The Impact of e-Banking on Achieving Competitive Advantage for Banks in Jordan

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Abstract

The present study aims to identify the impact of electronic banking on achieving competitive advantage for banks in Jordan. To achieve the goal of the study, a questionnaire consisting of (24) parts divided on (4) areas was distributed to the study sample consisting of (209) Branch Managers of (3) main banks: The Housing Bank for Trade and Finance, Arab Bank, and Jordan Islamic Bank in (3) provinces: Amman, Irbid, and Zarqa, who were selected randomly from the population of the study. After conducting the necessary statistical treatment, the results showed the presence of a statistically significant impact at the level of significance (α = 0.05) for e-banking services in achieving competitive advantage in the banking sector in Jordan.

Keywords: ELECTRONIC BANKING, COMPETITIVE ADVANTAGE, JORDANIAN BANKS.

Introduction:

The world is witnessing today profound transformations and acceleration as a result of the tremendous development of information technology and the steady growth of the volume of information, Led to the emergence of new types of transactions and activities in various fields (Joseph, et al, 2005, p397-413), The banking sector has been one of the first sectors that have adopted many electronic applications to improve performance and gain a competitive advantage strategy, In light of the extensive use of information and communication technologies, the financial services industry and banking provided new systems and applications that maximizes the use of modern technology that are now available (Qaddomi ,2008, p293-294), so it was necessary for banks to change the concept of traditional banking services to remote banking services because of the rapid growth of electronic banking service by customers and increased competition among banks due to increased customer expectations (Joseph, et al, 2005, p397-413), also the intention of banks to reduce costs, raise efficiency and attract more customers, And the desire to expand in the provision of banking services ranging from ATM services and direct deposit payment and electronic funds transfer and PC Bank.

The E-banking work includes operations and activities that are held or exercised, or promoted by electronic or optical means (such as telephone, computer, ATM and Internet, etc.), As well as the operations conducted by the issuers of payment cards or electronic credit and also
the institutions that deal remittances electronically and have sites for viewing, purchasing and sale (Sanosi, 2003, p1).

Study methodology:

The researcher reference to the theoretical literature and previous studies related, Then he designed a questionnaire consisted of two parts, the first section: ensure public information for the study sample, and the second section: included (24) items distributed on (4) areas, these are: field service of e-banking via plastic cards and include (6) sections, and the field of E-banking services via the internet includes (6) sections, and the field of E-banking services electronically via SMS includes (6) sections, and the field of competitive advantage for banks and includes (6) section.

Validity of the study case:

To ensure the veracity of study, the researcher tool offer a range of arbitrators of specialists to ensure the veracity of the tool has been corrected and then applied to the original sample.

Stability of the study case:

To verify the stability of the tool study (Cronbach's alpha) equation was applied on all the paragraphs of the areas of study and the instrument as a whole, as seen in Table (1).

Table (1)

<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Sections</th>
<th>Reliability coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E-banking via plastic cards</td>
<td>6</td>
<td>0.47</td>
</tr>
<tr>
<td>2</td>
<td>E-banking via internet</td>
<td>6</td>
<td>0.92</td>
</tr>
<tr>
<td>3</td>
<td>E-banking via SMS</td>
<td>6</td>
<td>0.68</td>
</tr>
<tr>
<td>4</td>
<td>Competitive advantage for banks</td>
<td>6</td>
<td>0.70</td>
</tr>
<tr>
<td>5</td>
<td>Instruments as a whole</td>
<td>24</td>
<td>0.84</td>
</tr>
</tbody>
</table>

It appears from table (2) the transactions stability to study tool areas ranged between (0.68-0.92) was the highest for the "E-banking services via internet", and the lowest for the field of "services of E-banking via SMS," The value reliability coefficient of the instrument as a whole (0.84), which is a high values and acceptable for the purposes of the application of the study.
Variables of the study:

This study included the following variables:

- Independent variable: electronic banking.
- Dependent variable: competitive advantage

Statistical treatment:

To answer the study questions averages and standard deviations were calculated and the sum total of both, (Pearson Correlation) coefficient between fields of study has been extracted, (Simple Linear Regression) was applied to study the impact of e-banking services on the competitive advantage of banks.

Results and discussion:

First: Results of arithmetic averages of fields of study

The following shows the averages and standard deviations for the answers for each area of study separately:

- The first area: electronic banking services via plastic cards:

Table (2)

Arithmetic means and standard deviations for the answers respondents to all sample members to field of electronic banking services via plastic cards (n = 209)

<table>
<thead>
<tr>
<th>#</th>
<th>Paragraph</th>
<th>arithmetic mean</th>
<th>Standard deviation</th>
<th>rank</th>
<th>evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Absolute comfort enjoyed by the client in the management of his accounts anywhere around the clock which helped to attract new customers</td>
<td>3.82</td>
<td>0.86</td>
<td>1</td>
<td>High</td>
</tr>
<tr>
<td>2.</td>
<td>Electronic payment service in the payment of financial obligations around the clock contributed to increase customer loyalty</td>
<td>3.31</td>
<td>0.78</td>
<td>3</td>
<td>Medium</td>
</tr>
<tr>
<td>3.</td>
<td>ATM service with a high degree of security and confidentiality contributed to attract new customers</td>
<td>3.35</td>
<td>0.89</td>
<td>2</td>
<td>Medium</td>
</tr>
</tbody>
</table>
Table (2) shows that the arithmetic means for respondents answer all sample members of the field of e-banking services via plastic cards ranged between (2.51-3.82), the highest was paragraph (1) “Absolute comfort enjoyed by the client in the management of his accounts anywhere around the clock which helped to attract new customers” with high rating, and the lowest was section (6)” Complete their financial transactions confidentially through the services provided by the bank without the need to communicate directly with the bank, which increased customer loyalty” with Medium rating, The arithmetic mean of the total of (3.13) with a medium degree assessment.

- The second field: electronic banking services via internet:

Table (3):

Arithmetic means and standard deviations to the answers respondents for all sample members in the field of E-banking services via Internet(n=209)
Table (3) shows that the arithmetic means for respondents answer for all sample members of the field of E-banking services via the Internet ranged between (3.22-3.44), the highest was “The bank provides Money transfer service between client accounts or between the bank's branches across the Internet which contributed to attract new customers” with Medium rating, and the lowest was paragraph (3) “the bank provide the opportunity to do banking transactions through the Internet with no cost which contributed to increase customer loyalty” with Medium rating, the arithmetic mean of the total of (3.36) with a medium degree assessment.

- The third field: electronic banking services via SMS:
Table (4) shows that the arithmetic means for respondents answer for all sample members of the field of E-banking services via SMS ranged between (3.00-4.03), the highest was paragraph (4) “bank provide out the processes that occur to customer's accounts on regular basis through SMS service free of charge which increase customer loyalty” with high rating, and the lowest was
paragraph (3) “bank provide out the processes that occur to customer's accounts on regular basis through SMS service quickly and around the clock which increase customer loyalty” with Medium rating, the arithmetic mean of the total of (3.38) with a medium degree assessment.

- The fourth area: Competitive advantage for banks

Table (5):

Arithmetic means and standard deviations for the answers respondents to all sample members of the competitive advantage for banks (n = 209)

<table>
<thead>
<tr>
<th>#</th>
<th>paragraph</th>
<th>arithmetic mean</th>
<th>Standard deviation</th>
<th>rank</th>
<th>evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>.1</td>
<td>Profit percent for Shareholders</td>
<td>3.39</td>
<td>0.82</td>
<td>3</td>
<td>Medium</td>
</tr>
<tr>
<td>.2</td>
<td>increasing trading volume and annual profit growth</td>
<td>3.76</td>
<td>0.93</td>
<td>1</td>
<td>High</td>
</tr>
<tr>
<td>.3</td>
<td>Offering service to clients with high efficiency</td>
<td>3.42</td>
<td>0.73</td>
<td>2</td>
<td>Medium</td>
</tr>
<tr>
<td>.4</td>
<td>Market share growth and targeting new markets</td>
<td>3.28</td>
<td>0.84</td>
<td>4</td>
<td>Medium</td>
</tr>
<tr>
<td>.5</td>
<td>Cost and pricing flexibility for banking services</td>
<td>3.27</td>
<td>0.83</td>
<td>5</td>
<td>Medium</td>
</tr>
<tr>
<td>.6</td>
<td>Multiplicity and diversity of E-banking services offered by the bank</td>
<td>3.22</td>
<td>0.87</td>
<td>6</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>All fields / competitive advantage for banks</td>
<td>3.39</td>
<td>0.53</td>
<td></td>
<td>Medium</td>
</tr>
</tbody>
</table>

Table (5) shows that the arithmetic means for respondents answer for all sample members of the field of competitive advantage for banks ranged between (3.22-3.76), the highest was paragraph (2) “increasing trading volume and annual profit growth” with high rating, and the lowest was paragraph (6) “Multiplicity and diversity of E-banking services offered by the bank” with medium rating, the arithmetic mean of the total of (3.39) with a medium degree assessment.

Second: outcomes for the assumptions of the study

Main theory: there a statistically significant effect at significance (a=0.05) for electronic banking in achieving competitive advantage in the banking sector in Jordan.

Branching following sub-assumptions:

The first sub-assumption: there is a statistically significant effect at significance (a = 0.05) for the electronic banking services via plastic cards in achieving competitive advantage in the banking sector in Jordan.
To validate this assumption correlation coefficient Pearson (Pearson Correlation) was extracted between fields of (electronic banking services via plastic cards, and the competitive advantage of banks), linear regression analysis (Simple Linear Regression) has also been applied to study the impact of electronic banking services via plastic cards to the feature of competitiveness of banks, tables (7-8) describes it.

Table (6):

Correlation coefficient Pearson (Pearson Correlation) was extracted between fields of (electronic banking services via plastic cards, and the competitive advantage of banks) (n=209)

<table>
<thead>
<tr>
<th>Field</th>
<th>Pearson Correlation</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effect of electronic banking services via plastic cards over the competitive advantage of banks</td>
<td>0.34</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Table (6) shows that there is a positive and statistically significant relationship at the level of significance (a=0.05) between the fields of (electronic banking services via plastic cards, and the competitive advantage of banks) since the value of the Pearson correlation coefficient reached (0.34) which is a statistically significant value.

Table (7)

The result of applying regression analysis (Simple Linear Regression) to study the impact of electronic banking services via plastic cards to the feature of competitiveness of banks (n=209).

<table>
<thead>
<tr>
<th>field</th>
<th>β</th>
<th>T</th>
<th>R</th>
<th>R square</th>
<th>F</th>
<th>Statistically significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>electronic banking services via plastic cards</td>
<td>0.26</td>
<td>5.11</td>
<td>0.34</td>
<td>0.11</td>
<td>26.12</td>
<td>0.00</td>
</tr>
<tr>
<td>competitiveness of banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (7) shows that there is a statistical significance relationship at the level of significance (a = 0.05) between the electronic banking services via plastic cards and competitive advantage to banks from the point of view to the respondents sample, where the value (F) (26.12) is statistically significant, and the value of (R) which indicates the degree of correlation between the independent variable (0.34), and the value (R Square) (0.11) are the value of interpretation ability for the independent variable, also the value of (β, T) (0.26, 5.11) are respectively statistically significant value, as shown above, the presence of a statistically significant effect at significance (a = 0.05) for the electronic banking services via plastic cards in achieving competitive advantage in the banking sector in Jordan. Therefore the researcher accepts the first theory of the study.

the researcher attributes this reason, to the ease of using plastic cards, where the ATM is easy to use and all customers can learn and master the using it with low cost and speed, so providing plastic card service is an advantage enjoyed by the bank, while the study of (Calisir and
Gumussoy, 2008) shows that the use of e-services is still considered expensive for participants compared with the means or techniques of traditional banking services, the credit card options and Payment is very suitable when shopping, and that some of the participants considered the direct banking services is more reliable than electronic services and maintain more privacy-related information, and the ease of using the Internet is an important element in the acceptance of electronic banking services.

Second sub-assumption: there is a statistically significant effect at significance (a = 0.05) for the electronic banking services over the Internet in achieving competitive advantage in the banking sector in Jordan.

To validate this assumption correlation coefficient Pearson (Pearson Correlation) was extracted between fields of (E-banking services via internet and the competitive advantage of banks), linear regression analysis (Simple Linear Regression) has also been applied to study the impact of banking services online e competitive advantage for banks, tables (9-10) describes it.

Table (8):

Correlation coefficient Pearson (Pearson Correlation) between the fields of (E-banking services via internet and the competitive advantage of banks) (n=209).

<table>
<thead>
<tr>
<th>Field</th>
<th>Pearson Correlation</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effect of electronic banking services via internet over the competitive advantage of banks</td>
<td>0.26</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Table (8) shows that there is a positive and statistically significant relationship at the level of significance (a=0.05) between the fields of (electronic banking services via internet, the competitive advantage of banks) since the value of the Pearson correlation coefficient reached (0.26) between the tow fields which is a statistically significant value.

Table (9):

The result of applying regression analysis (Simple Linear Regression) to study the impact of electronic banking services via internet over competitive advantage (n=209).

<table>
<thead>
<tr>
<th>Field</th>
<th>β</th>
<th>T</th>
<th>R</th>
<th>R square</th>
<th>F</th>
<th>Statistically significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic banking services via internet</td>
<td>0.12</td>
<td>3.95</td>
<td>0.27</td>
<td>0.07</td>
<td>15.64</td>
<td>0.00</td>
</tr>
<tr>
<td>Competitiveness of banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (9) shows that There is a statistical significance relationship at the level of significance (a = 0.05) between the electronic banking services via internet and the competitive advantage to banks from the point of view of respondents sample, where the value (F) (15.64) is statistically significant, and the value of (R) which indicates the degree of correlation between the
independent variable (0.27), and the value (R Square) (0.07) are the value of interpretation ability for the independent variable, also the value of (β, T) (0.12, 3.95) are respectively statistically significant value, as shown above the presence of a statistically significant effect at significance (a = 0.05) for the electronic banking services via internet in achieving competitive advantage in the banking sector in Jordan. Therefore the researcher accepts the second theory of the study.

The third sub-assumption: there a statistically significant effect at significance (a = 0.05) for the electronic banking services through SMS in achieving competitive advantage in the banking sector in Jordan.

To validate this assumption correlation coefficient Pearson (Pearson Correlation) was extracted between fields of (E-banking services via SMS and the competitive advantage of banks), linear regression analysis (Simple Linear Regression) has also been applied to study the impact of banking services via SMS over competitive advantage for banks, tables (11-12) describes it.

Table (10):

Correlation coefficient Pearson (Pearson Correlation) between the fields of (E-banking services via SMS and the competitive advantage of banks) (n=209).

<table>
<thead>
<tr>
<th>Field</th>
<th>Pearson Correlation</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effect of electronic banking services via SMS over the competitive advantage of banks</td>
<td>0.58</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Table (10) shows that there is a positive and statistically significant relationship at the level of significance (a=0.05) between the fields of (electronic banking services via SMS, the competitive advantage of banks) since the value of the Pearson correlation coefficient reached (0.58) between the two fields which is a statistically significant value.

Table (11)

The result of applying regression analysis (Simple Linear Regression) to study the impact of electronic banking services via SMS over competitive advantage (n=209).

<table>
<thead>
<tr>
<th>field</th>
<th>β</th>
<th>T</th>
<th>R</th>
<th>R square</th>
<th>F</th>
<th>Statistically significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>electronic banking services via SMS</td>
<td>0.49</td>
<td>10.43</td>
<td>0.59</td>
<td>0.34</td>
<td>108.82</td>
<td>0.00</td>
</tr>
<tr>
<td>competitiveness of banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (11) shows that There is a statistical significance relationship at the level of significance (a = 0.05) between the electronic banking services via SMS and the competitive advantage to banks from the point of view of respondents sample, where the value (F) (108.82) is statistically significant, and the value of (R) which indicates the degree of correlation between the
The results showed that banks offering e-banking service via SMS play an important role in achieving competitive advantage.

To validate the assumption of the study the application of multiple regression analysis at table (12) shows that.

Table (12)

The result of applying regression analysis to study the impact of electronic banking services over competitive advantage (n=209).

<table>
<thead>
<tr>
<th>Field</th>
<th>β</th>
<th>T</th>
<th>Statistically significant</th>
<th>R</th>
<th>R square</th>
<th>F</th>
<th>Statistically significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic banking services via plastic cards</td>
<td>0.15</td>
<td>2.62</td>
<td>0.01</td>
<td>0.63</td>
<td>0.39</td>
<td>44.54</td>
<td>0.00</td>
</tr>
<tr>
<td>Electronic banking services via internet</td>
<td>0.17</td>
<td>3.08</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic banking services via SMS</td>
<td>0.51</td>
<td>8.75</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (12) shows that there is a statistical significance relationship at the level of significance (α = 0.05) between the electronic banking services and the competitive advantage to banks from the point of view of respondents sample, where the value (F) (44.54) is statistically significant, and the value of (R) which indicates the degree of correlation between the independent variable (0.63), and the value (R Square) (0.39) are the value of interpretation ability for the independent variable, as shown from the above table that competitive advantage were mostly effected by E-banking via SMS also were the value of (β, T) (0.51, 8.75) are respectively statistically significant value, plastic cards were less effective with value of (β, T) (0.15, 2.62) and statistically significant, as shown above the presence of a statistically significant effect at significance (α = 0.05) for the electronic banking services in achieving competitive advantage in the banking sector in Jordan. Therefore the researcher accepts the main theory of the study.
Recommendations:

In the view of the previous findings the researcher recommends the following:

1. The need to expand in providing electronic banking services in all banks operating in the Hashemite Kingdom of Jordan.

2. Need for banks to provide electronic banking services at low cost to the client.

3. The need to expand the use of ATMs to provide all branches of banks with ATM machines.

4. Future studies on a larger sample of Jordanian banks in order to determine the extent of the applications of e-banking.

5. Future studies on a sample of customers in order to determine the extent of acceptance of electronic banking and what are the constraints, methods and procedures that must be taken to reduce these Obstacles.
References


Abu Fara, Joseph, Internet applications in small business organizations: the entrance to the rehabilitation of some competitive advantage, International Forum; qualification requirements of small and medium enterprises in the Arab countries, the University of Hassiba Ben Bo Chlef, Algeria, (2006).

Union of Arab Banks, e-commerce and banking and financial services via the Internet, (2000).


Remain, Inam and broadband, Nadia, automated techniques used in the development of modern banking services and its impact on dealing with the bank. Jordan Journal of Applied Sciences, Humanities, 8 (2), (2005), pp. 121-139.

Happy braikh, electronic banking: the reality and the challenge, the second scientific conference: (TQM under the Knowledge Management and Information Technology), University of Applied Sciences, Amman, Jordan, (2006), pp. 68-70.


tahat, Marwan Ahmad, assess online banking services provided by the Jordanian commercial banks, unpublished Master, School of Business and Finance, Al al-Bayt University, Mafraq, Jordan, (2006).


Rare Qahouc, work online banking, Beirut: Arab House, (2001).


Molar, appeal, the legal nature of the electronic card system.

Yahdih, Smlala, TQM entrance to develop the competitive advantage of enterprise economic intervention Introduction Forum First National on Economic Corporation and the challenges of the new economic environment, held on 22 to 23 April 2003, the Faculty of Law and Economic Sciences, University of Ouargla, Book II, (2003).


