



# An Evaluation Of Internet Banking Sites In Islamic Countries

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**By Balachandher Krishnan Guru, Multimedia University**

Web: <http://www.mmu.edu.my>

Email: [bala@mmu.edu.my](mailto:bala@mmu.edu.my)

Dr Balachandher Krishnan Guru is a Senior lecturer at the Faculty of Management, Multimedia University, Malaysia. He is also the Associate Chair of the University's Center for Multimedia Banking, Investment and Accounting. He is actively involved in banking research and supervises many postgraduate students in the area of Banking and Finance particularly with regards to issues relating to Electronic Banking.

**By Bala Shanmugam, Monash University Malaysia**

Web: <http://www.monash.edu.my>

Email: [bala.shanmugam@buseco.monash.edu.my](mailto:bala.shanmugam@buseco.monash.edu.my)

Professor Bala Shanmugam holds the Chair of Accounting & Finance at Monash University Malaysia, where he is also the Head of the Department of Accounting & Finance. Professor Shanmugam has published extensively on electronic banking and has wide international consultancy experience in the same area.

**By Nafis Alam, Multimedia University**

Web: <http://www.mmu.edu.my>

Nafis Alam is currently a Researcher at the Multimedia University, Malaysia.

**By Corrine.J.Perera, Multimedia University**

Web: <http://www.mmu.edu.my>

Corrine.J.Perera is currently a Researcher at the Multimedia University, Malaysia.

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## Abstract

Banks, worldwide are now moving rapidly to an era of technological change. Customers are exposed to various options available in the internet banking websites such as online banking, transfer funds, creation of new banking products and etc. While many banks especially in Europe and the U.S have adopted internet banking, this study shows that the majority of Islamic countries are still in the early stages of developing internet banking. Only some Islamic banks in the Middle East have well-developed internet banking websites for the convenience of their customers. However, since they are still in the infancy stage, there is still room for improvement. Evidence shows that Islamic countries are moving steadily towards internet banking. Given time, Islamic banks may one day stand along their conventional counterparts in the field of internet banking.

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## Introduction

The global trends in technological advancements, financial liberalization and the increasingly widespread usage of the Internet are paving the way for borderless markets. Banks worldwide have adopted new levels of technology and automation to expand globally. Banking institutions are using their web sites not only to provide classical operations such as fund transfer or account details, but also to provide stock trading in world markets, bill payments, check book request, credit card request and investment advice. The advent of the Internet has forced the commoditization of banking products and services and brought a new level of comprehensibility to the financial world. The web has served to unveil price differentials and has given online consumers unrestricted geographical access to a whole range of competitors. Online customers can now openly compare prices, products and services through the Internet creating a whole new challenge for banks. Despite the complications involved about security and reliability, as also about the lack of knowledge of Internet Banking among bank users in many countries, it is obvious that banks are moving slowly and with caution into Internet banking. The prime reasons are of course the concern for security and reliability. With the growing use of Islamic products in banking sector and Islamic countries leading the front in this regard, these banks are also offering web related services to their customers to counterbalance the advantages of conventional banking system. This paper is an attempt to evaluate the web presence of banks in Islamic countries, which are focusing on Islamic products or doing business in both conventional and Islamic products.

## Development of Islamic Banks

According to Khaf (1999), although Arab owned banks appeared in the Middle East in the 1920s, the first bank to follow the Islamic principles appeared in Egypt in 1963 with the establishment of the Misr Ghams Savings Bank. At a lesser formal note, a Pilgrimage Fund was established in Malaysia in the late 1950s to facilitate savings for Muslims to accumulate their savings for a pilgrimage to Mecca. The Fund was later transformed into a full-fledged interest free investment bank in 1962. However, the first commercial Islamic bank namely the Dubai Islamic Bank was formed in the United Arab Emirates in 1974. Today there are more than 250 Islamic banks around the world managing funds of about US\$200 billion. This is equivalent to an average growth rate of 8.6 banks per annum over the last 29 years.

Despite the trends in the growth of Islamic banks around the world, Khaf (1999) reported that these banks represent a small fraction of the domestic markets even in most Muslim countries. However, in some countries such as Pakistan, Iran and Sudan the entire banking system has been transformed into the Islamic version based on the Syariah principles. In most other Muslim countries, the Islamic banks co-exist with conventional banks. To this extent it is worth noting that Malaysia is probably the only country in the world to have developed a dual banking system with the establishment of the Islamic Banking Scheme in March 1993. This scheme allows the conventional financial institutions to offer Islamic banking services alongside their conventional banking services. In this context, it is worth noting that in addition to the locally owned Malaysian banks, some of the foreign owned commercial banks locally incorporated in Malaysia too are operating under the dual banking system.

The Islamic banking products and services are those that are governed by the Syariah rules, which prohibit the charging of interest. The principles of Syariah with regards to banking are thus based one or more of the following.

- i. Cost plus mark up on traded goods (Murabaha) where the bank buys the goods from a third party and then sells them to a customer for a pre-agreed price to be paid at specified point in time in the future.
- ii. Profit Sharing (Musharaka)- It covers trade financing, imports and letters of credit. It is a joint business enterprise in which partners share the profit or loss in an agreed ratio. There is no pre-defined rate of return. Another Islamic banking product related to the concept of profit sharing is the Mudaraba products where the bank manages the funds of its depositors and profits and losses are shared with no pre defined rate of return.

- iii. Rents on purchased equipment or leasing (Ijara)  is mostly used for hire purchase activities.

In Malaysia, the Islamization of the Banking sector is taking place gradually by optimising available opportunities with regards to the development of Islamic banking products and services (Adek, 1999). In addition to the widely accepted Mudaraba investment account and the Musharaka financing, conventional financial instruments are islamised by first identifying the Islamic and un-Islamic elements in the instrument and then replacing the un-Islamic elements with Islamic features. Examples of such instruments are the Islamic Accepted Bills and Islamic Negotiable Instruments. In this way the number of Islamic financial instruments have been increased in the shortest possible time without having to reinvent the wheel.

With these developments in Islamic Banking the next challenge is in taking the Islamic banking products and services to the Internet. To this extent, Southwell (2003) reported that despite the e-banking initiatives undertaken by the larger financial institutions in the Middle East, there are still many small and medium sized banks, which are struggling to create an online presence. Furthermore, Southwell (2003) reports that only 18 of the region's top 100 banks have online transactional capabilities. In addition a recent research carried out by the Institute of Banking Studies in Kuwait had found that almost 20% of the customers are willing to move to another financial institution if their current bank fails to offer online banking services. This indicates that the Islamic banks can no longer ignore the importance of Internet banking, especially with the ever-increasing computer literacy and Internet awareness and usage around the world. This coupled with the benefits of low cost of operations, access to a wider global market for Islamic banks and greater customer convenience would transform Internet banking from a novelty to a necessity if these banks are to compete effectively in a global market. It is in this context that this study is undertaken to investigate the extent and quality of the web or Internet presence of banks in Islamic countries.

## Internet Banking Initiatives in Islamic Countries

There is clear evidence that Internet Banking is gaining momentum in Islamic countries around the world. Roth (2001) reported that fourteen percent of the Internet users in Arab countries where e-banking is available have registered for it. Furthermore it is encouraging to learn from Roth (2001) that the adoption rate of Internet banking in three Arab countries namely Bahrain, the United Arab Emirates and Kuwait matched or exceeded the US adoption rate of 17%. This has spurred Western banks to turn their attention to the Middle East. The Islamic law that prohibits interest is not a major disincentive for these Western banks. On the contrary the Western financial institutions have done well by collaborating with experts on Islamic law in the region to develop services tailored to a devout clientele.

Despite the high rate of Internet penetration in this region, Roth (2001) outlines the following factors, which may hamper the development of e-banking in the Middle East.

- i. Most wealth is concentrated among the older people who are less Internet literate than the younger population.
- ii. The main arguments in favour of e-banking such as time saving, convenience and increased efficiency may be less convincing in much of the region where the pace of life is slower where a visit to the bank branch may be viewed as an opportunity to socialize.
- iii. The absence of adequate infrastructure may be another obstacle to online banking particularly with regards to connectivity.

Compared to western markets, the Middle East region is much less established in cyberspace. According to the Economist Intelligence Unit<sup>[1]</sup>, only around 20% of the region's top banks offer online transactions partly due to low Internet usage. Furthermore, Fourteen percent of the region's Internet users are now registered to e-banking compared to 17% in the US. Three GCC countries namely Bahrain (17%), the UAE (21%) and Kuwait (29%) have adoption rates higher or equivalent to that of US. According to a report issued by Moody's Investors Service<sup>[2]</sup> in 2000, Internet penetration in the GCC countries is more than fifteen times that of the Middle East and North Africa as a whole even though the Gulf hosts only 12% of the total MENA population. This disparity is largely due to higher income and education levels of GCC countries

However, Middle East banks are slowly catching up with their international counterparts with regards to account aggregation, online wealth management, cyber-marketing and on-line insurance and mutual funds. In these Middle Eastern banks only online retail transactions predominate. However, services like WAP banking and online brokerages are slowly emerging at some of the larger or more developed banks.

Throughout the world the move by Islamic financial institutions into financial cyberspace is gaining momentum as banks realize that e-services and e-products can help differentiate them from their contemporaries i.e. conventional banks.

According to Accenture's research [3] almost one third of GCC banks have no intention of introducing e-finance services in the next 18 months or so either because it is not considered a core area of business, the technology or marketing costs are too high, not enough customers have Internet access or because, quite simply, they are not interested in it. Research undertaken by Al-Bassera shows that while 188 out of 273 (73%) could provide information online (see Analysis of Internet Capability for Middle Eastern Banks table below) only 19% of them had full transactional e-capacity with inward and outward financial transactions.

**Analysis of Internet Capability for Middle East Banks**

Region	Full	Hybrid	Info	Total
<b>GCC States</b>				
Kuwait	5	1	3	9
Qatar	3	1	5	9
Bahrain	6	-	17	23
Saudi	9	2	2	13
UAE	15	2	12	29
Oman	2	5	4	11
<b>Sub Total</b>	<b>40</b>	<b>11</b>	<b>43</b>	<b>94</b>
<b>Remaining Middle East</b>				
Jordan	2	-	21	23
Egypt	3	1	39	43
Lebanon	4	15	29	48
Cyprus	3	4	21	28
Turkey	-	2	23	25
Iran	-	-	6	6
Palestine	-	-	1	1
Yemen	-	-	5	5
<b>Sub Total</b>	<b>12</b>	<b>22</b>	<b>145</b>	<b>179</b>
<b>Grand Totals</b>	<b>52</b>	<b>33</b>	<b>188</b>	<b>273</b>

**Notes :**

Full ~ financial transaction capability  
 Hybrid ~ within own bank transactions only  
 Info ~ no financial transaction capability

Source: albassera project ~ June 2002

Notwithstanding the lacklustre futures for e-banking outlined above there are positive initiatives with regards to Internet banking among Islamic countries. Jasimuddin (2001), reported that Internet banking was introduced in Saudi Arabia as early as in 1998 by ministerial decree and as at 2001 73% of the Saudi banks had a web presence and 25% of them were already offering full financial services over the Internet. This clearly indicates the government's commitment to take banking onto the Internet in Saudi Arabia.

It is also worth noting that Vijayan and Shanmugam (2003) studied the service quality of Internet banking in Malaysia and found that two of the top five Malaysian banks had a four star rating out of a maximum five star rating. The remaining three top banks had a three star rating based on a 40-item evaluation instrument. To this extent, it should be noted that Internet banking commenced in Malaysia

in June 2000 and today almost all the domestic banks in Malaysia are offering full Internet banking services. The locally incorporated foreign owned banks were only allowed to operate Internet banking after January 1, 2002.

The Dubai Islamic Bank had launched its Internet banking service Al Islami Online in June 2002 for the benefit of its growing customer base. The Al Islami Online is a comprehensive and completely secure 24-hour banking service seven days a week that can be assessed by the customers from anywhere around the world. This online facility is built on a Sun Microsystems Internet Banking platform with 128 bit encryption code from Verisign. The Al Islami Online offers a wide range of services including balance enquiries, the ability to download and analyse bank statements, funds transfer and payment of utility and Etisalat bills online.

The more recent development is the integration of wireless Internet platform with the existing electronic banking infrastructures of the financial institutions in the Middle East had enabled the Qatar Islamic Bank, the Bank of Kuwait and Middle East and the Doha Bank of Qatar to provide their services through a wide range of mobile devices and networks. This appears a right move in the right direction as mobile phone users are expected to increase tremendously in the near future. To this extent, Birch (1999) had noted that by the 2002 the penetration of mobile phones can be expected to exceed 100% in some countries since people may have several mobile phones, a conventional handset, one built into their car, one in their laptop and another in their PDA's (personal digital assistants).

## Research Framework

In line with the objective of this study to investigate the extent and quality of web presence of banks offering Islamic products and services, the banks included in this study was determined through a three phase selection process. First, all the banks in the Islamic countries obtained from the Islamic finance website at <http://www.Islamic-finance.net> was investigated to determine if they had a web presence or not and the type of banking products and services offered by these banks with regards to Islamic or conventional or both. The web sites of these banking institutions were then analysed based on a model similar to that proposed by Diniz (1998).

Diniz (1998) reported that banks use the web to achieve three main objectives namely to market information, to deliver banking products and services and finally as a tool to improve customer relationship. Based on the extent to which the banks have exploited these three functional opportunities in their web sites, these sites can be described as informational, transactional, or beyond transactional. In addition the quality of the web sites are also affected by the degree or level of interactivity which Diniz (1998) described as Basic, Intermediate and Advanced depending on the availability and usage of various features on the web sites as illustrated in Table 1 below.

Function	Level of Interactivity		
	Basic	Intermediate	Advanced
<b>Informational</b>	Electronic Brochures, Means of Contact, Special Events	Search Engines, Reports Download, Economic Information	Subscriptions, Interface Customisation, Advertisements
<b>Transactional</b>	Opening Accounts, Check Book Requests Card Requests	Balance Enquiry, Bill Payments, Funds Transfer	Electronic cash, Electronic Signature, Electronic Checks

<b>To Improve Customer relationship</b>	Electronic Mail,	Advising Tools,	Videoconferences,
	Suggestions Form, Complaints Forms,	What-if Calculations, Calculators	Service Developments
	Feedback Forms`		

**Table 1-BankWeb Site Evaluation Model**

The bank web sites were then evaluated based on the matrix above by using a binary score of zero and one for each feature in each of the functionality-Interactivity matrix cell. A zero indicates an absence of the feature whereas a one indicates the presence of the feature. Based on Table 1 above, the maximum score for the informational and transactional functionality would be nine each and that for the customer relationship enhancement functionality would be eight based on the number of features for each of these functionalities. Thus a perfectly well developed bank web site should have a maximum overall score of 27 and a zero would indicate a bank with absolutely no Internet presence.

## Results

The Islamic finance website at <http://www.islamic-finance.net/bank.html> provided information on major Islamic financial institutions. However, since the focus of this study was on banks, an attempt was made to only evaluate the web sites of all the banks listed at the site.

Bank	Location	Type of banking	Internet Banking	
			Islamic	Conventional
Arab Malaysian Bank	Malaysia	Islamic and Conventional	No	Yes
Bank Rakyat	Malaysia	Islamic only	No	NA
Bank Simpanan Nasional	Malaysia	Islamic and Conventional	No	No
RHB bank	Malaysia	Islamic and Conventional	No	Yes
Perwira Affin Bank	Malaysia	Islamic and Conventional	No	No
Maybank	Malaysia	Islamic and Conventional	No	Yes
HSBC	Malaysia	Islamic and Conventional	No	Yes
Hong Leong Bank	Malaysia	Islamic and Conventional	No	Yes
Citibank	Malaysia	Islamic and Conventional	Yes	Yes
Southern Bank	Malaysia	Islamic and Conventional	No	Yes
Public Bank	Malaysia	Islamic and Conventional	No	Yes

Bank Islam	Malaysia	Islamic only	Yes	NA
OCBC	Singapore	Conventional	NA	Yes
Bank Muamalat	Malaysia	Islamic only	No	NA
Bank of Palestine	Palestine	Conventional Only	NA	No
Gulf International Bank	Bahrain	Conventional only	NA	No
Bank of Bahrain and Kuwait	Bahrain	Islamic and Conventional	Yes	Yes
United Bank of Kuwait	Bahrain	Islamic and Conventional	No	Yes
Banque Misr Egypt	Egypt	Islamic and Conventional	No	Yes
Al Watany Bank	Egypt	No Access	NA	NA
Egyptian American Bank	Egypt	Conventional Only	No	No
National Bank of Egypt	Egypt	Islamic and Conventional	No	No
Muslim Commercial Bank	Pakistan	Conventional Only	NA	No*
Dubai Islamic Bank	United Arab Emirates	Islamic Only	Yes	NA
ABC Islamic Bank	Jordan	Islamic and Conventional	Yes	Yes
Jordan Islamic Bank	Jordan	Islamic Only	Yes	NA
Jordan Kuwait Bank	◆ Jordan	Conventional Only	NA	Yes*
Al Bank Al Saudi Al Fransi	Saudi Arabia	Islamic and Conventional	Yes	Yes
Arab national Bank	Saudi Arabia	Islamic and Conventional	Yes	Yes
Arab Bank	Saudi Arabia	Islamic and Conventional	Yes	Yes
Al Rajhi Bank	Saudi Arabia	Islamic only	Yes	NA
Bank of Kuwait & Middle East	Kuwait	Islamic and Conventional	Yes	Yes
Commercial bank of Kuwait	Kuwait	Islamic and Conventional	No	No

Bank Saderat Iran	Iran	Islamic and Conventional	No	No
National Bank of Oman	Oman	Islamic and Conventional	Yes	Yes
Oman Arab Bank	Oman	Islamic and Conventional	No	No
Oman International Bank	Oman	Islamic and Conventional	No	No

**Table 2 - Classification of Banks by Location and Product Type**

First, the list of banks in the Islamic finance .net website was examined to determine the type of products and services offered by these banks basically with regards to whether they were Islamic or conventional banking products or both. The findings are presented in the Table 2 above.

It should be noted at this point that the Al Watany Bank of Egypt was excluded from the list in Table 3 since the website was not accessible for further web evaluations. However, based on the information gleaned from the websites of the remaining banks in Table 2, the following inferences are made.

- i. Of the 37 banking institutions considered in this study only six banks offered purely Islamic banking products and services and only four of these six were offering these services via their Internet banking facility.
- ii. Of the 24 banking institutions offering both Islamic and Conventional banking products side by side only eight of these were offering their Islamic products via Internet Banking. However, seventeen of these banks were offering their conventional banking products and services via the Internet.
- iii. Of the five banks offering only conventional banking services only one of them was found to offer their financial services via Internet banking.
- iv. Four of the banking institutions included in the list of financial institutions presented in Table 2 were also found to be offering mobile banking services. These banks include The Bank of Kuwait and the Middle East of Kuwait, The Arab Bank of Saudi Arabia, The Jordan Kuwait Bank of Jordan, and The Dubai Islamic Bank of the United Arab Emirates.

In interpreting the web evaluation scores presented in Table 3, the following must be taken into consideration. First, some of the banks web sites had no demo option or required a password to get access to their Internet banking facility. There were a total of eight banks in this category, which include the Banque Misr Egypt, the Bank of Bahrain and Kuwait, the ABC Islamic Bank, the Jordan Islamic Bank, the United Bank of Kuwait, the bank of Kuwait and the Middle East, and the Commercial bank of Kuwait. Since these banks' web sites could not be completely analysed, they were appropriately excluded in the evaluation. However, these banks had websites, which were informational and used for enhancing customer relationships.

Furthermore some of the banks in the list obtained from the Islamic Finance web site did not even have an informational web site. These include the Palestine International Bank of Palestine and the Al Baraka Bank of Sudan.

<b>Bank Website Evaluation Scores</b>													
<b>Name of Bank</b>	<b>Informational</b>			<b>Transactional</b>			<b>Customer Relationship</b>			<b>Overall Score</b>			
	Bas.	Int.	Adv.	Bas.	Int.	Adv.	Bas	Int.	Adv.	Inf.	Trans.	CR	Overall
Arab Malaysian Bank	2	3	3	3	3	0	1	3	0	8	6	4	18

Bank Rakyat	2	0	0	0	0	0	2	0	0	2	0	2	4
Bank Simpanan Nasional	3	0	1	0	0	0	2	2	0	4	0	4	8
RHB Bank	2	2	2	3	3	0	1	3	0	6	6	4	16
Perwira Affin Bank	2	3	0	0	0	0	3	1	0	5	0	4	9
Maybank	3	3	3	3	3	0	3	3	1	9	6	7	22
HSBC Malaysia	3	3	3	3	3	0	3	3	1	9	6	7	22
Hong Leong Bank	3	2	3	3	3	0	3	3	0	8	6	6	20
Citibank, Malaysia	2	3	2	3	3	0	3	3	0	8	6	6	20
Southern Bank	2	3	2	3	3	0	1	2	0	7	6	3	16
Public Bank	2	2	1	3	3	0	3	2	0	5	6	5	16
Bank Islam	3	2	3	3	3	0	1	3	0	8	6	4	18
OCBC	3	3	3	3	3	0	3	3	0	9	6	6	21
Bank Muamalat Indonesia	2	3	1	0	0	0	3	0	0	6	0	3	9
Bank of Palestine	2	2	0	0	0	0	1	0	0	4	0	1	5
Gulf International Bank	2	2	0	0	0	0	1	0	0	4	0	1	5
Egyptian American Bank	2	2	0	0	0	0	1	0	0	4	0	1	5
Nat. Bank of Egypt	2	1	0	0	0	0	1	0	0	3	1	0	4
Muslim Com Bank	2	2	0	0	0	0	2	1	0	4	0	3	7
Dubai Islamic Bank	3	2	3	1	3	0	1	1	0	8	4	2	14
Jordan Kuwait Bank	3	3	3	3	3	0	3	1	0	9	6	4	19
Jordan national Bank	3	3	2	0	0	0	3	3	0	8	0	6	14
Arab Nat. Bank	2	2	2	3	3	0	1	1	0	6	6	2	14

Arab Bank	3	3	3	2	3	0	3	2	0	9	5	5	19
Bank of Saderat Iran	2	0	2	0	0	0	1	0	0	4	0	1	5
Nat. Bank of Oman	3	3	3	1	3	0	1	3	1	9	4	5	18
Oman Arab Bank	2	2	1	0	0	0	1	1	0	5	0	2	7
Oman International Bank	2	2	2	0	0	0	2	0	0	6	0	2	8
Al Rajhi Bank	2	3	1	2	3	0	3	3	0	6	5	6	17

**Table 3** Bank Website Evaluation Scores

Based on the web site evaluation reported in Table 3 the following findings are highlighted.

- i. The overall scores in Table 3 indicates that only banks with Internet banking facility had high scores in the range of 14 to 22 on scale with a maximum score of 27. An exception to this is the Jordan National Bank, which had a high score of 14 though it was not offering any Internet banking due to the high quality of its informational site and its ability to exploit the Internet to enhance its customer relationship efforts.
- ii. Most of the Malaysian banks offering Internet banking facility had high overall scores indicating high quality of their websites at all three functional and interactivity levels.
- iii. Of the 29 banks whose web sites were evaluated in this study twelve banks had scores less than ten. This amounts to about 41.4% of the total number of banks evaluated. These findings are of concern but it is worth noting that all of these banks were not offering their banking services over the Internet. In fact the nil scores for the transactional functionality was the reason for the rather disappointing scores.
- iv. The Middle Eastern banks which had high overall scores include the Dubai Islamic bank, the Jordan Kuwait Bank, the Jordan National Bank, The Arab National Bank, The Arab Bank, the Bank of Oman and the Al Rajhi Bank.

Finally the relationship between the three functionality scores were examined by plotting a graph of all the possible pair of combinations which resulted in Figure 2 to Figure 4. The overall web evaluation scores were also plotted on the presence or Absence of Internet banking as indicated in Figure1.

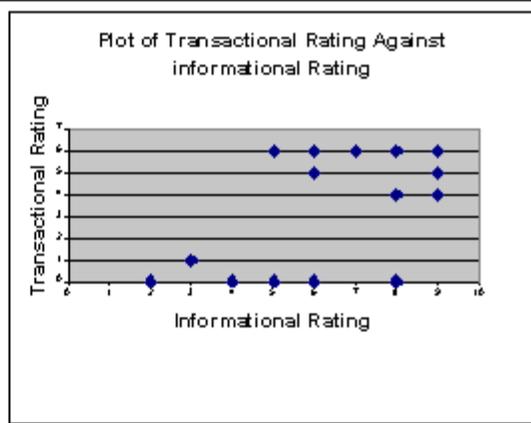
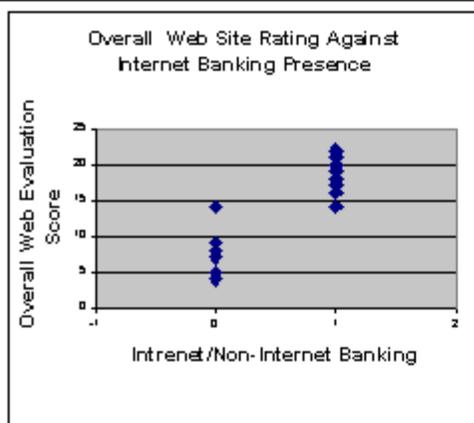


Figure 1

Figure 2

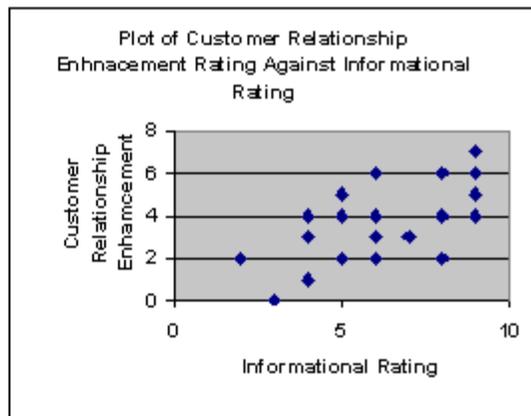
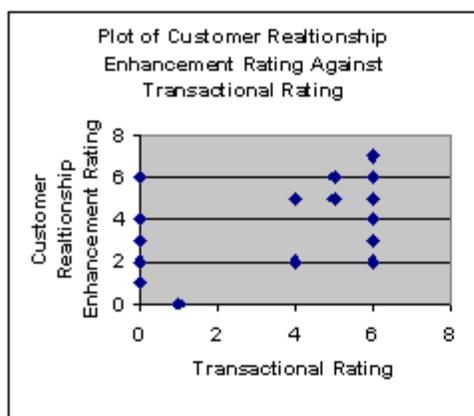


Figure 3

Figure 4

Figure 1 provides a clear visual representation of the relationship between the overall web evaluation ratings and the presence of Internet banking. It is very clear from this figure that the quality of these banking sites are indeed enhanced by the increase in functionality particularly the transactional functionality.

There also appears to be a clear cut relationship between the transactional functionality rating and the informational functionality rating as indicated in figure 2. This is quite obvious since the nature of the information content will certainly be dependent on the extent of the transactional functionality.

On the other hand, there appears to no such obvious relationship between the transaction functionality rating and the customer relationship enhancement rating as indicated in Figure 3. This seems to indicate that even banks without Internet banking operations are also using the web to enhance their relationship with their offline customers through more convenient interactivity. This finding indicates the promising future of the web as a financial services marketing tool.

Lastly, Figure 4 seems to indicate that the customer relationship enhancement rating of the web sites are positively correlated with the customer relationship enhancement rating. Thus higher quality of the informational functionality of the bank web site seem to be associated with better quality customer relationship enhancement features on the web site.

## Conclusion

Despite the rather late debut of Islamic banking the global financial arena, there is evidence to indicate its rapid growth not only in the number of financial institutions around the globe including both in Islamic countries and non-Islamic countries such as the United States and the United Kingdom. Internet banking is increasingly used by banks and other financial service providers to gain competitive advantages, operational efficiencies, faster processing and direct marketing opportunities.

The range and quality of Internet banking varies widely from country to country with income levels and Internet advancements often dictating the disparity. Despite the very late adoption of Internet technology in doing transaction online by Islamic banking institutions they are very fast catching up with the conventional system. Islamic banks have been successful in the introductory phase of web banking. This study showed that only some of the banks had very well developed internet banking while most others did not have well developed features since 41.4% of the banks web sites surveyed in this study had a rating of less than 10 on a maximum rating of 27. Internet banking in the Middle East countries is still in its infancy stage where Internet usage is limited. Islamic banking has gained momentum over the years but they are still a long way from their conventional counterparts in the field of Internet banking. . Nevertheless, this does not paint a gloomy picture about the web presence of Islamic banks as indicated by Sullivan (2003), that the performance of these banks web sites would tend to improve with added Internet experience and as the webs become more functional.

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