

On the Risk Control of Electronic Banking

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Abstract: The traditional commercial bank was given new trade channels, business field and development opportunities because of Electronic banking business, but electronic banking business still face much risk. The challenges and subject of electronic banking is to research and the effective control and dealing with the risk of business. In this paper, the necessity of legal risk control the electronic banking is firstly analyzed, three steps and methods about the risk management and control in the electronic banking(the market access control of the market, the risk management system and the measures of risk control) is the emphasis, ensure the effective identification, assessment and monitor for the safety of the electronic banking by clear risk management framework, perfect regulations and strict risk control measures.

Keywords: electronic banking; risk control; banking

1 Introduction

The development of e-commerce requires the integration of the electronic payment of the bank and e-commerce. E-banking came into being. Electronic bank can also be called virtual bank, according to the international agency authority Electronic Banking Group, Electronic Banking business is defined as the bank that provide the customer with e-banking service through through Internet by electronic tools, its business includes enterprise online banking, personal internet banking, online payment, online mall, online query and Internet securities, etc. Compared with the traditional bank, electronic banking face greater risks, these risks include not only the traditional financial risk, such as credit crisis of electronic currency in the bank, the property loss or overdraw of consumer, the risk of information technology based on the application of information technology such as the system failure, external attack or fraud, and the legal risks, policy risk and moral hazard brought by the changes of business mode. Electronic banking business risks and potential safety problems will inevitably have negative influence on the development of banking.

Although there are many risks, electronic banking as a new distribution of commercial banking, has become an important part of the commercial Banks. how to correctly understand t business risk of he electronic banking and take effective measures to control it has become the key in the sustainable development of the electronic banking. The risk management and control is studied in the paper, three main steps and methods are represented namely: the market access control, risk management system and risk control measures, aim to ensure the safety of electronic banking business y effective identification, detect with clear risk management framework, perfect regulations and strict risk control measures.

2 Access to Electronic Banking Market Must be Strict

Electronic banking can reduce pressure, reduce the operation cost, it is a good window and means for the bank to show image and competitive ability. Access to the market is the first step of electronic banking business management and risk control. The setting conditions and procedures of electronic bank and follow ing the rules of market access to reduce the operating risk caused by faulty design, data integrity, and credit and liquidity risk are provided in The financial permit management regulations (May, 2003), Decision on management methods and procedures of regulating the market admittance (May, 2003), the management method of electronic banking (Feb, 2005) issued by banking regulatory commission of China.

2.1 Follow the Rules of Electronic Banking Application

According to No.9 guideline in the financial license management regulations, the introducing electronic banking business of financial institutions shall meet the following requirements: 1) the normal business activities of financial institutions, mature risk management system and internal control system, no major incidents in business and information management system of the financial institutions one year before the application of electronic banking business 2) make the overall development strategy development plan and security strategy of the electronic banking business, establish the organization system and institution system of the risk management in the electronic banking business 3) establish the infrastructure and system of electronic banking business operation according to the electronic banking business development plan and security strategy 4) the safety assessment on the electronic banking business risk management and busi-

ness facilities and system; 5) establish a clear electronic banking business management department, equipped with qualified management personnel and technical personnel, 6) other conditions required by the bank regulatory commission of China.

According to No.10 guideline, financial institutions introduce the online banking, mobile phones and other electronic banking business that the Internet served as a medium of mobile phones and other electronic banking business, still should meet the following requirements: electronic banking infrastructure equipment can guarantee the normal operation of the electronic banking, Electronic banking systems have the necessary skills to satisfy the customer's timely need, establish an effective mechanism of external attack detection, electronic banking business operation system and business processing server of Chinese-invested financial institutions must establish in the People's Republic of China, Foreign-funded financial institutions of electronic banking business operation system and business processing server can be installed in the People's Republic of China or abroad. If the financial institution is established overseas, business transaction data facilities can record and preserve the data, satisfy the requirements of financial regulators on-the-spot inspection, satisfy the Chinese judicial organization investigation of evidence.

According to No.11 No.9 No.10 guideline, foreign-funded financial institutions introduce e-banking to establish the business institution, its country (region) regulators have electronic banking business for supervision and regulation of the legal framework in accordance with the laws, administrative regulations and the relevant provisions of the People's Republic of China on commercial agency.

2.2 Strict Approval of Electronic Banking Business

About the introducing electronic banking of financial institutions, CBRC has the A-level principle, according to the different types of electronic banking business, electronic banking is applied for examination and approval system or reporting system. Among them, electronic banking business using the Internet network or wireless network, includes online banking, mobile phone banking is applied for examination and approval system, electronic banking using the territory or regional telecommunications network is applied for reporting system. electronic banking that using specific self-service facilities, regulations and administrative rules and regulations in accordance with its provisions otherwise, others are applied for reporting system.

Before the financial institutions apply for the electronic banking that need examining and approving, they should communicate the banking with the China banking

regulatory commission, make clear electronic banking system and the infrastructure design, the construction project and the basic operation mode, adjust the relevant program according to the communication results. when financial institutions open electronic banking business, they can apply for different types of electronic banking business in a report, but should indicate business type of electronic banking. After financial institutions introduce electronic banking, they should provide service by establishing direct network connection with certain customers, it belongs to the electronic banking service, not the type of electronic banking business applied.

In addition, financial institutions can add or change electronic banking business type, they can be applied for examination and approval system or reporting system. According to the No 22 guideline, financial institutions increase or change the following type of electronic banking business is applied for examination and approval system: need relevant laws, regulations and administrative rules and regulations approval but the financial institutions has not approved, and prepare to open electronic banking; the approved business financial institutions apply to electronic banking, they need the implementation of real-time data exchange with securities and insurance industries, financial institutions joint through Internet platform and provide cross-border electronic banking services. Other electronic banking are applied for reporting system. the financial institutions need no application when increasing or altering, but they should will submit relevant materials to China banking regulatory commission or its branches in a month before they start this business types.

2.3 Follow the Termination Rules of Electronic Banking

The financial institutions that have the electronic banking that decide to cancel all electronic banking services or part types of electronic banking services should report the termination reason and the disposal scheme to China banking regulatory commission (CBRC), and make a public announcement. Financial institutions that close part types of electronic banking in accordance with the plan should report to the China banking regulatory commission (CBRC) one month before and should make a public announcement.

Financial institutions that terminates electronic banking services or suspense part types of business must take effective measures to protect the lawful rights and interests of customers and make up effective disposal scheme in the light of the problems that may occur. In addition, after financial institutions terminates electronic banking services or suspense part style of business, they need open electronic banking or part style of business suspended again ,they should apply or handle again. according to

relevant provisions .

3 Improve the Risk Management System of Electronic Banking

Electronic bank extends scope and extension of the traditional banking, open network financial services expose new security problems of the bank. Prudence principle and measures of risk management according to traditional business still applies to electronic banking business, the former risk management system must have the proper necessary supplement according to the change of environment and operation mode.

3.1 The System of Encrypting Client Identity

Encryption client identity system guarantee authenticity, legality and effectiveness of the customer information to prevent theft account, identity risk. When the bank conduct the electronic banking, they should agree with the customer proper authentication, such as passwords, key, digital certificate, electronic signature according to the customer property, electronic payment types, the amount paid. Among them, authentication technology shall comply with the relevant state regulations, and according to the safety of the electronic banking business and technological development of the information technology, check and assess encryption and algorithm and make timely adjustment. The main legislation in China is: the electronic payment guidelines No 34, banks that use digital certificate and electronic signature to identity authentication and authorization by the trade, the third-party authentication institutions providing legal services for clients authentication is advocated. If the customer take a loss because of the certification service, and certification service agencies cannot prove that he has no fault, they should bear corresponding responsibility according to law. The electronic banking business management regulations No40: the financial institutions should take appropriate measures and use appropriate technology to identify and verify electronic banking service customer's real and valid identity, make an effective management in accordance with the relevant agreements signed with the customer for customer operations. No 38: the financial institutions should adopt the proper technology and measure to ensure the safety of data transmission and confidentiality and integrity of data transmission, authenticity and nonrepudiation.

3.2 Information Disclosure System of the Bank

The information disclosure system urged the bank to keep customer protection and privacy laws and regulations, it can help to restrict bank legal risks and reputation risks. According to the electronic payment guidelines No 8: the bank that open payment business shall be

publicly disclosed the following information, name, address and contact way of the bank, electronic payment business condition, the varieties of the electronic payment business, operating procedures and charging standards may exist all varieties of risks, it includes operation risk, the safety measures not taken, varieties of risk that customer security vulnerabilities using electronic payment transactions may produce, remind customers to keep and use electronic payment transaction access tool (such as card, password, key data made by electronic signature, etc.) They want the to customers to know by the disclosure of information how to use the new products and services, the fees for products and services, and how to solve the problem and mistakes.

3.3 Service Agreement

Bank and the customer have the law relationship of financial service, the electronic payment service agreement between the bank and its customer can improve safety consciousness of the customer, prevent the comprehensive business risk. of electronic banking. According to electronic payment guideline No. 9, the bank shall review the basic information of the customer carefully who apply for electronic payment, sign an agreement with the customer in writing or electronically. The content of service includes: the account name and account, pay ability of the customer, the appointed trading rules and authentication type, the confidentiality duty of application of the materials and other information, the time and way that customer provide transaction records, dispute mistakes processing and liability for damages, etc.

4 Taking the Measure of Risk Management of the Electronic Banking

In practice, disaster backup management, system analysis, the monitoring automation degree of fault diagnosis of electronic banking usually lag the development of e-government finance emergency and risk ability. According to the characteristics of the electronic banking business operations and electronic banking business and technical development present situation, the perfect electronic banking risk management system, the implementation of the electronic banking safe and feasible steady operation of risk management measures of risk control is the necessary step and the means.

4.1 Electronic Equipment Safety Measures

Electronic equipment safety is the unity of applied and the internal control system, its function is to ensure the integrity, authenticity and confidentiality of the data and the operation process. The electronic equipment safety measures can limit the attack risk of the electronic banking, also limit safety reputation risks violations .

The measures include: firstly, to test equipment and

system, in order to know its function is normal, and produce the desired results. electronic banking system equipment regular check can develop new pilot test or application system and reduce the risk due to the system function and slow or interrupt. Secondly, with important facilities and taking appropriate measures to protect the data security operations, facilities and safety control facilities can improve the security of electronic banking risk management and operation. Thirdly, the physical security control of tangible place comply with the relevant state laws and regulations and requirements for the safety standard, no unified standard of safety and security control places of tangible electronic bank shall ensure that the formulation of the safety system covering the main possible risk, the banking system taking open network ad media should rationally set up and use a firewall, anti-virus software, etc, to ensure safety products and technology of electronic banking sufficient counter attack power, anti-virus protection ability and ability, the responsibility and authority, and the operation process of the contact, inspection, repairment and emergency treatment of important facilities, should be clearly defined, and make the file management to truthfully record and keep relevant record. According to the important technical parameters, the bank should strictly control and establish corresponding contact with the technical parameters adjustment and alteration mechanism system to guarantee the replacement of key personnel and prevent the relevant technical parameters of leakage, The key position and key personnel of the electronic banking should implement total and mandatory holiday system to establish the strict internal supervision management system.

4.2 Emergency Treatment Measures

According to the possible risk due to internal procedures, service, product transfer caused by abnormal condition, the bank should ensure that emergency measures to avoid big system risk by the data recovery, timely replacement of data processing, emergency staff, customer service and support of banking systems.

Utilizing electronic banking business risk management principle issued by the Basel committee of banking supervision, final rules of electronic banking issued by the us currency supervision department, European Banks standards committee "electronic bank report, and the Hong Kong monetary authority of the electronic banking service of security risk management of international financial institutions and overseas bank risk control rules in China in recent years, we can summarize the experience and problems of the electronic banking development and management, business announcement and accident report can be used in emergency treatment measures. Firstly, the report of the business changes. According to the electronic banking business management regu-

lations of article 30," financial institutions regulations planned to suspend electronic banking services for electronic banking system upgrade and debugging, shall make a public announcement on its web site to minimize the impact of at least 3 days. Financial institutions that suspend electronic banking service because of accidental factors shall report the fundamental causes influence, and remedial measures and processing conditions of the accident to China banking regulatory commission (CBRC) in 24 hours. Secondly, the major accident report. According to the electronic banking business management method No 80.guide, financial institutions shall establish electronic banking important safety accidents and reports of risk events, and keep the system of regular communication with regulators for electronic banking system. financial institutions triggered and had the losses of customer or bank shall report to China banking regulatory commission (CBRC) within 48 hours.

4.3 Safety Assessment Measures

Safety evaluation refers to in process of developing electronic banking business electronic banking safety strategy, financial institutions should inspect and assess the safety test and control ability on the safety strategy, internal control institution, risk management and the consumer security. The method of internal control and external specialization of the bank regular assessing the safety will improve safety and technology of electronic banking risk management and supervision, control operation and the risk of reputation.

According to the electronic banking business management method No. 77, financial institutions shall have regular self assessment on the electronic banking business development and management, comply annual assessment report of the electronic banking every year. "According to the electronic banking safety assessment No 3guidelines": financial institutions that open electronic banking business should have a comprehensive safety evaluation according to the development and management of the electronic banking at least every 2 years.

Because the technical and safety risks of the electronic banking depends on the advanced degree of information technology, the level of system design and development, related equipment and the choice of suppliers to a certain extent, it is difficult for the bank to identify, monitoring, control and manage related risks by the traditional risk management mechanism. Likewise, it is also hard for regulators to rely on their own strength to evaluation and monitor accurately the safety of electronic banking. According to the electronic banking safety assessment No. 4 guidelines, financial institutions can make use of external professional evaluation institutions for safety assessment of electronic bank, and use the internal independent of electronic banking business operation and management of the electronic banking sector to assess safety evaluation.

To sum up, although our country electronic has brought convenient service experience by its unique advantage of virtual, euroky, it still face external business risk. The banking institutions should make a strict market admittance, perfect the business management, identify and monitor credit risk, market risk, control business risks, operating risks and legal risk effectively. The control of the banking risk will promote the stable and healthy development of China's banking industry .

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