

***The State of Online Banking:
A Research & Analysis***

**Michael Stanton
University of Scranton
Independent Study: e-Finance
Spring 2005**

During the past 10 years, the evolution of the Internet has changed countless aspects of the lives of its users. One such change has been the way in which we conduct our personal financial activities. Online Banking has been defined as a system allowing individuals to perform banking activities at home, via the Internet. Using online banking, people can manage their personal financial life conveniently in one place that is fully integrated and quickly accessible from anywhere. However, while it is quite clear that online banking systems provide numerous advantages over traditional banks, it is also evident that there are a few “kinks” which need to be worked out. Throughout the course of this essay, some statistics of online banking users will be evaluated, valuable features of online banks will be explored, system flaws which have been discovered will be addressed, and real online banking services will be compared and benchmarked.

According to a recent survey by “Pew Internet & American Life Product, “close to half of all U.S. Internet users are banking online, taking advantage of high-speed connections to conduct transactions with financial institutions in ever-increasing numbers.”¹ This stat translates into 53 million, approximately one quarter of all adults in the U.S., using online banking. The majority of these users, as would be expected, is represented by “generation X”, which includes adults between the ages of 28 and 39. It is the fastest growing online activity, growing exponentially since 2002. “The growth can be attributed to the spread of broadband connections and the maturation of the Internet.”² It is quite clear that people are adapting to the ways of the Internet at a very high rate, utilizing it in order to manage a major facet of their lives, personal finance.

¹ http://crm-daily.newsfactor.com/lylt/story.xhtml?story_title=Online-Banking-on-the-Rise&story_id=30386&category=lylt

² http://crm-daily.newsfactor.com/lylt/story.xhtml?story_title=Online-Banking-on-the-Rise&story_id=30386&category=lylt

A main reason the so many Internet users are adapting an online style of banking can be summed up in one-word: features. Institutions which offer online banking services are increasingly adding more and more features to their systems, giving their customers more convenience and more options. Some examples of these features include: viewing account balances and histories, paying bills online, transferring funds between accounts, viewing current transactions, and even scheduling automatic payments. Some banks have even integrated their online banking systems in such a fashion as to allow their users to manage their investments, such as mutual funds and retirement accounts. Along with this integration by commercial banks, it has been discovered that other financial intermediaries and depository institutions are offering online services to their customers. Credit unions, brokerage houses, mutual savings banks, pension funds, and insurance companies have all entered the age of Internet-driven financial management.

Case Study: Features Offered – RBC Royal Bank

Upon research of the online features offered by commercial banks, RBC Royal Bank (based in Canada) was chosen for an in-depth study. This bank was chosen based upon its variety of features offered, as well as the presentation of its online services.

RBC Royal Bank offers a range of online banking services which include:

24/7 Access to user accounts – Users are given an “activation code” which enables secure access to full functionality of RBC Royal Online Banking. This includes viewing all account histories and accessing any relevant account information.

Electronic Bill Paying – Users have the ability to pay bills electronically to more than 4000 companies.

Money Transfer – Users can send funds to anyone holding an account at another Canadian Financial Institution through RBC’s “Interac Email Money Transfer”.

Automatic Bill Payments – Users can schedule payments of bills to be paid automatically (e.g. every month)

Transfer Funds – Users can transfer funds between all RBC Royal accounts, as well as US Dollar personal accounts.

Mutual Funds – Users can buy and sell non-registered Royal Mutual Funds, as well as view and make contributions to these funds

Loans and Mortgages – Users can research and apply for loans, as well as make loan payments. They can also review details of their existing mortgages.

In offering all of these services to their customers, RBC Royal Bank has created a virtual financial management environment which facilitates all aspects of personal banking.

RBC customers who take advantage of the online banking system are able to manage their personal finances with speed, convenience, and from wherever they might be located when they wish to do so. And according to a study by the Bank of America, “Convenience, time savings and around-the-clock access to account information are the top three reasons why more consumers are turning to online banking.”³

As with all emerging technologies, online banking, relatively in its early stages still, suffers from some flaws. Some of the specific areas in which online banking creates inconvenience or customer dissatisfaction include online bill payment issues, security issues, and online transaction fees.

Users who choose to utilize a bank’s online bill payment service must be aware of all terms and conditions. This means reading the “fine print” when signing up. In the past, when individuals paid all of their bills physically, they knew exactly what was going out in the mail and when it was going out. They also have high confidence in the postal service. This is not the case when users pay their bills over the Internet. For instance, if a user is not completely informed on the logistics of online bill payments, cases may arise where they believe they have sent their bills out on-time, only to be notified and charged a fee later on because their payments were late in arriving. These users must know when their online transactions will take place so that they ensure that their payments are made on time. For example, “First State Bank” offers online bill payments and on their web

³ http://www.consumeraffairs.com/news04/online_banking_survey.html

page, can be found a list of terms and conditions for this service. Upon investigation, it was discovered that the bank promised to reimburse users for late bill payments as a result of their failure to deliver a payment made to a business by the scheduled due date “if the user met the necessary criteria.” In the list of criteria that must be met, it was found that users must schedule payments to be processed at least five business days prior to the due date. Within this stipulation, it went on to mention that additional scheduling requirements applied to mortgage payments. This is just a simple example of the type of issues which online bankers must be aware of. Failure to understand exactly how the system works can result in inconveniences and customer frustration.

A recurring theme among all Internet activity has always been, and will continue to be, security. Online banking is no different, and in fact, security issues must be taken more seriously in this sector because multiple aspects of user’s financial lives must be protected. The digital world of “hackers, phishers, and other fraudsters,” as Laura Bruce refers to them in an article from bankrate.com, makes the Internet seem like a risky place to move your money.”⁴ Since the onset of online banking, there have been many cases involving information hacking and fraud. One such incident occurred when a Miami businessman sued the Bank of America after \$90,000 was allegedly stolen from his online account. This incident raised the question of who is responsible when a customer’s computer is hacked into. The plaintiff in this case felt that the bank was negligent and failed to protect him from online banking risks it knew about. Avivah Litan, an expert on online fraud for Gartner, Inc says “banks technically aren’t responsible for what happens on your PC, but banks can’t reasonable expect consumers

⁴ <http://www.bankrate.com/brm/news/ob/20040505a1.asp>

to protect themselves from cyber criminals.”⁵ Regardless of who receives the blame, this case makes it clear that banks must take every measure possible to ensure that their online banking systems are safe and must devote lots of resources to protect their customers from these attacks. Good security practices that banks must employ include the use of firewalls, encryption, session timeouts, proper authorization requirements, and secure socket layer (SSL) technologies. Banks should also go out of their way to offer customers additional advice on how to maintain high levels of security, such as password protection, and virus protection.

One other unattractive feature of online banking would have to be the additional transaction costs that come with the territory. Customers are often charged extra fees for the use of online banking features, such as online bill-paying. However, when observing this topic from a distance, it can simply be said that the extra fees are simply the price of convenience. So the decision is up to each individual. They must ask themselves: Am I willing to pay extra money for convenience, increased speed, and the ability to manage my financials from any location? So far, it seems that most Internet users are saying “yes”.

Please see the next page for an online bank benchmarking study in which three commercial banks were chosen for study and analysis. A list of relevant criteria have been used to “rate” the online banking service of each institution.

⁵ [http://www.crit.org/articles/14/1/Online-Banking-Victim-Files-Suit%3B-\\$90,000-Lifted-From-Account-Traced-To-Latvia](http://www.crit.org/articles/14/1/Online-Banking-Victim-Files-Suit%3B-$90,000-Lifted-From-Account-Traced-To-Latvia)

BENCHMARKING ONLINE BANKS:

The following banks have been researched and analyzed for quality of service:

- 1) RBC Royal Bank
- 2) PNC Bank
- 3) KeyBank

Each online banking service was critiqued according to the following criteria:

- **Access to funds**
- Looks at the availability of funds to online bankers. Do online bankers have complete 100% access to their funds at all times?
- **Suite of Services Offered**
- Researches the features and services which are available to online bankers. (e.g. Investment services, mortgage services, CD's). The more online services offered, the better.
- **Banking Fees**
- Reviews the fee structure of the bank. High transaction fees? Minimum Account Balances?
- **Bill Pay**
- Looks at the online bill payment system of the online bank. Are there vital terms and conditions? Is there an attempt to make these conditions absolutely clear to each individual banker? Is the system easy to use?
- **Security**
- Reviews the security measures taken by online banks. Do they devote enough resources towards customer protection? Do they employ all available technologies to defend their customers against hackers and phishers?

RESULTS (Scores run from one star (*) to four stars (**))****1) RBC Royal Bank**

Area	Score	Comments
Access to Funds	****	100% Access to all account funds 24/7
Services Offered	****	Mutual Funds, Mortgages, Online Trading & More
Banking Fees	**	Flat Fee Option Available / Limited Information
Bill Pay	***	4000 Companies / Complete Online Bill-Pay Tutorial
Security	****	Latest Security Technologies / User Security Tips

2) PNC Bank

Area	Score	Comments
Access to Funds	****	100% Access to all account funds 24/7
Services Offered	***	Transfer Funds / Manage Loans, Manage Savings, Checking, & PNC Investment Accounts
Banking Fees	****	Online Services Free with PNC Checking Account
Bill Pay	****	Free service / “Payment Thermometer”
Security	****	Latest Security Technologies / User Security Tips

3) KeyBank

Area	Score	Comments
Access to Funds	****	100% Access to all account funds 24/7
Services Offered	****	Manage Budget / Investments / Integrate with Quicken / Microsoft Money / Great GUI
Banking Fees	**	\$5.95 Monthly Fee / Possible Additional Fees
Bill Pay	***	Strict Reimbursement Policy / User Friendly GUI
Security	***	Most Latest Technologies used / User Security Tips

In conducting this research, it was determined that RBC Royal, PNC Bank, and KeyBank all offer good quality online banking services. They each offer full time access to all accounts, and in good practice, have all employed the latest security technologies to protect their customer’s financial information. As for services offered, each bank offers a slightly different variety of services, but in essence they each provide the most attractive ones to online bankers today. Notable was KeyBank’s integration with Quicken and Microsoft Money, which allows users to transfer account information into one of these programs and further analyze/manage their financials. Finding information about transaction fees was difficult for RBC Royal Bank, but they seem to have a reasonable fee structure, as does KeyBank. PNC Bank is most attractive in this area, because they do not charge for online services if the customer has a checking account with PNC. This feature will attract many current PNC members to open online banking accounts. Each

of the banks offer online bill paying systems, as well as informative tutorials to get users started. Although each bank offers a reimbursement policy when bill payment is not conducted properly (late payments), it would definitely behoove any online banker to read all of the “fine print” in order to make sure bills are always paid on time.

(Sources: www.royalbank.com; www.pncbank.com; www.key.com)

***The State of Online Banking:
A Research & Analysis***

**Michael Stanton
University of Scranton
Independent Study: e-Finance
Spring 2005**