

## **E-BANKING: CHALLENGES & POLICY IMPLICATIONS**

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### **ABSTRACT**

Electronic banking is the wave of the future. It provides enormous benefits to consumers in terms of the ease and cost of transactions. But it also poses new challenges for country authorities in regulating and supervising the financial system and in designing and implementing macroeconomic policy. The present paper aims to highlight the challenges of E-banking. Further efforts have been made to suggest policy implications to make E-Banking more effective.

**KEYWORDS-** Harmonization, Adaptation, Capacity planning, Integration.

### **INTRODUCTION**

Electronic banking has been around for some time in the form of automatic teller machines. A customer transaction costing about \$1 in a traditional "brick and mortar" bank branch or \$0.60 through a phone call costs only about \$0.02 online. Electronic banking also makes it easier for customers to compare banks' services and products, can increase competition among banks, and allows banks to penetrate new markets and thus expand their geographical reach. Some even see electronic banking as an opportunity for countries with underdeveloped financial systems to leapfrog developmental stages. Customers in such countries can access services more easily from banks abroad and through wireless communication systems, which are developing more rapidly than traditional "wired" communication networks.

The Latest communication and computer technology and the availability of the internet have made it possible that one can do most banking transactions from a remote location even without stepping into a physical financial structure – i.e., the emerging of e-banking. E-banking has been viewed as a revolutionary progress in the banking industry. As predicted by Microsoft's Bill Gates – Banks are dinosaurs and will be replaced by microcomputers. Foreseeing the threat and the challenge from the Mr. Gates 'comments, as an industry, the banks are formulating strategic plans to fight back in winning their customers. Their first target is the new technology– including all new telecommunication and computer technology. The industry believes that by adopting new technology, the banks will be able to improve customer service. New issues and challenges facing e-banking in rural areas level and tie their customers closer to the bank. American banks had launched their e-banking services among the few first in the international banking field starting as early as 1992. Through the competition, banks quickly realised that there are a momentous number of customers like e-

banking – to do banking electronically. As a result, many banks, based on their existing 24-hour telephone banking systems, have developed and implemented several important earlier e-banking applications so that their customers are able to pay bills, transfer money among accounts, check account history, download statement information, and computerise their check books online all at easy and around the clock.

### **OBJECTIVES OF THE STUDY**

1. To highlight the challenges of E-Banking.
2. To suggest policy implications to make E-Banking more effective.

### **REVIEW OF LITERATURE**

Facing extremely severe competition from non-banking sector, the banking industry has adopted a more aggressive approach in the development of new e-banking services. For instance, some large banks have started to install advanced software to process all consumer loan applications online, a new paperless e-loan process. And interestingly, the signatures will be created from images collected by special electronic signatures (e-signature), which has been available and legal since 2000. In UK, banks now view e-banking from new distribution channel before to new business models in which e-banking service is considered together with banks' strategic planning, business process, and product/service package offering (Li, 2002; Brown et al., 2004). Empirical studies from the consumer side of e-banking have focussed on the quality of customers on the utilisation of current e-banking services (Hitt and Frei, 2002), and another recent one examining the customer attitudes towards e-banking and concluding that online banking marketing will gain importance at a faster rate in the coming years (Kaynak and Harcar, 2005). Other new e-banking services have targeted mortgage lending, consumer lending, and small business loan products. As an Integral part of the e-business, the e-banking industry has been growing at a rapid pace, to help banks cut costs, increase revenue, and become more convenient for customers (Halperin, 2001). A recent research even investigated the impact of e-banking on building inter-firm relationships within 200 Australian banks and showed that an effective e-banking may enhance inter-firm relationships through improved traditional communications (Rao, 2004). Due to different motivational factors, however, banks, larger and small or located urban or suburban, have placed different priorities and investments in their e-banking efforts. While larger and national banks are currently leading the way in the e-banking forefront, most small and local community banks are reported way behind in this effort – due to the fact that those

smaller community banks were in general lack in both financial and technological resources (O'Connell, 2000). It has been recommended that for smaller community banks, the addition of e-banking services can increase their capacity to offer more banking products and reduce their dependence on core deposits. Those e-banking options also generate a higher proportion of their income from nontraditional activities comparing to banks without e-banking operations (Stamoulis, 2000). Moreover, the e-banking option will in fact as an effective way to reduce the costs of operations for the financial institutions. However, in practice, larger banks located in a centralised urban area tend to have the greatest incentive to adopt e-banking services, while in comparison, smaller community banks tend to have a high initial technological cost in developing e-banking services (Treadwell, 2001). Looking forward, most small banks are motivated to develop e-banking services for potential future cost savings and gaining a competitive edge in the competition (Timmons, 2000).

Presently, it is believed that a combination of a low percentage of customers using e-banking services on a consistent basis and a relatively low start-up cost in developing e-banking services – will make the impact of e-banking (positive or negative) quite limited on the bottom line of most financial institutions (Marenzi et al., 2001). On another hand, e-banking services could be in demand and desirable to accommodate the sudden, rapid growth that has occurred in other information-intensive industries such as travel and securities brokerage. Some new e-banking services have gained a growing popularity such as e-payments and statement aggregation involving e-mail statements, e-mail alerts, online loan decisions, fraud protection, and inter-bank funds transfer capabilities (Stoneman, 2001). The e-banking sector has been growing to reach a competitive level, and has become a serious competitor to traditional banks. With the advantages of quick and easy application process, less technical glitches, more funding options, and low minimum opening deposit requirement, traditional banks have to compete more relying on their conventional face-to-face services, first-name calling friendly environment, and trust and secure feeling of transacting business with a person in a financial institution (Hirst, 2000).

A bank must make in the development of e-banking services. Top of its priority is to address the bank's privacy policy and procedures – which will be scrutinised by the related governmental regulatory bodies. Second on the preference list is about e-banking disclosure policies to fully define the bank's responsibilities and liabilities and also those of its customers regarding the e-banking service. Next decision is related to the design of the package of e-banking services to be offered to its customers. Those e-banking services could be ranging from a standard package, or a more complex service offerings (including bond

purchases, wire transfers, and e-payments), and even a whole package (including tax payments, cash orders, bill payment, direct payment, new account enrolments, and commercial cash management). Finally, the development of e-banking service has encouraged the adoption of a decentralised approach to give banks more needed flexibility to distribute online access to a much larger number of employees and potential customers. (Sathye, 1999; Szymanski and Hise, 2000; Beckett, 2000). Customers do not like to be ignored. Under today's highly competitive market, banks must respond to customers' requests in their e-banking services more promptly and forcefully (Hewson and Coles, 2001; June and Cai, 2001; Black et al., 2001; Karjaluo et al., 2002). While e-banking has been a fast-growing industry among all types of e-business, it has argued that somehow its positive impact was overestimated in some claims and its limit was underestimated more often (Wolfe, 2004). With the statistics of about 80% of all banking transactions are currently still conducted at bank branches, while only 13% are performed through the internet and another 12% via the phone. But the same study predicts that the e-banking services will be very likely to dominate consumer choice in the near future (Wolfe, 2004). Risk in the banking industry has always existed, but providing e-banking services actually has increased or modified some traditional risks associated with banking activities, in particular strategic, operational, legal and reputation risks, thereby influencing the overall risk profile of banking (Duran, 2001). As a result, the Basel Committee established the Basel Guidelines consisting out of 14 principles for banks to manage the risk of e-banking (Rehm, 2003). It has been recognised that to make e-banking a success, it must be not through it being a resource of income, but rather for its money saving ability and a port of interaction with customers (Wade, 2003). One of the essential ingredients for a successful e-banking operation is therefore simplicity and user-friendliness in the financial planning and management process (Hamisah, 2003).

#### CHALLENGES OF E-BANKING

This changing financial landscape brings with it new challenges for bank management and regulatory and supervisory authorities. The major ones stem from increased cross-border transactions resulting from drastically lower transaction costs and the greater ease of banking activities, and from the reliance on technology to provide banking services with the necessary security Banks that provide their services from a remote location through the Internet to be licensed.

1. Regulatory challenge. As the Internet allows services to be provided from anywhere in the world, there is a danger that banks will try to avoid regulation and supervision. What can

regulators do? They can require even banks that provide their services from a remote location through the Internet to be licensed. Licensing would be particularly appropriate where supervision is weak and cooperation between a virtual bank and the home supervisor is not adequate. Licensing is the norm, for example, in the United States and most of the countries of the European Union. A virtual bank licensed outside these jurisdictions that wishes to offer electronic banking services and take deposits in these countries must first establish a licensed branch.

2. Legal challenge. Electronic banking carries sensitive legal risks for banks. Banks can potentially expand the geographical scope of their services faster through electronic banking than through traditional banks. In some cases, however, they might not be fully versed in a jurisdiction's local laws and regulations before they begin to offer services there, either with a license or without a license if one is not required. When a license is not required, a virtual bank—lacking contact with its host country supervisor—may find it even more difficult to stay abreast of regulatory changes. As a consequence, virtual banks could unknowingly violate customer protection laws, including on data collection and privacy, and regulations on soliciting. In doing so, they expose themselves to losses through lawsuits or crimes that are not prosecuted because of jurisdictional disputes.

3. Operational challenge. The reliance on new technology to provide services makes security and system availability the central operational risk of electronic banking. Security threats can come from inside or outside the system, so banking regulators and supervisors must ensure that banks have appropriate practices in place to guarantee the confidentiality of data, as well as the integrity of the system and the data. Banks' security practices should be regularly tested and reviewed by outside experts to analyze network vulnerabilities and recovery preparedness. Capacity planning to address increasing transaction volumes and new technological developments should take account of the budgetary impact of new investments, the ability to attract staff with the necessary expertise, and potential dependence on external service providers. Managing heightened operational risks needs to become an integral part of banks' overall management of risk, and supervisors need to include operational risks in their safety and soundness evaluations.

4. Reputational challenge. Breaches of security and disruptions to the system's availability can damage a bank's reputation. The more a bank relies on electronic delivery channels, the greater the potential for reputational risks. If one electronic bank encounters problems that cause customers to lose confidence in electronic delivery channels as a whole or to view bank failures as systemwide supervisory deficiencies, these problems can potentially affect other

providers of electronic banking services. In many countries where electronic banking is becoming the trend, bank supervisors have put in place internal guidance notes for examiners, and many have released risk-management guidelines for banks.

#### 5. Security challenge.

Internet banks collect and keep some very important personal information from each client. As Internet technology advances, so does the ability of criminals to hack into an Internet bank and steal important client information, according to financial expert Steve Ellis, writing on the Computer World website. Internet banks must constantly update security measures and stay updated on the latest viruses and hacker tools in order to protect client information.

#### 6. Inconvenience challenge.

Internet banking sounds convenient to clients when they first sign up for it, but there are some challenges once the customer begins using his account. Depositing money can be an inconvenience for customers of Internet banks. Physical checks and cash must either be mailed to a designated location, or they need to be deposited into an automatic teller machine which can cost the customer money. In either case, physical deposits can take days, even weeks to clear.

#### 7. Personal Information

Internet banks need to collect personal information in order to do business, but if they do not follow local information collection laws then there could be lawsuits and government penalties. According to the US Computer Emergency Readiness Team's online article "Banking Securely Online," every Internet bank that operates in the United States must comply with Electronic Code of Federal Regulations Part 313.9 that deals with commercial practices. Internet banks must provide a comprehensive explanation of their policies in accordance with this code to every customer. It deals with the collection of information and the consumer's right to opt out of certain parts of it. This can make doing business over the Internet challenging for banks, especially when personal information is needed to process loans and create accounts.

### **POLICY IMPLICATIONS**

The reverse side of this technological boom is that electronic banking is not only susceptible to, but may exacerbate, some of the same risks—particularly governance, legal, operational, and reputational—inherent in traditional banking. In addition, it poses new challenges. In response, many national regulators have already modified their regulations to achieve their main objectives: ensuring the safety and soundness of the domestic banking system,

promoting market discipline, and protecting customer rights and the public trust in the banking system. Policymakers are also becoming increasingly aware of the greater potential impact of macroeconomic policy on capital movements.

**1. Licensing** would be particularly appropriate where supervision is weak and cooperation between a virtual bank and the home supervisor is not adequate. Licensing is the norm, for example, in the United States and most of the countries of the European Union. A virtual bank licensed outside these jurisdictions that wishes to offer electronic banking services and take deposits in these countries must first establish a licensed branch.

**2. Verifying an individual's identity** and address before a customer account is opened and for monitoring online transactions, which requires great vigilance

**3. Security** threats can come from inside or outside the system, so banking regulators and supervisors must ensure that banks have appropriate practices in place to guarantee the confidentiality of data, as well as the integrity of the system and the data. Banks' security practices should be regularly tested and reviewed by outside experts to analyze network vulnerabilities and recovery preparedness.

**4. Capacity planning** to address increasing transaction volumes and new technological developments should take account of the budgetary impact of new investments, the ability to attract staff with the necessary expertise, and potential dependence on external service providers. Managing heightened operational risks needs to become an integral part of banks' overall management of risk, and supervisors need to include operational risks in their safety and soundness evaluations.

**5. Consumer education**—a process in which regulators and supervisors can assist. For example, some bank supervisors provide links on their websites allowing customers to identify online banks with legitimate charters and deposit insurance. They also issue tips on Internet banking, offer consumer help lines, and issue warnings about specific entities that may be conducting unauthorized banking operations in the country.

**6. Adaptation.** In light of how rapidly technology is changing and what the changes mean for banking activities, bank's board of directors and senior management review and approve the key aspects of the security control process, which should include measures to authenticate the identity and authorization of customers, promote nonrepudiation of transactions, protect data integrity, and ensure segregation of duties within e-banking systems, databases, and applications. Regulators and supervisors must also ensure that their staffs have the relevant technological expertise to assess potential changes in risks, which may require significant investment in training and in hardware and software.

**7. Legalization.** New methods for conducting transactions, new instruments, and new service providers will require legal definition, recognition, and permission. For example, it will be essential to define an electronic signature and give it the same legal status as the handwritten signature. Existing legal definitions and permissions—such as the legal definition of a bank and the concept of a national border—will also need to be rethought.

**8. Harmonization.** International harmonization of electronic banking regulation must be a top priority. This means intensifying cross-border cooperation between supervisors and coordinating laws and regulatory practices internationally and domestically across different regulatory agencies. The problem of jurisdiction that arises from "borderless" transactions is, as of this writing, in limbo. For now, each country must decide who has jurisdiction over electronic banking involving its citizens. The task of international harmonization and cooperation can be viewed as the most daunting in addressing the challenges of electronic banking.

**9. Integration.** This is the process of including information technology issues and their accompanying operational risks in bank supervisors' safety and soundness evaluations. In addition to the issues of privacy and security, for example, bank examiners will want to know how well the bank's management has elaborated its business plan for electronic banking. A special challenge for regulators will be supervising the functions that are outsourced to third-party vendors.

## **Conclusion**

While electronic banking can provide a number of benefits for customers and new business opportunities for banks, it exacerbates traditional banking risks. Even though considerable work has been done in some countries in adapting banking and supervision regulations, continuous vigilance and revisions will be essential as the scope of e-banking increases. In particular, there is still a need to establish greater harmonization and coordination at the international level. Moreover, the ease with which capital can potentially be moved between banks and across borders in an electronic environment creates a greater sensitivity to economic policy management. To understand the impact of e-banking on the conduct of economic policy, policymakers need a solid analytical foundation. Without one, the markets will provide the answer, possibly at a high economic cost. Further research on policy-related issues in the period ahead is therefore critical.



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