A Discussion of

Internet Banking: Developments and Prospects

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Internet Banking: Developments and Prospects, by Furst, Lang, and Nolle provides a benchmark and framework for analysis of Internet banking. The New York State Banking Department reviewed Web sites of banks headquartered in New York in March 2000 and in August - September 2000.

The results of these reviews can be used to extend current information about bank Web sites through comparison with the Furst, Lang, and Nolle findings.
Outline of Discussion

• Comparison of NYSBD findings with Furst, Lang, and Nolle characterization of bank Web sites
• Comparison of product offerings on New York State banks’ Web sites with those on national Internet banks’ sites
• Projections in Furst, Lang, and Nolle vis-à-vis bank Web sites in 2001
NYSBD results agree in main with those in Internet Banking: Developments and Prospects. However, we also considered non-transactional Web sites and looked at savings and commercial banks separately.

- All of the largest national banks offered Internet banking, but only 7% of the smallest banks did so. Internet national banks held 89.2% of the assets in national banks, and 84.1% of the small deposit accounts.

- NYSBD found that 29% of NY headquartered banks had transactional Web sites in 8/00, 35% had non-transactional sites, and 36% had no Web sites. Banks with transactional sites held 89% of the assets in banks headquartered in New York.
• Savings institutions of all sizes were more likely to choose a non-transactional site than no Web site.
• In all size categories, a higher percentage of savings institutions chose a non-transactional site than commercial banks of the same size did.
• 71.9% of small deposit accounts in New York were held by banks with transactional Web sites.
• Among savings banks, 51.8% of small deposit accounts were held by institutions with transactional sites.
• 78.8% of small deposit accounts in commercial banks in New York State were in institutions with transactional Web sites.
Large Banks Likely to Have Transactional Sites

Percent of Banks in Asset size Category with Transactional Site

<table>
<thead>
<tr>
<th>Asset Size Category</th>
<th>OCC (Q3 99)</th>
<th>NYSBD (3/00)</th>
<th>OCC (7/00)</th>
<th>NYSBD (8/00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $100 Million</td>
<td>7%</td>
<td>6%</td>
<td>17%</td>
<td>10%</td>
</tr>
<tr>
<td>$100 Million to &lt; $1 Billion</td>
<td>27%</td>
<td>20%</td>
<td>64%</td>
<td>26%</td>
</tr>
<tr>
<td>$1 Billion to &lt; $10 Billion</td>
<td>62%</td>
<td>43%</td>
<td>74%</td>
<td>53%</td>
</tr>
<tr>
<td>&gt; $10 Billion</td>
<td>100%</td>
<td>71%</td>
<td>96%</td>
<td>85%</td>
</tr>
</tbody>
</table>
Bank Web Sites (Q1 2000 - Q3 2000)

- NY Banks (3/00): 43% No Web Sites, 33% Non-Transactional Web Sites, 23% Transactional Web Sites
- NY Banks (8/00): 36% No Web Sites, 35% Non-Transactional Web Sites, 29% Transactional Web Sites
- All National Banks (7/00): 38% No Web Sites, 30% Non-Transactional Web Sites, 32% Transactional Web Sites
- NE National Banks (7/00): 27% No Web Sites, 39% Non-Transactional Web Sites, 34% Transactional Web Sites
Web Sites of Savings and Commercial Banks

Savings Institutions

<table>
<thead>
<tr>
<th>Category</th>
<th>$ &lt; 100 M</th>
<th>$ 100 M to $ 1 B</th>
<th>$ 1 B to $ 10 B</th>
<th>$ &gt; 10 B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Transactional</td>
<td>9%</td>
<td>15%</td>
<td>57%</td>
<td>67%</td>
</tr>
<tr>
<td>Transactional</td>
<td>50%</td>
<td>50%</td>
<td>29%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Commercial Banks

<table>
<thead>
<tr>
<th>Category</th>
<th>$ &lt; 100 M</th>
<th>$ 100 M to $ 1 B</th>
<th>$ 1 B to $ 10 B</th>
<th>$ &gt; 10 B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Transactional Site</td>
<td>11%</td>
<td>18%</td>
<td>32%</td>
<td>50%</td>
</tr>
<tr>
<td>Transactional Site</td>
<td>18%</td>
<td>38%</td>
<td>18%</td>
<td>90%</td>
</tr>
</tbody>
</table>
Market Share of Small Deposit Accounts

Furst, Lang, and Nolle: Deposit Accounts under $100,000 Held by National Internet Banks, Q3 1999
- Transactional Internet Banks: 84%
- non-Internet Banks: 16%

Deposit Accounts under $100,000 Held in NY Banks in Q2 2000, According to Web Site
- Transactional Web Sites: 72%
- non-Transactional Web Sites: 21%
- No Web Site: 7%

Deposit Accounts under $100,000 Held by NY Savings Banks in Q2 2000, According to Web Site
- Transactional Web Sites: 51%
- non-Transactional Web Sites: 36%
- No Web Site: 13%

Deposit Accounts under $100,000 Held by Commercial Banks in NY in Q2 2000, According to Web Site
- Transactional Web Sites: 79%
- non-Transactional Web Sites: 16%
- No Web Site: 5%
Furst, Lang and Nolle found significant differences between Internet banks and non-Internet banks in Q3 1999: Internet banks showed significantly

- greater *percentage of assets in business and credit card lending* in 2 out of 3 asset size classes
- less *reliance on deposits for funding* and a greater use of purchased funds in 2 out of 3 asset size classes
- greater *proportion of income from nontraditional activities* in all 3 asset size categories
- different *ratio of building expense to net operating revenue* for 2 out of 3 asset size categories:
  - higher *for smallest banks*
  - lower *for mid-sized banks*
Cont.

• *differences in return on equity in all 3 asset size categories*
  – lower *for smallest banks*
  – higher *for mid-sized and large banks*

• *for smallest banks, lower accounting efficiency*

• *differences in credit quality in 2 out of 3 asset size categories*
  – higher *for smallest banks*
  – lower *for large banks*
However, NYSBD research did not find significant differences at even a 10% level between mid-size banks with transactional Web sites and mid-size banks with non-transactional Web sites or mid-sized banks with no Web site when applying a difference of means test for the following financial ratios:

- Deposits / assets
- Noninterest income / net operating revenue
- Accounting efficiency
- C&I loans / gross loans

But, when this test was applied to the differences in these financial ratios for savings and commercial banks, all of the differences were found to be significant at the 1% level.
Furst, Lang, and Nolle reported that the largest Internet banks were more likely than small banks to offer a broad range of services online.

NYSBD found that products offered on NY Bank Web sites varied across types and sizes of institutions:

- **small and mid-size institutions (those with assets less than $1 billion)** were more likely to provide product information and current rates and fees on their Web sites
- **half of commercial bank Web sites advertised investment products**
Cont.

- 25% of savings institutions’ Web sites offered insurance products, but only 12% of commercial banks did so.

- 31% of commercial bank sites and only 9% of savings institutions’ sites offer cash management accounts online.

- 39% of banks with non-transactional sites offer telephone banking, while 71% of the banks with transactional sites have telephone banking.
Many NYS banks are moving from non-transactional sites to transactional sites:

- Between 3/00 and 9/00, 11 New York banks added transactional features to their non-transactional sites
- Between 9/00 and 1/01, 9 more banks upgraded non-transactional sites to transactional ones
- As of 1/01, 3 savings banks with non-transactional sites plan to have transactional sites in Q1 2001
Reports of customer usage of online sites vary:

- only 3% of US households currently manage their bank accounts online (Financial Times 2/20/01)

- According to an OCC news release in 10/00, the majority of national banks with transactional Web sites have less than 10% of their online customers as regular users

- The largest banks report high usage of their sites:
Bank of America reported in 1/01 that it had reached a total of 3 million customers online (more than 20% of its client base) and that it continued to sign up 130,000 online customers a month.

Wells Fargo & Co. claims 2.5 million online customers.

Citigroup reports 2.2 million online customers globally.

First Union Bank has 1.7 million online customers.

J.P. Morgan Chase & Co. said it has more than 750,000 online banking customers.
Developments in 2001

- Bank Web sites as portals
- Account Aggregation