Applications of Business Intelligence in the Islamic Banking and Finance

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Abstract:
Islamic banking financial products and services are currently applied by more than 300 Islamic financial institutions established in over 75 countries. Establishing a generic model for Islamic banking and finance requires understanding both concepts of party and control trust. Many consumers trust the electronic payment procedure of a given Website because it has the VISA logo on it, by using the Secure Electronic Transaction (SET) Protocol for electronic credit card transactions. Trust e-banking were introduced for use on Websites to create trust in on-line virtual e-banking such as Trust-e, Web Trust, and BBB online. This is done through reliable and secured payment systems based on privacy policy that says what it can and cannot do which requires collected personal data and/or specific username and password. Islamic banks must apply the SET Protocol for electronic payments through the Internet to expand on its e-banking services. Also, Islamic banking as emerging services in western countries needs to be certified by ISO certificates, and Electronic Data Processing (EDP) auditors, or accountants.

1. Introduction:
The Islamic banking financial services industry faces unique challenges of competing with the well-established traditional finance industry, convincing regulators to allow a distinctive set of operating procedures, and educating customers about the viability of a new concept. On the other hand, the Islamic banking financial services industry must also deal with the relative lack of media attention. Also, the perception of Islamic banking and finance is strongly related to changing social and political perceptions of Islam.

2. Islamic Banking and Finance in Practice:
The Meaning of Islamic Banking and Finance
Islamic banking and finance is based on Islamic Shariah. Shariah-compliant financial banking products and services are of wide range. (Ibrahim & Ong, 2008; Ibrahim et al., 2009; Osmadi, 2006; RICS, 2006, 2007; and RREEF, 2008). Shariah-compliant financial banking products and services include a ban on interest-based transactions. Shariah-compliant financial banking products and services focuses on the following:

A. Profit-and-loss-sharing.
B. The link between finance and productivity of real investment.
C. Fair contracts.
D. The prohibition of all types of unjustified speculation and uncertainty in business contracts.
E. The prohibition of all unethical practices.

Unethical practices are normally related to sectors or products such as the misconduct of arms and weapons, alcohols, tobaccos, gambling and “non-halal” (not forbidden) food products such as pork products.

Products and Services of Islamic Banking and Finance:
Islamic banking financial products and services are very much diversified with substantial continuous growth overtime. This is attributed to the development of a wide range of Shariah-compliant debt instruments, quasi-debt instruments and profit-loss-sharing instruments.
The main Islamic banking financial products and services are as follows (RICS, 2006; and RREEF, 2008):
A. **Mudarabah**: Mudarabah is simply an investment management arrangement, and this is an alternative to commercial banking deposits.

B. **Musharakah**: Musharakah is simply a profit-loss-sharing arrangement; and this is an alternative to commercial banking corporate loans.

C. **Sukuk**: Sukuk are simply tradable and negotiable asset-based certificates.

D. **Ijara**: Ijara is simply an asset leasing agreement.

E. **Murabahah**: Murabahah is simply a purchase and resale agreement, typically applied in case of car loans.

Islamic banking financial products and services also include other normal banking services such as the letter of credits (LCs), the letter of guarantees (LGs), debit smart cards, ATM services, and services by the dealing room. All these applied functions have to represent Shariah-compliant financial banking products and services.

The Islamic bank needs to obtain “Fatwa” form authorized Islamic authority to insure that the bank is providing Shariah-compliant financial banking products and services. Also, internally the Islamic bank needs to have “Internal Fatwa Committee” to monitor the Islamic legitimacy of its activities. Members of such committees are normally more than one “Sheikh” (Islamic religion man) and staff representatives, in addition to possibly have Islamic philosophers, and university professors of Islamic economics. In some cases a single Islamic banking product, such as Murabahah in case of car loans, may need a special Fatwa.

In practice, Islamic banking and finance is relatively new if compared to the traditional banking and financial system. Accordingly, in most Islamic countries we find that managers and staff are normally coming from the traditional banking and financial system, and are normally graduated from universities without studying Islamic banking or Islamic economics. At the beginning, this made lot of problems in the proper application of Shariah-compliant financial banking products and services.

In Egypt for example, some traditional commercial interest-based banks opened new branches, or transformed a specific branch to apply Shariah-compliant financial banking products and services. This happened after the success of the introduction of the pure Islamic banks by the end of the 1970s. Nowadays, Islamic banks or branches provide their new employees extensive training on the Shariah-compliant financial banking products and services. The new generation of staff could be even graduates coming from universities where they studied Islamic banking and Islamic financial economics.

All across the Islamic countries, Islamic investment banking services such as portfolio management services and managing mutual funds are confined only to Halal stocks, by avoiding forbidden companies. Forbidden companies are companies that produce or get revenues by trade in forbidden activities. Examples of this could be companies producing cigarettes, alcohols, or pork products. Also, other examples could be related to service companies, such as hotels selling alcohols, and/or running a gambling casino. Also, examples could include companies depending on interest-rate finance, such as the finance provided by the traditional commercial banks’ loans.
3. The Emergence and Spread of Islamic Banking and Finance:
Islamic banking financial products and services are currently applied by more than 300 Islamic financial institutions established in over 75 countries with huge investments. They are offering full Shariah-compliant Islamic banking financial products and services. The coming section of this research is surveying and studying this market by considering and analyzing the relevant size of this Islamic banking market. (Ibrahim, Ong & Parsa, 2009; IFSL, 2010; Deutsche Bank, 2007; DTZ, 2008; RREEF, 2008; Ibrahim et al., 2009; RREEF, 2008; and KPMG, 2007).

There are several major market players including the most famous names such as Feisal Islamic Bank (operating in several countries including Saudi Arabia, Egypt, and Albania), Bank Al-Jazeera, Bank Islam Malaysia, Qatar Islamic Bank, Al-Rajhy Bank, Al-Baraka Bank (operating in several countries including Saudi Arabia, and Egypt) and Dubai Islamic Bank. In addition to the new Islamic banking finance ‘windows’ established by traditional banking finance providers such as Barclays Bank, RBS Bank, HSBC Bank, and Deutsche Bank. Also, Citicorp Banking Corporation established Citi Islamic Investment Bank E.C. in 1996 as a separate bank in Bahrain, in addition to its Islamic banking activities and solutions in the United Arab Emirates.

The global market for Islamic banking financial products and services is estimated to be USD 1 trillion in 2010. There are more than 680 Islamic funds. They comprise Shariah-compliant equity funds with assets of more than USD 15 billion, in addition to Islamic exchange traded funds.

On the other hand, the first Islamic real estate investment trust (REIT) was incorporated in Malaysia in 2006. Also, Kuwait Investment Authority, Abu Dhabi Investment Authority, and Qatar Investment Authority are also expected to be a major source of capital for Islamic property funds.

Also, Islamic property insurance was also introduced recently, within the introduction of the new Islamic insurance services and solutions. New market players include Beit Al-Tamen Al-Masy Al-Saudi (Egyptian-Saudi Insurance Home) in Egypt which is owned by Feisal Islamic Bank and the Barka Bank (which is an Islamic Bank), in addition to the new El-Khorafy Islamic Insurance Company in Egypt and Kuwait.

This new insurance companies are to support the Islamic banking activities, and to provide individuals and corporate with Islamic insurance services, and solutions. Also, several new Islamic funds were recently established in Egypt within the last 3 years to provide Islamic long-term funding services for the real estate market as an Islamic mortgage loans, especially after the recent issuance of the Egyptian Real Estate Mortgage Law.

Global consistency and standardization of Islamic banking financial practices was also considered. Shariah Accounting Standards have been developed by specialized organizations for these Islamic banking financial products and services. These organizations include the OIC Islamic Fiqh Academy, the Accounting and Auditing Organization for Islamic Financial Institutions, and the Islamic Financial Services Board. The applied systems are advanced and allow for electronic data processing (EDP) audit.

On the other hand, a variety of Islamic equity indices, including an Islamic property index are now provided by Standard & Poor’s (S&P), FTSE and Dow Jones. These indices are required for investment benchmarking purposes. Also, several agencies have developed rating procedures for Sukuk issuances such as the International Islamic Rating Agency, and the Rating Agency of Malaysia.

4. Islamic Banking and Finance with Global Acceptance:
The Islamic banking financial services industry in the Western media was facing the threat of not only being undermined, but also facing hatred after 9/11. The issued articles were few and far between. Fortunately, since then there has been a constant downward trend of such articles, while positive coverage of Islamic finance has been currently increasing.

Western media coverage of Islamic banking and finance does not any more associate it with terrorism and started to explore a greater scrutiny of the industry which provided for growth opportunities through further understanding and awareness among consumers, media professionals, and industry regulators.

There is still much work to be implemented in terms of educating consumers, professionals, and regulators about the industry.

This is certainly to be expected, given the relatively recent growth of the industry in the Arab countries, and all the Islamic countries. (Ali, 2008; The Great Divide, 2006; Haron, 1994; Mennai, 2005; The WIBC, 2005; and Views of Islam Remain Sharply Divided, 2004).

5. Toward a Generic Model of Trust for Islamic Banking and Finance:
Establishing a generic model for Islamic banking and finance requires understanding both concepts of transactions’ party trust and control trust in a detailed manner (Bons 1997; Bons; Lee; and Wagenaar, 1997; Castelfranchi, 1998; Castelfranchi, 2012; Das, 1998; Ganzaroli, 1998; Holland 1998; Keen, 1999; Shapiro, 1987; and Mayer, 1995).

**Party Trust:**
Party trust could be easily understood if we divide it into objective trust reasons and subjective trust reasons.

**Party Objective Trust Reasons**
This is based on social predetermined concepts such as the uniform of a doctor. You normally trust the medical advice of anyone who is wearing a white coat inside a hospital.

**Party Subjective Trust Reasons**
Subjective trust reasons could be based on several aspects as follows:
1. This is based on understanding such as your trust in those who you can expect their goals, capabilities, and plans.
2. This is based on communality such as your trust in the opinions of the other members of your society.
3. This is based on personal experience such as your trust in someone based on a positive history of previous interactions and positive experiences in this person.

**Control Trust:**
Also, control trust could be easily understood if we divide it into objective trust reasons and subjective trust reasons.

**Control Objective Trust Reasons**
This is based on objective predetermined concepts such as your trust in the control procedures because it is approved and verified by an organization. For example, many consumers trust the electronic payment procedure of a given Website because it has the VISA logo on it.

**Control Subjective Trust Reasons**
Subjective trust reasons could be based on several aspects as follows:
1. This is based on understanding such as your understanding of how a well-known control system of the Secure Electronic Transaction (SET) Protocol for electronic credit card transactions works.
2. This is based on communality such as your trust in a control system that protects you against fraud based on your trust in the opinions of the other members of your society.
3. This is based on personal experience such as your trust in the control procedures based on a positive history of previous successful interactions and positive experiences in detecting fraud.

In addition to the mentioned above SETs, other applications from electronic payment systems show how this classification of trust reasons can be applied. Recently, for instance, a wide range of the so-called trust e-banking were introduced for use on Websites to create trust in on-line virtual e-banking such as Trust-e, Web Trust, and BBB online. The Islamic banks processes of finance of its customers in their daily transactions are normally done based on both party trust and control trust to match with the normal commercial banking activities. This is done through reliable and secured payment systems based on privacy policy that says what it can and cannot do which requires collected personal data and/or specific username and password.

Therefore, we can conclude that the spread of the Islamic banking services through the latest applications of the artificial business intelligence technology must be always based on the following:

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\text{Transaction Trust} = \text{Party Trust} + \text{Control Trust}
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On the other hand, e-Islamic banking services needs to be developed to cover the customers’ day-to-day purchases. This is required in light of the need to expand e-Islamic banking services to new sectors and clients based on “Halal” (not forbidden) widespread services. This is required to increase the clients’ base (clientele) and to spread worldwide. This could be done through the communality trust in the case of Amazon.com and its book reviews written by interested readers, and not by the sales department of Amazon.com to make purchase decisions via e-Islamic banking payment system. This type of communality trust holds for information used by the on-line newsgroup and chat platforms. The use of the e-Islamic banking payment system will also benefit from the recommendations of the customers to their friends, which will also introduce e-Islamic banking payment system continuously to many new users.

Recommendations:
Islamic banks must apply and expand in the advanced applications of the Secure Electronic Transaction (SET) Protocol for electronic payments through the Internet to expand on its e-banking services. This will provide more trust on their emerging services, and will attract more local and global clients to utilize their services more frequently. Also, Islamic banking as emerging services in western countries needs to be certified by ISO certificates, and Electronic Data Processing (EDP) auditors, or accountants. ISO certificates and official accountancy statements are official indicators required for the objective customers trust, especially in western countries.

These requirements are still needed in a continuously developed and highly competitive market of Islamic countries. It is still very important to publicize these trust applications in the local and international media as well as in the Internet.

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The WIBC, 2005 [World Islamic Banking Conference, Manama, Bahrain] tackles thorny issues about Western perception of Islamic banking (www.ameinfo.com).


