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Aida Kammoun Abdelmoula, and Asma Abidi

The Effect of the Subprime Crisis on the Financing of Entrepreneurial Activities by Islamic Banks

Aida Kammoun Abdelmoula *(Correspondence author)*
Higher Institute of Business Administration, University of Sfax, Tunisia
Route El Matar Km 4,5 ; BP 1013, 3018 Sfax, Tunisie
Tel: +216-74-680-460 E-mail: abdelmoula.kammoun@yahoo.fr

Asma Abidi
Higher Institute of Management, University of Tunis, Tunisia
41, Rue de la liberté, cite Bouchoucha 2000 Le bardo, Tunis, Tunisie
Tel: +216-71-588-423 E-mail: labidiasma@hotmail.fr

Abstract: According to Rodney Wilson (2009), the subprime financial crisis and the subsequent economic recession had encouraged economists world-wide to consider alternative financial solutions. Attention has been focused on Islamic banking and finance as an alternative model. The purpose of this research paper is to assess empirically the effect of the subprime crisis on the financing of entrepreneurial activities by Islamic banks using a sample of 10 Islamic banks during the period from 2004 to 2009. The empirical results show that Islamic banks have found in the crisis an opportunity to justify their practices to gain market share and to introduce themselves to the aid of entrepreneurial activities.

JEL Classifications: G21, P43, Z12

Keywords: Islamic banks; Subprime crisis; Entrepreneurial financing

1. Introduction

The Islamic banking is an interest free banking system characterized by the prohibition of the interest rate and having as main object the expansion of justice, equity and welfare. The topic of Islamic banks despite a relatively short history is a phenomenon that keeps a growing attention. Rapid emergence, development and interest in Islamic finance in the last two decades are mainly due to two major events:

- The events of September 11, 2001: contributing to the enrichment of Muslim countries. Indeed, the increase of the oil price per barrel arranged these countries to release huge amounts of capital which have been invested in the West.

- The subprime financial crisis: this crisis exploded in 2007, has strongly hit the global economy and brought the global financial system down. The literature on the cause of the financial crisis is well developed. The main causes cited in literature were the bursting of the United States housing bubble. These were financed by subprime securitization, which is the practice through which the bank sells its receivables without notifying the debtor. According to Islamic economists (Siddiqui, 2009), (Chapra, 2009), (Bagsiraj, 2009) the crisis is due to a failure in regulation, legislation and transparency and it has obviously several effects which are: an excessive monetary expansion and a large balance of payment deficits. Thus, it is a result of interest rates (Riba).

The subprime financial crisis and economic recession, had encouraged economists world-wide to consider alternative financial solutions (Rodney Wilson, 2009). Attention has been focused on Islamic banking and finance as an alternative model. A loss of confidence in the conventional system has so favored Islamic finance development. Hence, Islamic banks have expanded in several Western countries, such as Luxembourg and France. Many people had lost confidence in interest based system. In contrast, there is a growing interest on the Islamic financing and banks. In this context, this paper aims to test if the crisis has increased the activity of Islamic banks specifically in financing entrepreneurial activities. The aim is to know if the financial crisis encouraged a diversion of customers towards Islamic banks given the existing constraints of funding in times of crisis. In other words, it seeks to give answers to the following questions:

- What are the specificities of Islamic banks which enable them to help maintain viability, stability and continued growth in a volatile international environment?

- What is the impact of financial crisis on the entrepreneurship financing by Islamic banks? In other words, what is the contribution of Islamic banks in the financing of entrepreneurial activities following the subprime crisis? This essentially represents the specificity of our work.

We organize the remainder of this paper as follows. The following section will show the basic principles of Islamic banks and the products they offer to finance entrepreneurship and emphasis the regulatory framework of Islamic institutions operations. In fact, the originality of the Islamic financial system is its operating principle, the risk it generates and the role it plays with regard to the financing of entrepreneurial activities. It also shed a retrospective light upon the literature review related to the impact of the crisis on the financing of entrepreneurship by Islamic and conventional institutions. Section three will present the empirical modeling, results and interpretations. The conclusion will summarize our contribution and present some possible extensions of this paper.

2. Islamic Finance, Subprime Crisis and Financing of entrepreneurial Activities

While traditional economies are still driving into a severe crisis and that part of classical economic theories is calling into question, Islamic finance has become the fastest-growing segment of the global financial system. Understanding the Islamic finance is not easy for people operating in economies based on a conventional model. Indeed, the Islamic financial system is based by no means on religious and ethical foundations drawn from the Muslim holy books that prohibit interest and advocate the profit and lost sharing. In order to improve our understanding, it is necessary to explain the characteristics of the Islamic financial system.

2.1 History and Principles of Islamic Finance

Islamic financing techniques are not new therefore today. The revival of the Islamic financial techniques began in 1960's with the launch of the social bank 'Mit Ghamar' in Egypt. Since 1990's this industry has seen an exponentially growth at a rate of 10-15% per year and the number of Islamic financial institutions worldwide has risen from one institution in one country in 1975 to over 300 institutions operating in more than 75 countries (El Qorchi, 2005).

The basic rules of Sharia (which is the set of basic rules as legalized by the Quran, Hadith, al Ijtihad, al Ijma and al Qyas) constitute a serious moral limitation that Muslims must take into account in their daily lives and especially in their financial transactions.

Subjects as diverse as taxation, public expenditure, interest, land, natural resources, wage rates, finances were the subject of several reviews either in the "Holy Coran" or in the Sunnah. The wisdom behind the prohibition of usury is not just because money has no intrinsic value, but also to avoid injustice and unfair enrichment of one party at the expense of another party.

To obey the principles of Islam, Islamic financial institutions must have the objectives of promoting and encouraging respect for Sharia laws specific to the financial community and providing all Muslims modern financial services enabling them to make transactions and use of financial resources necessary for true economic development. Islamic finance is deemed to offer solutions to economic and social problems of all times and all places. To do this, the Islamic bank will prefer to associate systematically with its clients in profitable operations rather than lend its funds. So, if the company prospers, the depositors of the bank will allocate a portion of profits but cannot be guaranteed beforehand. Islamic finance has actually been exported as a product for Westerners. It becomes attractive for its halal aspects, providing guarantees where excessive speculation has installed doubts.

Islamic banks differ from conventional banks by following the principles laid down by the Islam: (1) the prohibition of interest, (2) the prohibition of randomness “Maysir”, (3) the concept of illicit “Haram”, (4) the principle of sharing of profit and loss and (5) the existence of a tangible quid pro quo (trade).

2.1.1 Financial Intermediation

To apply the rules of Sharia on finance, Islamic banks highlighted specific financial operations and limited the resources. In addition to capital, equity and public funds, their main sources come from savings deposits, deposits for investment and charity. The funds collected are placed in two types of accounts: current accounts and accounts of sharing profit and loss.

It should be noted that in practice, some IFIs achieve exceptionally interest-bearing transactions. However, to continue the essence of their financial system, IFIs purify the profits from illicit activities such as alcohol, weapons, pornography, etc. by transferring them to charity. The method used is a "purification ratio" applied to dividends whose formula is as follows:

Purification ratio ═ (Revenue derived from illicit activities/Total Revenues)* dividends

To finance the commercial operations, Islamic banks offer six types of contracts: Murabaha, Ijara waIqtinaa, Istisnaa, Bai'moajal, Bai'Salam, and Bai’bithaman Alajel. And to promote the participation they offer five types of contracts Mudharaba, Musharaka, Muzakat, and direct investment. Also Islamic banks serve to its customers Quardh Al Hasna used to finance the concessional operations.

2.1.2 Social Intermediation

Social intermediation of Islamic financial institutions is based on Al Adl (social justice) and Al Ihsan (benevolence).The main purpose of these concepts is designed to help those who don't already have financial assets, enterprises that have a light weight and lack access to economic resources to enable them to exploit market opportunities. According to Khan (1995) the social role of Islamic banks is characterized by a variety of activities that can contribute to wealth creation for poor and improve economic development and prosperity. Qard Hasan, charity, Bay Bithaman Ajal, Bay Salam and Al Ijara are some examples of these activities.

The process of social intermediation offered by Islamic banks appears in the First view similar to the role played by social organizations but it is far from being so. Through this mechanism, Islamic banks exploit control costs of small entrepreneurs, estimated as potential customers in the long term to them.

Besides the social dimension, there are several other arguments in favor of the integration of the Islamic banks services in microfinance. First of all, financing production activities and micro entrepreneurs, banks combine the know-how of the skilled workforce with funds to expand their activities and ensure growth. Then, by using the methods of funding and the guidance approved by the Sharia, Islamic banks can reduce problems of asymmetric information faced by conventional banks. To ensure the transfer of funds to the poor and to manage the inherent risks of small businesses, Islamic banks have implemented a special alternative called the Special Purpose Vehicles. It is a legal entity created for a corporate sponsor to carry out a specific activity of microfinance. The funds are channeled through the designated bank and should be used only for the prefixed objectives.

2.2 Regulatory Framework for Islamic Banks

The distinct feature of Islamic finance requires the establishment of an effective legal and regulatory framework that allows directors and managers to manage appropriately the circumstances and the risks they face.

Archer and Ahmed (2003) highlight the need of Islamic banks for a specific regulation and they divide governance structures into two:

- An internal regulation which represents the activities of the board of directors and the board of supervisors of Sharia's law, the contributions of the non-executive directors committee and internal audit, ensure the reliability of financial information, compliance with laws and efficiency of banking operations.

- An external regulation composed of the shareholders, external auditors, central banks, human society and Islamic accounting standards.

The Islamic banking system plays an important role in mobilizing deposits and providing financing. The standards of Basel II had been designed to accommodate a more comprehensive and risk sensitive approach for banks to calculate regulatory capital, which allow banks to improve operational processes by adjusting the regulatory requirements with their internal risk measurement.

The Islamic Financial Services Board (IFSB), which includes central banks from Islamic countries, was founded in 2002 to satisfy these obligations by highlighting standards largely based on Basel Committee's approach taking into account the nature and the characteristics of Islamic financial products. The IFSB has kept the method of calculating the Risk Weights proposed by Basel II and used a method approach that respects each type of risk. The IFSB concludes very specific rules in the implementation of Basel II in Islamic banks. The Capital Adequacy Standards are structured upon the form of a matrix to transform the risk at different stages of the contract.

The Capital Adequacy Requirement can vary greatly depending on the transformation of risk that is perceived at different levels of a contract. For example in Murabaha or Ijara contract, rather than lending money, an Islamic Financial Institution must acquire a physical asset. The risk passes therefore from a market risk on physical assets at the time of acquisition to a credit risk when the sale closes on deferred payment or Lease.

By measuring the capital adequacy on these contracts, physical assets are weighted not only according to different risk categories, but also according to the dissimilar phases of the contract's life. In order to harmonize its accounting, the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) was created in 1990. The organization has developed international standards to calculate the ratio of capital adequacy and it is totally different from the Islamic Financial Services Board which has developed standards for the governance of Islamic institutions to foster the development of a prudent and transparent financial system that will help controllers to verify the soundness and integrity of Islamic financial institutions.

By his own admission, the AAOIFI seeks to develop appropriate standards for Islamic Financial Institutions and to disseminate standards of accounting and auditing by the IFIs through training, seminars, publishing newsletters, periodicals and finally the execution and implementation of applied research to prepare and interpret accounting and auditing standards for IFIs and to review and modify accounting standards for auditing the IFIs.

2.3 Financial Crisis, Entrepreneurial Activities and Islamic Banks

Summer 2007 was marked by a sudden crisis judged as the most severe experienced by the global economy since a decade. This crisis had been caused by three main factors:

- The low level of financial awareness of the American householders led to an excessive borrowing and lending practices.
- The monetary policy of the federal Reserve Board that cut short term interest rate from 6,5 percent to 1 percent.
- The bank loan securitization which is a process that allows banks to fund their credit growth, to divide credit risk and to arbitrage capital requirements.

The financial crisis has taken a global dimension then, having started in the U.S.A, Europe and emerging countries. In 2008, the index of the U.S. financial sector fell by 58% while the European financial sector index suffered a decline of 57.5%.Stock prices dropped more than 7 percent in Germany and India, 5.5 percent in Britain, 5.1 percent in China and 3.9 percent in Japan. This phenomenon has been called “a world synchronized slowdown” and affected first the ability of banks to lend, and it helped to create an overreaction among investors overseas.

Despite the measures taken by states, bank losses, bankruptcies and near bankruptcies of several financial institutions make households more worried and decrease the indicators of the global stock exchanges. The situation is then enhanced through market speculation and short-term gains. The introduction of international regulation is therefore required to restore confidence to the market players. States have tried to protect the markets to prevent a deepening crisis: They increase deposits guarantees, inject capital, nationalize bankruptcies and undertake to guarantee interbank loans. Regarding the U.S.A, there had been the establishment of the Paulson plan that aims to ensure banks on their loans and deposits and offer funds to those most in need. In France, the state subscribed bonds issued by banks and regarded it as quasi-equity and used 340 billion euros to guarantee interbank loans granted since September 2008. In the United Kingdom, The government used tax payer's money to buy shares in the banks, making them part nationalized and announced a super tax on banking bonuses.

Despite all these efforts, the overall economic and social context was characterized by increasing unemployment, bankruptcies, and lower demand for goods and services. Despite this phenomenon, new business opportunities that did not previously exist emerged: low-cost, green economy, e-commerce, etc.

For employees and business leaders, dealing with the situation and launching his own job become a priority: entrepreneurship can bounce back from a situation of failure (firing, layoffs, etc).

The international financial crisis, according to expert opinion, is solely due to uncontrolled speculation on interest offered by the publicly traded securities. The broad appeal for Islamic banks which do not participate in this type of speculation may therefore seem attractive. The fragility of the international financial system has enabled Islamic finance to take his place and to emerge in the world economies.

Researches on Islamic banks showed that during the crisis they have been affected in terms of exposure into changes, but were not significantly affected because they were very careful in choosing their products. Islamic finance has demonstrated that in spite of the crisis, economy and religion achieve good results. Islamic banks has become the refuge of the richest countries in the world (USA, Great Britain, France) and Islamic finance prohibiting speculation in debt, in large partly responsible for the subprime crisis, has had a phenomenal growth.

Few studies and some field experiments have focused on the links between Islamic financial institutions and SMEs from the most comprehensive research on the subject, Dhumale and Sapcanin (1999) have prepared a technical note in which they tried to analyze how to combine Islamic finance with the needs of small and medium enterprises and they indicated that Moudharaba contracts, Murabaha and Musharaka are the instruments of Islamic finance most appropriate for new entrepreneurial activities.

3. Subprime Crisis and Entrepreneurial Financing by Islamic Banks

3.1 Literature Review and Hypothesis

"Unlike conventional banks, no Islamic bank has failed and has needed government recapitalization which ultimately becomes a burden on hard pressed taxpayers.

All Islamic banks comply with the Basel II capital adequacy requirements and the Islamic Financial Services Board (IFSB) -the body which advises regulators with respect to Islamic finance- has produced detailed guidelines on compliance. The IFSB has an ongoing relationship with the Bank for International Settlements -the institution which developed the Basel standards- and is certain to be consulted as Basel III guidelines are drafted for capital adequacy which is likely to be implemented globally in the coming decade.

The soundness of Islamic banks is accounted for by the fact that they use a classical banking model, with financing derived from deposits, rather than being funded by borrowings from wholesale markets. Consequently when the credit crisis came and borrowing from wholesale markets was halted, Islamic banks were not exposed" (Rodney Wilson, 2009).

The relationship between the financial crisis and the financing of entrepreneurial activities was studied theoretically and empirically. In the paper of Hasan and Dridi (2010), four key indicators were used to assess the impact of the crisis on the two groups of banks, namely, changes in (i) profitability; (ii) bank lending; (iii) bank assets; and (iv) bank ratings. According to these authors, Changes in profitability constitute the key variable for assessing the impact of the crisis. In addition, bank lending and asset growth provide very useful indicators of the contribution of Islamic and Conventional Banks to financial and macroeconomic stability. Finally, bank ratings constitute a forward-looking indicator for bank risk. They suggested that, compared to conventional banks, Islamic Banks (IBs) managed in a different way during the global financial crisis. In fact, by adhering to *Sharia principles*, IBs don't finance or invest in the kind of instruments that have adversely affected their conventional competitors and caused the global financial crisis. They found better cumulative (pre- and post-crisis) profitability suggesting that higher pre-crisis profitability was not driven by a strategy of greater risk taking. Better diversification, economies of scale, and stronger reputation might have contributed to this better performance.

IBs credit and asset growth were at least twice higher than that of CBs during the crisis, suggesting a growing market share going forward and larger supervisory responsibility. "External rating agencies'-assessment of IBs risk was generally more favorable or similar to that of CBs. Higher solvency has facilitated meeting the relatively more robust demand for Islamic banking finance and maintaining stable external ratings" (Hasan and Dridi, 2010).

Noticing these results, a question can be advanced: has the financial crisis encouraged a diversion of customers towards Islamic banks given the existing constraints of funding in times of crisis? Our first hypothesis can so be formulated as follow:

H1: The financial crisis has had a positive impact on the financing of entrepreneurship by Islamic banks.

Subsequently, and to identify the relationship between the subprime crisis and the Islamic financial practices for entrepreneurship financing, the second and third hypothesis are therefore formulated as follows:

H2: The crisis leads to an **increase** of Deposits Based on Profit and Loss Sharing Principle (DBPLS) and subsequently to an **increase** of Investments based on Profit and Loss Sharing Principle (IBPLS).

H3: The crisis leads to a **decrease** in Deposits Not Based on Profit and Loss Sharing Principle (DNBPLS) and subsequently to a **decrease** in Investments Not Based on Profit and Loss Sharing Principle (INBPLS).

3.2 Model Specification

In order to verify our first hypothesis, that is, to test if there is a significant change between the two sub-periods: before and after the crisis, we performed the Wilcoxon test (Mann-Whitney test)which shows if there is a significant change, but does not indicate if this is due to the crisis. A second step is necessary to know the origin of the change in these variables. We test so the second and third hypothesis, referring to the model cited by Beng Soon and Ming-Hua (2009) using econometric techniques of linear regression on panel data.

To highlight the relation between deposits based on profit and loss sharing principle and Investments Based on profit and loss sharing principle in the presence of the global crisis, we estimate the following model:

Model 1: $IBPLS_{it} = \alpha_1 + \beta_1 \, DBPLS_{it} + \delta_1 \, ER_{it} + \lambda_1 \, PC_{it} + \gamma_1 \, ECA_{it} + e_{it}$

For the relationship between the deposits not based on the sharing of profit and loss and investments not based on the principle of sharing of profit and loss in a crisis environment, the model 2 is defined as follows:

Model 2: $INBPLS_{it} = \alpha_2 + \beta_2 \, DNBPLS_{it} + \delta_2 \, ER_{it} + \lambda_2 \, PC_{it} + \gamma_2 \, ECA_{it} + e_{it}$

Where the index i represents banks (i: 1 to 10) and the index t represents the period (2004 to 2009), α_1 and α_2 are the constants and e_{it} is an error term.

<u>Independent variables</u>

-$IBPLS_{it}$: Investments Based on Profit and Loss Sharing principle (Moudharaba and Mousharaka contracts).

-$INBPLS_{it}$: Investments Not Based on Profit and Loss Sharing principle (Murabaha).

<u>Dependent variables</u>

-$DBPLS_{it}$: Deposits Based on Profit and Loss Sharing principle (investment account and special accounts for investment).

-$DNBPLS_{it}$: Deposits Not Based on Profit and Loss Sharing principle (savings account and current account).

-ER_{it}/\$: Exchange Rate of the country where the bank i is installed at time t against the American dollar.

Control variables

- PC: presence of the crisis, it is a dummy variable which takes two values: PC = 1 in the presence of crisis and PC = 0 elsewhere.
- ECA_{it}: Equity capitals to total assets of bank *i* for period *t*.

Data used in our empirical analysis are collected from annual reports published on the websites of Islamic banks listed in the sample for the period from 2004 to 2009.

3.3 Results

Figures 1 and 2 represent the development of investment to total assets and deposits to total liabilities of Islamic banks studied, respectively.

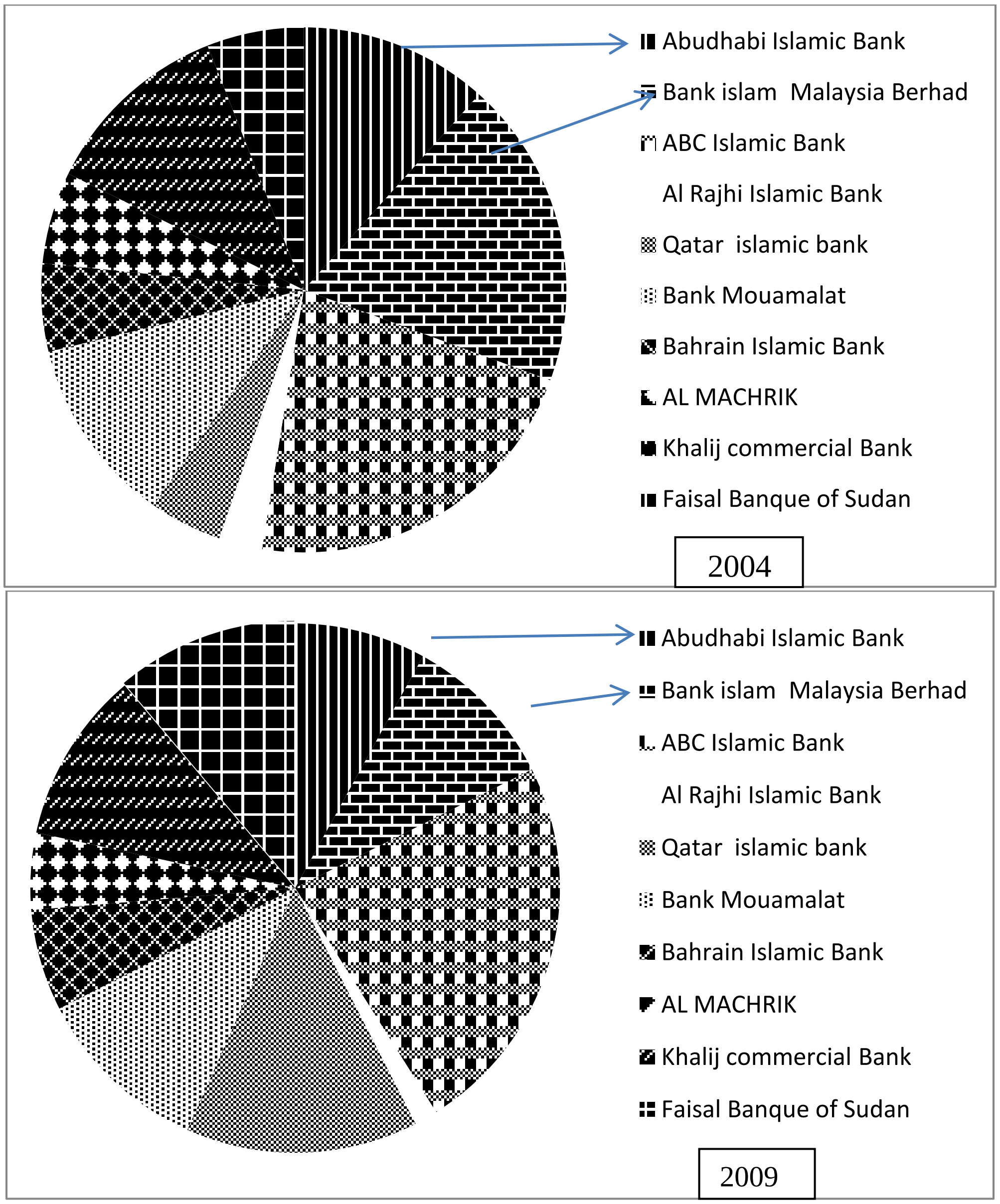

Figure 1. Evolution of the volume of investments (2004 and 2009)

It can be seen from these figures that the volume of investment is unstable for most of the banks studied. Indeed, some banks experienced an increase in investment, while others behaved in a preventive way by reducing the volume of their investments to cope with excepted changes. On the contrary, the volume of customer deposits is almost unchanged. It seems that Islamic banks are very careful in choosing their products despite the fact that their deposits have not declined.

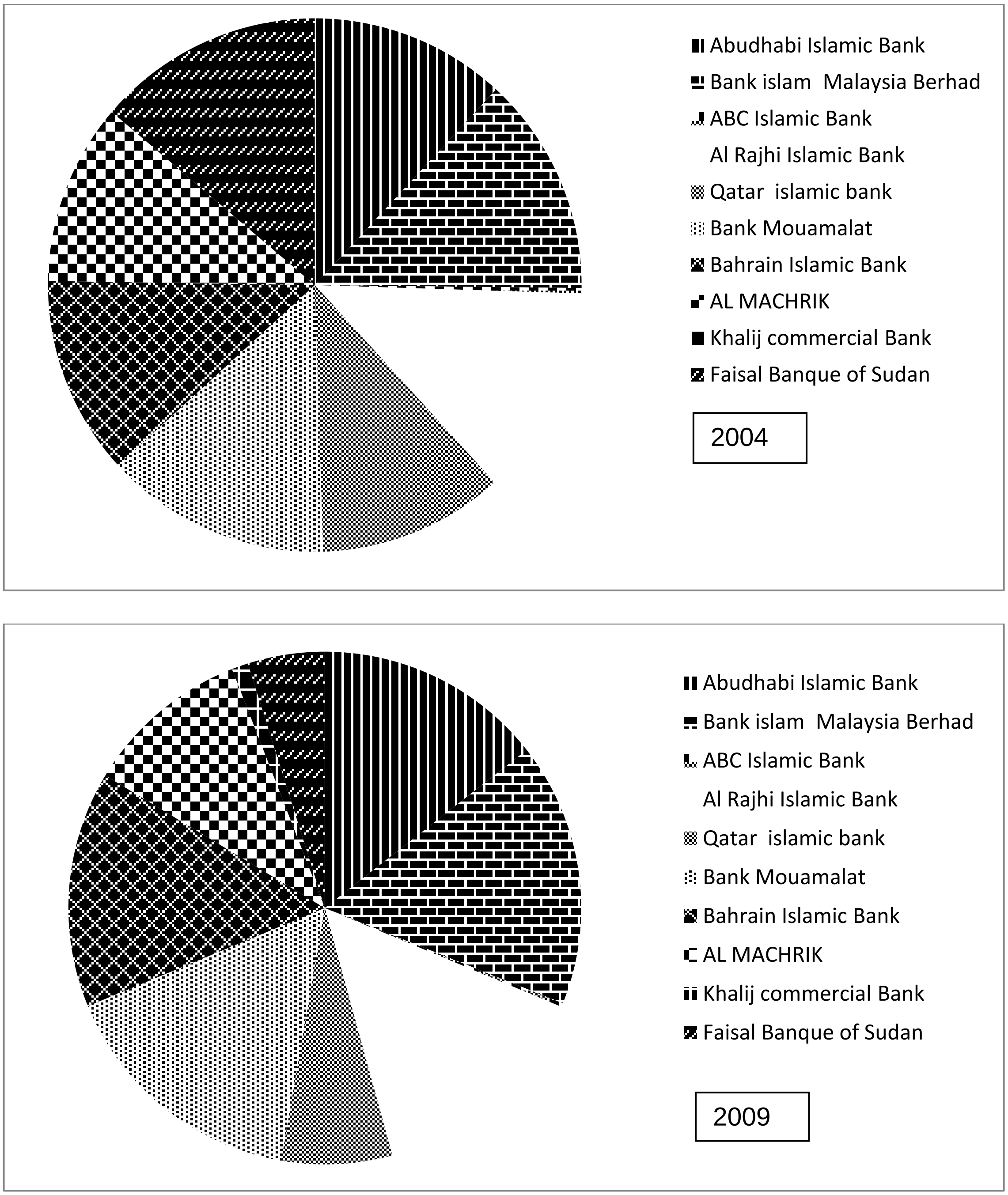

Figure 2. Evolution of the volume of customer deposits (2004 and 2009)

The Wilcoxon test results are displayed in a summary manner in Table 1.

Table 1. Results of Wilcoxon test

Variable	Statistics	p-value	Decision
Murabaha	2.170	0.03	Significant change
Musharaka	-2.602	0.0093	Significant change
Mudharaba	-2.974	0.0029	Significant change
Customer's deposits	2.849	0.004	Significant change
Exchange rate	-0.037	0.0024	Significant change
Equity capital	1.573	0.1156	No significant change

Taking into account the probability of 5%, these results indicate that the median is significantly different from the types of contracts between the two periods studied. Also, the crisis has had a significant impact on customer's deposits and exchange rates, except for equity that have not significantly changed before and after the crisis. Referring to these results, our first hypothesis **H1** (the financial crisis has affected the funding of entrepreneurship by Islamic banks) is accepted.

Estimation of model 1

Table 2 presents descriptive statistics and the correlation between independent and dependent variables:

Table 2. Descriptive statistics for variables in model 1

	Correlation with IBPPP	Mean	Standard deviation
IBPLS	1.00	0.1143143	0.2512462
DBPLS	0.2655	0.3531766	0.2612529
FP	-0.1503	0.1566446	0.154359
ECA	-0.0626	0.7929768	0.9628077
PC	0.0333	0.50	0.5042195

It is clear that investments by Islamic banks not based on profit and loss sharing are much larger than the investments based on profit and loss sharing. Indeed, INBPLS have an average of 0.63 with a deviation of 0.76 (table 4), while the average IBPLS is 0.11 with a standard deviation of 0.25.

In a surround unstable environment marked by a crisis on a global scale, and in order to minimize the risk, Islamic banks prefer to finance projects of non-sharing of profit and loss. On the liabilities side, deposits based on the sharing of profit and loss have a mean of 0.35 and a variance of 0.26. These results lead us to conclude that customers of Islamic banks are also wary of such practices.

Regarding the control variable ECA_{it}, there is a negative correlation (-0.15) compared to investments based on shared loss and profit.

The variation of the exchange rate affects negatively but with a low rate (-0062) investments based on profit and loss sharing principle.

Table 3. Results of the OLS regression of model 1

	Estimated parameters	t-statistics
Constant	0.0084192	0.10
DBPLS	0.2939274	2.19
ER	-0.002304	-0.05
ECA	-0.125732	-0.45
PC	0.0393838	0.59

The impact of the crisis on IBPLS (Model 1) is estimated and reported in Table 3 above.

Referring to the previous table, we see that the linear regression applied to the identification of the impact of the crisis on the means of funding based on Loss and Profit sharing associates a positive and significant relation (β=0.29) between IBPLS and DBPLS. As well, the presence of the crisis takes a positive coefficient (β=0.039).

As estimated, an increase of DBPLS of one unit leads to an increase of 0.29*IBPLS and the presence of the crisis has an amplifying effect for IBPLS.

However, equity has a negative effect (β=-0.125) on IBPLS (investments Based on Profit and Loss Sharing), as well as the exchange rate that has in his turn a negative coefficient with the dependent variable (β=-0.0023).

We can therefore conclude that following the crisis, banks use less equity in investments based on Profit and Loss Sharing.

Estimation of model 2

Table 4. Descriptive Statistics for variables in model 2

	Correlation with INBPLS	Mean	Standard deviation
INBPLS	1.00	0.6393538	0.7594041
DNBPLS	-0.2352	0.5210836	0.2829519
ECA	0.1636	0.1543539	0.0001096
ER	0.5106	0.9628077	0.000381
PC	-0.0998	0.50	0.5042195

The average non-sharing profit and loss investment is 0.63 with a standard deviation of 0.75, indicating that in the presence of the crisis practices considered as less risky are far more frequent. As for variables of liabilities, deposits not based on profit and loss sharing have a mean of 0.52 and a variance of 0.28, but they have a negative correlation (-0.2352) with investments not based on profit and loss sharing. This fact leads us to question the system controlling the practices of Islamic banks that are supposed to use the funds collected on the principle of non-sharing of profit and loss on investments of the same principle.

Table 5. Results of the OLS regression of model 2

	Estimated parameters	t-statistics
Constant	0.9031472	4.43***
DNBPLS	-0.6760053	-2.45**
ECA	-1.779904	-2.67**
ER	0.5788404	5.54***
PC	-0.1834655	-1.19
Note: Asterisks ** and *** indicate significance level of 5% and 1%, respectively.		

All banks in the sample have an average capital ratio equal to 0.15 which indicates that deposits represent a significant portion of the liability of Islamic banks.

On the other hand, 96% of banks surveyed have been affected by changes in exchange rates of the national currencies against the dollar, a change that has a positive correlation (0.5106) with investments not based on profit and loss sharing principle. Estimated results of Model 2 are presented in Table 5 above.

The deposits not based on profit and loss sharing have a negative and significant effect (β = -0.67) with DNBPLS. As well, the presence of the crisis takes a negative coefficient (β = -0.18) similar to equity ratio, with a correlation (β = -1.77) with INBPLS.

The exchange rate has a significant positive coefficient (β = 0.57) indicating a positive effect on investments not based on profit and loss sharing.

4. Conclusion

This research examines the impact of the financial crisis on the entrepreneurship financing by Islamic banks. To assert this, we have traced in the first section the historical origin, the development of Islamic finance and the characteristics of its basic foundations in terms of social and financial intermediation. In the second section we have presented a literature review on the effects of the financial crisis on the financing of entrepreneurship activities by Islamic and conventional institutions to end up with the empirical modeling, results and interpretations.

Islamic banks have found in the crisis an opportunity to justify their practices, to gain market share and to introduce themselves to the aid of entrepreneurial activities. Through sharing profit and loss, the Islamic banking system is aiming to achieve healthy and beneficial economic activity to both partners.

Results show that following the crisis, Islamic banks use less equity in investments based on Profit and Loss Sharing. They became very careful in choosing their products.

Despite of some data limitations that prevented us from taking into account all aspects of Islamic financial contracts, this research offers some useful insights. Our empirical contribution has come to support the previous researches, Islamic banks are not confined to lend money to households who have serious money-back guarantees but they offer many management services to its clients to support their business and help them cope with market turbulence through special funding tools.

Also, despite the existence of problems of separation of the deposits, Islamic banks have besides found in the crisis an opportunity to justify their practices to gain market share and to introduce themselves to the aid of entrepreneurial activities.

However, wide scope for improvement can be considered in further researches. In particular, IB must continue to change, standardize practices, increase its innovation and clarify the role of the Shari'a. Adapting the legal framework of conventional finance to Islamic finance products should be examined with great attention and strong political commitments must be implemented to allow the emergence of the Islamic finance around the world.

References

[1] Ahmed Einas (1997), "Banques islamiques et sociétés islamiques d'investissement", *Politique africaine* Issue n°66, p. 39-48. (in French)

[2] Akacem, M. and Gilliam, L. (2002), "Principles of Islamic banking: Debt versus equity financing", *Middle East Policy*, 9(1):124-138.

[3] Al-Hawary D., Grais W. and Iqbal Z. (2007), "Diversity in the regulation of Islamic Financial Institutions", *Quarterly Review of Economics and Finance*, 46(5): 778-800.

[4] Anass, B. (2010), "Institutional risk management: Analysis of factors associated with the extent of monitoring and reporting of risk", *The Journal of International Social Research*, 3(10): 77.

[5] Archer, S., Rifaat, A. and Abdel Karim, R. (2009), "Profit sharing investment accounts in Islamic banks: Regulatory problems and possible solutions", *Journal of Banking Regulation*, 10 (4): 300–306.

[6] Archer, S. & T. Ahmed (2003), "Emerging Standards for Islamic Financial Institutions: the Case of the Accounting & Auditing Organization for Islamic financial Institutions", World Bank.

[7] Asyraf Wajdi Dusuki (2008), "Banking for the poor: the role of Islamic banking in microfinance initiatives", *Humanomics*, 24(1): 49–66.

[8] Bagsiraj, M.I. (2009), "Financial and Economic Crisis an Alternative Indian approach", *Radiance Views Weekly*, Vol. 46, No. 38.

[9] Bennett Lynn, (1998), " Combining Social and Financial Intermediation to Reach the Poor: The Necessity and the Dangers", in Kimenyi, Mwangi S., Robert C. Wieland, and J.D.V. Pischke (Editors), *Strategic Issues in Microfinance*, Ahsgate Publishing Ltd., Hants, England.

[10] Bennett, L. and Cuevas, C.E. (1996), «sustainable banking with the poor, Journal of international development», Vol.8, N.2, pp.145-152.

[11] Boudriga, Ablkader, & HASSEN, Majdi (2008), "Impact de Bâle 2 sur le financement de l'entreprise tunisienne", Maison de l'entreprise, 2008.

[12] Boumediene, Aniss and Caby, Jerome, the Stability of Islamic Banks during the Subprime Crisis (December 17, 2009). Available at SSRN: http://ssrn.com/abstract=1524775 or http://dx.doi.org/10.2139/ssrn.1524775

[13] Chapra, M.U. (1985), "Towards a Just Monetary System", JKAU: Islamic Economics, Vol. 2, p. 109-115.

[14] Chong, Beng Soon, Liu M. H. (2009), "Islamic banking: Interest free or interest based?", *Pacific-Basin Finance Journal*, 17(1): 125-144.

[15] Cunningham, A. (2001), "Culture of accounting: what are the real constraints for Islamic finance in Riba-based global economy? ", Moody's Investor Services, Global Credit Research, London, UK.

[16] Dhumale, R. and Sapcanin, A. (1999), "An Application of Islamic Banking Principles to Microfinance", Programme des Nations Unies pour le développement, note technique, New York.

[17] El Quorchi, M. (2005), "la finance islamique est en marche", *Finances et développement*, Vol.42, p.46-49.

[18] Gary, G. and Nicholas, S. S. (2005), "Special Purpose Vehicles and Securitization", Working paper No.11190, National Bureau of Economic Research, Cambridge.

[19] Goaied Mohamed and Seifallah Sassi (2010), "Financial Development and Economic growth in the MENA Region: what about Islamic banking development", Second workshop on Islamic finance, EM Strasbourg Business school, France.

[20] Habib Ahmed (2002), "Financing Microenterprises: An Analytical Study of Islamic Microfinance Institutions", *Islamic Economic Studies*, 9(2): 27-64.

[21] Habib Ahmed (2004), "Frontiers of Islamic Banking: A Synthesis of Social Role and Microfinance", *The European Journal of Management and Public Policy*, 3(1): 120-140.

[22] Hafas Furqani and Ratna Mulyani (2009), "Islamic Banking and Economic Growth: Empirical Evidence from Malaysia", *Journal of Economic Cooperation and Development*, 30(2): 59-74.

[23] Hammond Christophe (2007), "Riba et finance islamique : itinéraire d'un idéal utile", en ligne: http://ribh.tiles. wordpress.com/2007/ 12/riba-et-tinance-islamique-itinerairedun-ideal-utile.pdf

[24] Harzi Adel (2010), "Les banques islamiques à l'heure des exigences réglementaires", First Conférence on Risk Management in Islamic Finance, Paris Dauphine University, January 28, 2010.

[25] Hasan Maher, and Jemma Dridi (2010), "The Effects of the Global Crisis on Islamic and Conventional Banks: A Comparative Study", IMF working paper, No. 10/201.

[26] Hervé, A. et Hélène, B. (2010), "L'impact de la crise sur le rationnement du crédit des PME françaises", cahier de recherche DRM No. 2010-06, Université Paris-Dauphine, France.

[27] Ibrahima, BA. (2006), "PME et institutions financières islamiques", document de travail No.6, Département du Développement des Entreprises et Coopératives, Bureau international du Travail - Genève.

[28] Islamic Financial Services Board (IFSB) (2005), *Capital Adequacy Standards for Institutions Offering Only Islamic Financial Services*, 64 pages.

[29] Khan M.F. (1995), *Essays in Islamic Economics*, Leicester: U.K, The Islamic Foundation.

[30] Makiyan Nezamuddin (2008), "Risk Management and Challenges in Islamic Banks", *Journal of Islamic Economics Banking and Finance*, 4(3): 46-49.

[31] Martens André (2001), "la finance islamique: Fondements théorie et réalité", *L'Actualité économique*, 77(4): 475-498.

[32] Martin Čihák and Heiko Hesse (2008), "Islamic Banks and Financial Stability: An Empirical Analysis", IMF Working paper, No. 08/16.

[33] Masmoudi Farid & Belabed Tarik (2010), "La finance islamique dans le contexte de la crise financière : opportunités et défis", Note de pour capmena, mars 2010. Capmena.

[34] Noor Ahmed Memon (2007), "Islamic banking: present and future challenges", *Journal of Management and Social Sciences*, 3(1): 1-10.

[35] OECD (2009), "L'impact de la crise mondiale sur le financement des PME et de l'entrepreneuriat et les réponses en termes d'actions des pouvoirs publics », Working paper, Centre pour l'entrepreneuriat, les PME et le développement local.

[36] Rifaat Ahmed Abdel Karim (2001), "International Accounting harmonization, banking regulation and Islamic banks", *The International Journal of Accounting*, 36(2): 169-193.

[37] Siddiqi Mohammad Nejatullah (2009), "Current Financial Crisis and Islamic Economics", *Radiance Views Weekly*, Vol. 46, No. 38.

[38] Surzur Jean-Jacques (2008), "Une crise bancaire qui interroge la place et le rôle du système financier", *Analyses et documents économiques*, No. 108-109, pp.42-43.

[39] Warde I. (2006), *Islamic Finance in the Global Economy*, Edinburgh, UK: Edinburgh University Press, 4th edition.

[40] Wilson R. (2009), "Why Islamic Banking Is Successful? Islamic Banks are unscathed despite of Financial Crisis", [Online] Available at http://emtedadtraining.com/en/wp-content/uploads/sites/2/2013/03/Why-Islamic-Banking-Is-Successful.pdf .