A study of the effect of electronic banking on the melli banks’ liquidity management in Kermanshah

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ABSTRACT

The purpose of this research is to investigate the effect of electronic banking on the liquidity management of melli banks in Kermanshah. In this research we survey the effects of electronic banking tools included automatic taller machines (atm), point of sale (pos), internet banking, phone bank, mobile bank and pinpad as independent variable in liquidity management. In this research descriptive method is used and is correlation kind. The population consists of melli bank branches in Kermanshah. The tool for collecting data is researcher made questionnaire and samples includes 120 persons of employees of melli bank in Kermanshah through which sampling considered non-probability and selective and was done during 92-93. To examine hypotheses regression and correlation and pearson correlation coefficients and spss software are used. Results show that all the variables in liquidity management are effective and recommendation provided by managers and relationship experts should show the advantages of electronic banking tools to people and customers through media and by effective advertisements in order to decrease using of cash in transactions and society can benefit from its positive effects.
1. Introduction

One of the most important phenomenon due to the information revolution is the change (transformation of traditional business practices and its replacement with electronic business. Basically the role of banks and economic institutions in transporting money is very vital.

Electronic banking means using advanced software and hardware technology based on network and telecom for the electronical exchange of financial information and resources which can cause to eliminate the need for physical presence of customers in banks.

Liquidity banking is one of the biggest challenges for banking system. And its main reason is that most of the bank resources are provided from short-term deposits. Moreover banks’ facilities are spent on investements in assets which have fairly low liquidity rate. Bank’s main duty is to create a balance between short-term financial obligations and long-term investments.(Hagibabaee et al, Rostamian, 3:1388).

In this research emphasis is on electronic banking through internete electronic banking significantly reduces customers’ need for demanding cash by improving liquidity management and increases the amount of available funds of banks and eliminates their difficulties in responding to customers’ needs.

2. Electronic banking

For knowing every phenomenon first its’ necessary to provide a specific definition of that phenomenon and related factors and variables. Different definitions are suggested for electronic banking like these ones: providing customers’ access to banking service by using safe interface and without any need to physical presence. Customer usage of internet for timing, testing or changing in bank account or bank investing for banking operations and services. Providing new and traditional banking operations and services to customers through mutual electronic communication channels (Seyedjavadian et al; Saghtchi, 3:1384). Providing banking services through a public computer network which is available (internet or intranet) and has high security (Alahyari, 31:1384). Banks have a great role in saving their administrative and personnel costs by rising focus on electronic banking activites and expanding it globally(Khroyesh et al Alsaesi, 1:2011).

3. Liquidity and liquidity management

Definition: the volume of liquidity consists of banknotes and coins among people and visual deposits as well as long-term deposits and savings(Rahmani, 208: 1387). Liquidity management means the ability of bank for playing financial obligations during the course of time. Liquidity management can be performed in different levels which are:

1 - the first kind of liquidity management is accepted as daily and required liquidity will be predicted as intermittent in future.

2 - the second kind of liquidity management which is based on liquidity management flow predicts the required liquidity for longer six-month to two years intervals.

3 - third kind of liquidity management studies needed liquidity for banks in critical conditions (Ahmadpour, 1:1389). Liquidity management means maintaining suitable and enough amount of cash assets in a way that it can respond to customers’ requests and future obligations and it can prevent from creating the excess liquidity and infliction lost opporunity cost (Samadi, 32:1390). Liquidity management is one of the biggest challenges with which banking system faces. The main reason of this challenge is that most of the bank resources are provided from short-term deposits.

Moreover banks’ facilities are spent on investments in assets which have fairly low liquidity rate. Banks’ main duty is to create a balance between short-term financial obligations and long-term investments. Maintaining inadequate liquidity makes the bank face with risk of lack of ability in doing the obligations and
therefore it deals to bankruptcy. Maintaining high amount of liquidity is one kind of inefficient allocation of resources which decreases bank profitability rates for peoples’ deposits and consequently loses the market. Liquidity management is banks’ short-term ability for responding to new demands for loans and people’s withdrawals. Liquidity problems for a bank not only have great losses for bank’s customers but can spill out rapidly to other credit institutions and causes the collapse of the financial system (souri et al, vesal, 232:1387).

4. Banks and liquidity management

Liquidity management includes managing the reserverse in a way that it can respond to foreseeable withdrawal of deposits. Banks usually keep some deposits and expect that some loans will be repaid. They can also borrow some resources from interbank markets or from central bank with the discounted rate.

We can consider the asset management side of banks’ balance sheet as a two-stage process. In the first step, banks make decision about the amount of their reserves which is needed to maintain for responding to daily withdrawal of bank deposits. The rest of assets could be kept as income assets. It the second stage banks make decision about how to allocate their income assets among lucrative and risky loans as well as low risk and low-profit bonds.

5. Methodology

Since this studies wants to explain, describe and identify the factors which affect on electronic banking and liquidity management, and its’ purpose is applied, in terms of data collection is descriptive. By analyzing melli banks’ documents hypothesis of this study are analysed. The population consists of melli bank branches in Kermanshah that are equipped with electronic banking facilities. Samples were chosen non-probability and selective. The main reason in this study is assessment of the effects of electronic banking on banks’ liquidity management (bank branches in kermanshsh) however all the melli bank branches in Kermanshah (48 branches) which are using e-banking system, were used as samples. By using excel software sum and average of data were calculated and also for statical analysis spss was used.

6. Conceptual model
7. Remaining liquidity hypothesis analysis

Hypothesis 1: using ATM has a significant and positive effect on liquidity management.

Table 1: analyzing variance.

<table>
<thead>
<tr>
<th>Result</th>
<th>sig</th>
<th>F</th>
<th>Mean square</th>
<th>df</th>
<th>Sam of squares</th>
<th>Modem</th>
</tr>
</thead>
<tbody>
<tr>
<td>The first hypothesis is</td>
<td>0</td>
<td>41/382</td>
<td>21096/912</td>
<td>1</td>
<td>21096/912</td>
<td>Regression</td>
</tr>
<tr>
<td>confirmed</td>
<td></td>
<td></td>
<td>509/806</td>
<td>118</td>
<td>60157/079</td>
<td>Residual</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>81253/992</td>
<td>Total</td>
</tr>
</tbody>
</table>

Hypothesis 2: using POS has a significant and positive effect on liquidity management.

Table 2: analyzing variance.

<table>
<thead>
<tr>
<th>Result</th>
<th>sig</th>
<th>F</th>
<th>Mean square</th>
<th>df</th>
<th>Sam of squares</th>
<th>Modem</th>
</tr>
</thead>
<tbody>
<tr>
<td>The first hypothesis is</td>
<td>0/002a</td>
<td>10/098</td>
<td>6405/371</td>
<td>1</td>
<td>6405/371</td>
<td>Regression</td>
</tr>
<tr>
<td>confirmed</td>
<td></td>
<td></td>
<td>634/310</td>
<td>118</td>
<td>74848/620</td>
<td>Residual</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>81253/992</td>
<td>Total</td>
</tr>
</tbody>
</table>

Hypothesis 3: using internet bank has a significant and positive effect on liquidity management.

Table 3: analyzing variance.

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<th>F</th>
<th>Mean square</th>
<th>df</th>
<th>Sam of squares</th>
<th>Modem</th>
</tr>
</thead>
<tbody>
<tr>
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<td>27/665</td>
<td>15431/796</td>
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<td>15431/796</td>
<td>Regression</td>
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<tr>
<td>confirmed</td>
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<td></td>
<td>557/815</td>
<td>118</td>
<td>65822/195</td>
<td>Residual</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>81253/992</td>
<td>Total</td>
</tr>
</tbody>
</table>

Hypothesis 4: using pinpad has a significant and positive effect on liquidity management.

Table 4: analyzing variance.

<table>
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<th>Result</th>
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<th>F</th>
<th>Mean square</th>
<th>df</th>
<th>Sam of squares</th>
<th>Modem</th>
</tr>
</thead>
<tbody>
<tr>
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<td>23/470</td>
<td>13480/329</td>
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<td>13480/329</td>
<td>Regression</td>
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<tr>
<td>confirmed</td>
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<td>574/353</td>
<td>118</td>
<td>67773/663</td>
<td>Residual</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>81253/992</td>
<td>Total</td>
</tr>
</tbody>
</table>

Hypothesis 5: using phone bank and mobile bank has a significant and positive effect on liquidity management.

Table 5: analyzing variance.

<table>
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<th>Result</th>
<th>sig</th>
<th>F</th>
<th>Mean square</th>
<th>df</th>
<th>Sam of squares</th>
<th>Modem</th>
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</thead>
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<td>13166/939</td>
<td>1</td>
<td>13166/939</td>
<td>Regression</td>
</tr>
<tr>
<td>confirmed</td>
<td></td>
<td></td>
<td>310/832</td>
<td>118</td>
<td>36678/209</td>
<td>Residual</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>49845/148</td>
<td>Total</td>
</tr>
</tbody>
</table>

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8. Conclusion

Totally e-banking tools included, automatic teller machine, (atm), points of sale(pos), (pinpad), phone bank and mobile bank on the one hand decreases customers’ demands for cash by electronic transfer of funds and on the other hand when someone decides to use electronic cash it means that he/she keeps his/her most cash inventory in the operating banks as visual deposits. The bulk of the money supply in the market supplies of equipping people’s visual deposits through commercial banks. If the majority of community decide to use e-money it deals to increasing in the ratio of visual deposits to booknotes and money in the hands of people that can increase the supply of visual deposits and consequently the supply of mone .It causes to increase liquidity in banks and make them able to respond to their financial commitment to their customers and it means banks’ liquidity management will improve. The factor which can affect on the result of this research is the market risk that because of the banks competition and because information and statistic are confidential, it was not available for this research.

References

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