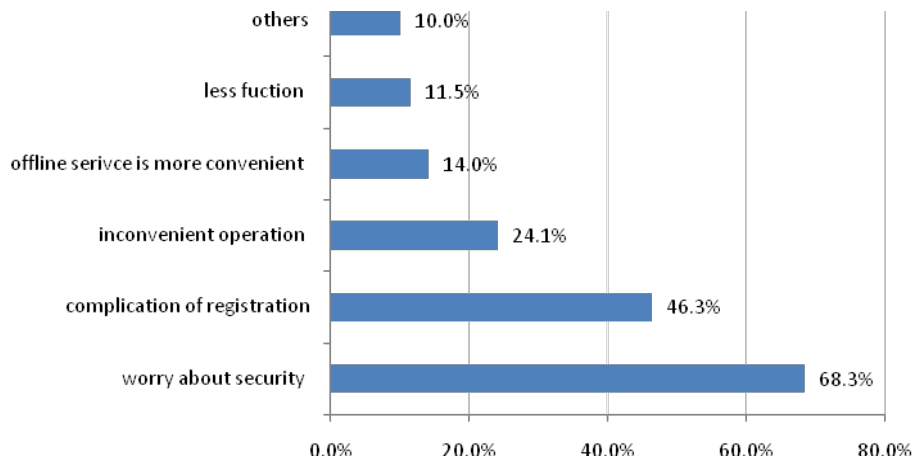
Internet banking in China emerged later than in other developed countries, with a dynamic and rapidly growing market. Here, we introduce some of the specific characteristics of Chinese Internet banking.

Internet banking transactions are more business-related

Business transactions among organizational customers via Internet banking achieved a volume of 230 trillion RMB in 2007, whereas private transactions with individual

customers reached a relatively lower 15.8 trillion RMB. As the national culture of Chinese customers involves strong uncertainty avoidance, Chinese customers tend to experience difficulty in adopting new technology-based financial systems.

Zhao *et al.* (2008) studied the perceived risks of Internet banking service adoption among Chinese customers. They found 4 factors of perceived risk of Chinese customers: first, the risk of losing personal control of bank accounts, money, or individual information; second, the risk of losing face, which entails several unfavorable psychosocial outcomes, such as the usage decision being deemed socially unacceptable; third, the risk of system failure, in that people worry about the vulnerability of Internet banking systems to attack and technical problems; fourth, the risk of displaying problems to others, such as frustration or appearing foolish to another. [Figure 2] shows the proportion of each perceived risk, and demonstrates that the security problem is the most salient factor in resistance to enrolling in Internet banking services. This result can help bank managers to understand Chinese customer behavior, and thus help in the building of strategies to increase the number of personal customers. AC Nielsen Consulting (2002) found that the drivers of growth in Internet banking were a combination of convenience provided to those with easy Internet access, the availability of secure, high standard online banking functionality, cost savings, and the necessity of banking services (Laforet & Li, 2005).



Source: China Online Banking Research Report 2007-2008 (iResearch, 2006)

Figure 2. Why do not netizens like Internet banking?

In addition, some other scholars have pointed out that attitudes toward Internet banking are changing radically in China (Sandland, 2000). Li (2002) also asserted that Chinese customers were undergoing tremendous changes in their attitudes toward the service. The more frequently net surfers lead, the less against online banking services they tend to be. Karjaluoto *et al.* (2002) showed that previous experience with computers and technologies and attitudes toward computers influence attitudes toward Internet banking, and also actual behaviors.

Table 2. Network Finance Users 2007-2008

	End of 2007		End of 2008		Change	
	Use rate	Size of netizens (ten thousand)	Use rate	Size of netizens (ten thousand)	Volume of increase (ten thousand)	Increase rate
Online banking	19.2%	4,000	19.3%	5,800	1,800	45.0%
Online stock speculation	18.2%	3,800	11.4%	3,400	-400	-10.5%

Source: Statistical Survey Report on the Internet Development in China (2009)

There is also another reason that the low rate of private Internet banking usage can be related with the low rate of adoption of e-commerce (Laforet & Li, 2005). By the end of 2008, the total number of netizens in China had increased to 298 million; however, most netizens use the Internet as a tool for entertainment (online music, game, and video), information searching, and network communication (instant message, email). The rate of e-commerce use in this population was less than 20%. Using online shopping as an example, the rate of online shopping usage was 24.8% by 2008, which is far lower than in South Korea (60%) and the United States (71%) (CNNIC, 2009). Owing to the low rate of credit card possession in China, online transfers and cash on delivery are the two principal payment methods used for online shopping--however, a considerable number of consumers use cash on delivery as opposed to online transfer. As compared to 2007, the rate of online banking usage has increased by just 0.1% (Table 2).

Internet banking users are young, highly educated and wealthy

Internet users are dominated by the educated younger generation. Howcroft *et al.* (2002) demonstrated that younger consumers value the convenience or time-saving potential of online services more than older consumers, and they care less about the importance of face-to-face contact--however, their study did not conclude that educational levels would affect online banking usage. Karjaluoto *et al.* (2002) found that Internet banking users in the Finnish market are generally highly educated, relatively young, and wealthy, with good computer knowledge. These results appear to show that demographic factors significantly affect online banking behavior (Laforet & Li, 2005).

Table 3. The characteristics of Internet banking users in 2007

Characteristics	Rate of IB users	Rate of Netizens
Education: More than college	73%	68%
Income: more than 2000RMB per month	37%	31%
Age: 19-30	61%	58%

Source: iUsertracker 2007.3 www.iresearch.com.cn

Chinese netizens are relatively young and relatively highly educated. Almost 70% of netizens are highly educated or younger. The principal purpose for which this segment of the population uses the Internet is entertainment, such as music downloads or online games. According to the report of iResearch, as compared to the total population of netizens, Internet banking users are young people with relatively high educational attainment and income (Table 3). In other words, netizens who are highly educated are

the most viable potential consumers of Internet banking in the future.

The regional difference of adopting Internet banking

There are obvious regional differences in the development of Internet banking in China. Compared to developed areas such as Beijing, Shanghai, and Guangzhou, the development of Internet banking in the western regions is relatively inadequate. This is related to low economic development, low consumption levels, and a lack of capable individuals (Zhang & Li, 2005).

The characteristics inherent to the development of Internet banking in the western regions are as follows:

- Less websites and simple designs
- Lack of local specific service
- Outdated management modalities
- Insufficient marketing activities
- Lack of funds
- Shallow sense of risk prevention

This interregional disequilibrium influences the efficiency of Internet banking business of the entire country. China should pay more attention to the development of Internet banking in the western regions in order to promote balanced and steady development of Internet banking business throughout the country.

THE POTENTIAL OF INTERNET BANKING IN CHINA

China's personal computer sales are currently growing at a rate of 60% yearly, and developments in information technology, including Internet access, are continuous. 25% of households are expected to own a computer by 2010, and this growth will continue if Chinese Internet infrastructure continues to follow the global trend (Trappey & Trappey, 2001). The population of emergent Internet bankers is also growing rapidly, and if the Internet banking systems of China are implemented adequately, they should be very successful, considering the vast Chinese population. China, in fact, has huge potential for the growth of a world-scale Internet economy (Laforet & Li, 2005). The factors that may influence the development of Internet banking in China are discussed in the following section.

Perceived risk

Perceived risk is the most crucial factor affecting the decisions of Chinese customers to adopt Internet banking. Chinese customers attach much more importance to security than to convenience or time-saving (Laforet & Li, 2005). Trappey and Trappey (2001) showed that Chinese consumers tend to have little confidence in e-commerce and Internet technology, particularly in the area of personal financial management. Additionally, the old tradition of carrying hard currency affects the drive for innovation in personal financial management. Technology can weaken consumers' confidence, and Internet banking is too untested for many Chinese customers. They tend to be

concerned about losing their invisible and intangible private data. Littler and Melanthiou (2006) have proposed that customers are also uncertain regarding technology problems such as hackers, as well as unauthorized access to their accounts. Thus, in order to improve the rate of adoption of online banking, the security issue must first be addressed (Laforet & Li, 2005; Zhao et al., 2008).

Awareness

Laforet and Li (2005) found a significant difference between users and non-users of online banking in terms of their level of awareness of the services available in China. Two-thirds of their sample of non-users were not aware that Internet banking services were available, and the others had heard about it but did not use it because they were unclear about its benefits. Agarwal and Prasad (1998) verified the significant effects of awareness on new technology adoption. Zhao *et al.* (2008) mentioned that Chinese customers are not generally aware of the “after-sale” policies established for cases in which Internet banking service goes wrong. Obviously, in the initial stage of Internet banking service adoption, increasing awareness is important to increase the rate of Internet banking usage. Customers must be made fully aware of the features, benefits, and operation of Internet banking, and this would help them develop confidence in using the new services.

Previous experience with computer and technology

With regard to demographic characteristics, Karjaluoto *et al.* (2002) found that online banking users in the Finnish market were highly educated, relatively young, and wealthy, and generally had good computer knowledge. Laforet and Li (2005) did not find that educational attainment influenced online banking adoption in China, which may be attributable to the low total proportion of highly educated Chinese citizens. However, their results show that typical users of Internet banking are as much as 44 years old, and have previous experience with computers and new technology. When consumers gain knowledge, they gain confidence and with gradual increases in computer usage, they tend to be more accepting of changes in the use of new technology (Thornton & White, 2001).

CONCLUSION AND SUGGESTIONS

The entry barriers to Internet banking are very low in China, and there are very few differences in the financial services offered. Therefore, banks should attach increased importance to marketing activities for the creation of brand barriers. A pure Internet banking strategy requires radical changes for many banks. They are required to foster new competencies to earn greater market share (Mols, Bukh, & Nielsen, 1999). However, the Internet is the cheapest distribution channel available. As a consequence, it is difficult for a bank to distinguish its offerings with a low cost strategy (Birch & Young, 1997). Actually, it is quite difficult to acquire Internet customers in general, owing to the fabulous inherent promotional expenses required. Moreover, Internet financial services in China go through a phase of convergence—in this phase, banks should be able to promote a differentiation strategy in order to acquire a competitive advantage.

Marketing promotion

As previously mentioned, since non-users of Internet banking are not generally aware of the services available or their benefits, increasing awareness is crucial to increase the rate of Internet banking usage. Banks should take advantage of marketing promotions to build their own brand image. Marketing promotions entail not just advertising, but rather an overarching strategy. A successful marketing promotion should construct a very positive image of a company, which the customer retains. Such an image may involve color choices, font choices, or character choices; one example would be the Nike company's "Just do it" promotion--a very successful sports brand using a very simple label and color scheme. The "Go with Visa" promotion connects people's image of the Visa card with travel. China Merchants Bank (CMB) created their "一卡通" (all in one) brand, in order to express an integration of offline and online services. This technology brand image has brought immeasurable commercial value to CMB, not only gaining trust and positive feelings from the customer, but also enhancing customer loyalty.

Differentiation

A considerable gap in the individual Internet banking market remains. The majority of banks provide just a few limited services, such as account inquiries and transfers. Customers are unable to fully appreciate or experience the convenience of online banking services and their benefits. Therefore, banks should provide various and specific services to meet their customers' expectations. Industrial and Commercial Bank of China (ICBC), the largest Internet banking service provider, provides a wide range of services to individual customers, including account management, financial management, foreign exchange, financial securities, insurance, payment, and loan services--thus basically meeting almost all of the needs of their customers. ICBC also attempts to provide customers with "one-stop" service, in order to prevent customer churn due to unmet requirements.

China can also learn from the successes of other countries, such as Korea. 95% of Koreans use Internet banking services, because it costs only 10-15% that of traditional counter service (Zhang, Piao, & Zhao, 2008). Korean banks also encourage customers to use "cyber account" as opposed to traditional paper account. As a reward, banks provide 5-10% discount on transaction fee to customer with cyber account, which benefits customers, reduces costs, and improves efficiency.

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