

IT BASED USURY FREE FINANCIAL INNOVATIONS

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KEYWORDS: E-Payment, RTGS, ACH, IBAN, NSSSS, BOT, Buyback, PLS, SSSS

ABSTRACT

Despite of development and extension of different ways of financing in financial markets, encompassing Islamic and conventional financing, the mechanism of Electronic Funds Transfer (EFT) of project financing both as borrowed and non-borrowed methods has not been considered at most. Moreover overall IT infrastructures development namely Real Gross Settlement System (RTGS), Automatic Clearing House (ACH), Scripless Security Settlement System (SSSS) and International Bank Account Number (IBAN) for authentication process and the international meta bank network of Single Euro Payment Area (SEPA) and also international integrated banking networks including the Society For Worldwide Interbank Financial Telecommunication (SWIFT) and Interbank Information Transfer Network (Shetab), and other accomplished endeavors are not efficient in absorbing international contributions for project financing through foreign exchange funds in the different countries, satisfactory E-Payment mechanism in informative portal systems for investment projects are weak. In this way, the role of applying E-Payment systems for attracting foreign investment through retail resources mobilization and design of financial instruments with capability of transacting in the secondary markets should be reconsidered. In this paper by having a glance at different types of investment project financing, we introduce a new project financing mechanism based on E-Payment with non-usury financial instruments to complete investment project financing chain in form of Profit and Loss Sharing (PLS) banking.

Shariah compliance of financing instruments in one side and accessibility in absorbing international retail foreign exchange sources in other side are two fundamental discussible items in this paper. In this way by designing a new system of "Non-Usury Scripless Security Settlement System" (NSSSS) with non-usury mechanisms -avoiding legislative (Sharial) circumvention- can provide the two cited goals in designing non-usury financing instruments through IT based non-usury financial innovations which includes of Musharekah and Pazirah certificates in PLS banking, future certificate in Jualah Financing System (JFS) and Non-Usury Bonds (NUB).

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1. INTRODUCTION

Definitely, investment is a reliable method for accelerating economic growth and employment and could be applied as accelerator for speeding up economic growth and development. The foreign investment will be able to improve management systems, exchange of the economic experiments and importation and applying of new technology. Traditional financing methods for importation and injection of capital to investment projects do not suffice with respect to information and communication technology (ICT) progresses and development of international financial networking. The extending number of countries as members of the World Trade Organization (WTO) and tariff reduction policy, freedom of capital inflow and outflow based on capital rate of return are some significant reasons for existing hard competency over the products of the investment project at global markets. In this way, the significant endeavor of the entrepreneurs of the investment projects is to how finance and to reduce mark-up prices of the products and services. The Shariah based financial instruments in investment project financing and the theosophy of usury prohibition for stability and healthy of the financial and other related real economy markets are some main reasons of the enthusiastic attraction of the non-usury financial innovations with known characteristics.³ On the other hand, increasing the volume of transactions obliges to trace financial transactions, the reality of transactions and avoiding from any circumvention, increasing speed, accuracy and decreasing of the mark-up prices and increasing financial efficiency are some main reasons for necessary role of information technology (IT) in Islamic financial markets.

In conventional financing approaches, either local or global, some instruments are used. Namely: local credit facilities, foreign exchange credit facilities, foreign exchange reserve fund, Musharekah bonds, convertible partnership bonds, specific long term investment deposit certificate, securitization and Sukuk for local financing and foreign exchange bonds, foreign resources finance from foreign banks, foreign direct investment, Public-Private partnership (PPP), buyback contracts, financing from international institutions of World Bank and development banks and export credit agencies (ECAs)⁴ are used for foreign financing.

The investment project financing are performed as borrowed method namely: finance, refinance, usance, security and etc. and non-borrowed as civil partnership and direct investment that we are discussing here. Then we are going to introduce some IT based new non-usury financial innovations.

2. BORROWED FINANCING

In the borrowed financing method, the principle and interest of the resources are guaranteed by the government. The borrowed financing encompasses the whole sorts of short term, middle term and long term credit lines in form of finance and refinance loans which are provided by international banks, non-banking financial and monetary institutions, World Bank (WB), development and regional banks namely Islamic Development Bank (IDB) and other financial institutions and even governments. Issuance of the foreign exchange securities and Musharekah bonds are classified in borrowed financing category - in case of government guarantee of both principle and interest. In this method, buyers of bonds are not confronted with any risks and the paying back the principle and interest in this kind of debt based financing is an obligation for the issuer of the bonds (government). The traditional financing methods in Iran are as follows:

2.1 Securities or Musharekah Bonds

In Iran, non-usury financing instruments in form of Musharekah bonds (RLS) has been issued and taken into consideration in 1995 for the first time. Lack of IT based supervision mechanism and lack of its development around the world are some constraints to this kind of financing approach. The Iran's foreign exchange bonds issuance for foreign

³ See:

<http://bidabad.com/doc/pls-business-cycles.pdf> بیدآباد، بیژن، تثبیت ادوار تجاری با بانکداری مشارکت در سود و زیان و اقتصاد اخلاق

⁴ The Development Banks and Export Credit Agencies (ECAs) are private or semi-governmental institutions that are intermediates between government and exporters in export financing and can be as partner in financing, insurance and guarantee of project.

countries, first time returns to the early 2000. Legal prohibition of the government to borrow from banking systems in order to make balance of her budget according to the context of 2002 annual budget law and also looking for diversified financing aim and being present at global financial markets were some reasons for issuance of foreign exchange bonds in Iran.

2.2 Certificate of Deposit (CD)

Certificate of Deposit as public or specific deposits is known as other financing instruments. The financing through CD has been approved by the Central Bank of Iran (CBI) in 2001 to encourage investors to make short term deposit with transaction capability in secondary markets. Undeveloped secondary market with IT based mechanisms and also lack of required cultural and organizational development non-publicity requirements are some main reasons for not forming the secondary markets for this kind of securities. The foreign exchange CD also was considered on the basis of the CBI's back up in 2007 a foreign exchange financing instrument for absorbing the international resources particularly of Iranians resident at foreign countries at the of global financial crisis.

3. NON-BORROWED FINANCING

Non-Borrowed financing includes those foreign resources that principle and interest return and risk of the investment are to be transferred to investors and the government has no commitments against any parties. Acceptance of the whole risks by the investor, non-increasing government commitments, application of new technology, managing improvement are some efficiency characteristics of the non-borrowed financing. Although non-borrowed financing follows the debt market position, but since the financial resource provider has participates with both profit and risk of investment so it is comply with non-usury transactions characteristics and as a result the Islamic countries interested to apply this method to finance the projects.

Generally, different types of non-borrowed financing methods in different Islamic countries are as follows:

3.1 Sukuk

Debt markets is an inseparable part of financial sector but due to Riba (usury) prohibition according to jurisprudence of Islam, the countries who are looking for applying non-usury transactions to meet their financial needs have planned to develop substitute financial instruments for debt market complying with non-usuric transactions criteria. In result, the last recent years, the Islamic debt based bonds namely Sukuk has had significant growth and plenty of them were issued by corporations and governments around the world. Based on AAOIFI standards (2004) over 14 types of Sukuk have been recognized and introduced recently. The most popular types of Sukuk are: Ijarah Sukuk (in assets), Estesna sukuk (in projects), Murabah Sukuk (in ownership cases in debt), Musharekah Sukuk (in trade) and Estesmar Sukuk (in investment). Some of this type of Islamic bonds has been issued in huge volumes by some Islamic countries and organizations namely Malaysia, Bahrain, Dubai, Pakistan, IDB and etc. Marketability of these bonds in the secondary market depends on quality evaluation processes of the assets and existing IT-based and e-payments transacting infrastructure. The Sukuk issuance with marketable capabilities has been considered across stock markets of the Islamic country markets.

The significant point of Sukuk issuance is that in spite of prohibition of usury, in calculating profit the usury mechanism is used and the rate of return of this asset is the same as fixed interest rates of Libor plus risk premium or similar margins that somehow instills usury-doubt into mind.

3.2 The Islamic Zero Coupon Bond

This kind of bonds has not any coupon for paying profit during the investment period from issuance time up to maturity, and the issuance is based on discount mechanism and is popular in Malaysia. Although up to maturity no profit is paid but the rate of return of these securities can be calculated through difference of the par value and discounted price. The Islamic zero coupon security is conducted on the basis of transaction contract (Bai' Contract) and it is transacted on credit then cash with discounting. This transaction is a kind of circumvention and enters to usury realm as some jurists

protest.

3.3 Direct Investment

Direct investment is another project financing method based on foreign exchange resources. In Iran, The Organization for Investment and Economic & Technical Assistancess set up internet based database software which brought the information from the government and private corporations projects proposed to this organization in a separate collection to encourage foreign investors and financiers. Therefore, the foreign financiers or investors can make decision on each project profile through this internet based portal and it is possible to choose any project for financing or participate through them. This endeavor is just informative and e-payment and financing processes through the foreign retail funds are not engaged in. Lack of available financial instruments in convenient processes and marketable bonds transaction mechanism in primary and secondary markets based on information technology are of extant constraints alongside of the projects financing through the foreign exchange resources in Iran.

3.4 Indirect Investment

The different types of indirect investment for investment project financing considering the type of contracts are: buyback, public private partnership (PPP) and civil partnership as follows:

3.4.1 Buyback

In manufacturing projects, finance of construction and equipping processes of enterprises could be conducted through Buyback contracts. That is the buyer of machines and technology prepares required resources through pre-sales of the future goods and services to the equipments producer instead. In buyback contract, the entrepreneur of the projects make an agreement with financiers on pre-sales of produced goods and services instead of refund and will pay back the money in a particular duration with determined prices. This approach due to preventing foreign exchange outflow from country and preserving balance of payment (BOP) position is attractive for the governments.

3.4.2 Public Private Partnership (PPP)

Public Private Partnership (PPP) is an important financing method for infrastructural projects. In this method, the whole processes of: design, construction, financing and operation entirely are considered. The government donates the privilege of the operation of the project to the concessionaire for duration. The concessionaire can d be a corporation or consortiums of corporation. The required guaranty and refund for this kind of financing will be based on the cash flow of the project outcomes. This type of financing entails Limited- Recourse or Non-Recourse rights to the government.

3.4.2 Civil Partnership (Musharekate Madani)

According to the non-usury banking law - approved in 1982- civil partnership is defined as "to merge cash or non-cash capitals that belong to different private or legal entities to get profit jointly complied with the contract". On the other words, Musharekate Madani is a contract that two or more persons who have a bilateral or multilateral agreement join their capitals for running a particular business to gain profit. In this financing bank is as a financier and the entrepreneur is her counterpart, and the partners gain some proportions according to their shares.

4. IT INFRASTRUCTURE REQUIREMENTS

The payment process is a significant pillar for initiating and fulfillment of all commercial transactions among buyers and sellers. Development and extending different types of e-commerce -particularly business to consumer (B2C) and business to business (B2B)- is appropriate infrastructure for transactions of different asset based securities (ABS) either as Shariah complied or conventional transactions. So it is necessary to review required information technology infrastructure before spelling out IT based non-usury financial instruments transaction mechanisms in investment project financing. Generally, prerequisites and infrastructures for initiating the transactions at the primary and secondary markets are as follows:

4.1 Electronic Fund Transfer (EFT)

4.1.1 Automated Clearing House (ACH)

Automated clearing house (ACH) is a system implemented for retail payment and whole interbank transferring processes in huge volume automatically. Transactions settlements in this system are done by batch at a scheduled time (usually at 24 O'clock). The members' banks can issue direct credit transactions⁵ or direct debit transactions⁶ by submitting a batch file which contains different transactions order to the counterpart bank. In this system the creditor or debtor accounts of the customers are transferred on the basis of International Bank Account Number (IBAN).

4.1.2 Real Gross Settlement System (RTGS)

The real gross settlement system (RTGS) is a system for payment and transferring high and time-based payments. The central banks mostly are the owner of this system. For transferring of money, it isn't compulsory to have an account in destination bank and it is just enough to have an account in remittance bank for funds transferring. The RTGS is a non-cash transferring system.

4.1.3 Scripless Security Settlement System (SSSS)

This system is designed for banks' liquidity management and transacting short term assets as: securities, derivatives like futures and options to provide required liquidity. Adding and saving of the records of the securities owners, transferring the ownership, transacting and repurchasing securities and bonds, authentication of securities owners, issuance of paperless digital securities in an integrated information systems are some of functionalities of this system. Paying and withdrawing funds for transaction of securities are done through RTGS. The banks at most, to prepare required liquidity, sell their bonds to the central bank at the early hours of working time and then repurchase the bonds in case of redundant funds automatically through the RTGS that is hold beside the central bank.

4.2 Authentication Mechanism

4.2.1 International Bank Account Number (IBAN)

IBAN is an identifier that defines a unique specific banking account number over the world. This identifier is compatible with international standard of ISO 13616:2007. IBAN creates equal banking account number identification across the world for simplifying interbank transactions.

4.2.2 Basic Bank Account Number (BBAN)

BBAN is just the same ordinary customer account number. In other words, this identifier is an exclusive account number that specifies a specific account across a unique bank. In applying ACH, it is necessary to transfer the account number of payer and payee across the banks on IBAN. So up to spreading IBAN among the customers, it is not compulsory to know both own and payee account numbers on IBAN basis but they will be able to use the services of this system through BBAN or generating the IBAN through the website of the customer's bank.

4.3 Electronic Funds Transfer (EFT) Experiences

4.3.1 The Society for Worldwide Interbank Financial Telecommunication (SWIFT)

The SWIFT electronic fund transfer in Iranian banks is done in this way that the remitting bank after tracing the bank of beneficiary and her SWIFT number transfers the amount through the subsidiary branch or agent of the bank. In case of lack of subsidiaries or agents banks over the world the transferring process is done through other agents that have subsidiary or a second agent in the beneficiary's bank country. High commission in this case in the beneficiary's bank country and then long duration remittance process are weak points of this kind of electronic fund transfer in Iran. The authentication process would be possible in case of having SWIFT number.

⁵ This is a payment method that the account holder permits the bank to withdraw the corresponding amounts from the owner's accounts in particular times then to credit other specific account in other banks.

⁶ It is a kind of funds transferring that account holder permits the bank to withdraw the considered amounts in particular times from other accounts in different banks and then credit them into the account number of the customer. Performing this conduction depends on the multilateral agreements between debtors and creditors.

4.3.2 Interbank Information Transfer Network

This network is known as Interbank Switch Center and it is called Shetab in Iran. This center has been running since the end of 1991. The card services center connects the whole Iranian banks including government and private banks and even non-bank financial institutions and this network prepares authentication possibility for customers who want to transfer or pay. The card holder of every member bank can utilize e-banking services and products of the other banks and non-banking financial institutions. Hence the whole automatic teller machines (ATM) and the EFTPOS devices of Shetab member banks which connected to this center can offer the services to the customers of the other banks. In addition, it decreases the investment costs and subsequently the required expenditures of banks provide extensive services for customers.

4.3.3 Arab Payments and Securities Settlement Initiative (API)

World Bank in co-operation with Arab Monetary Fund and Regional and International Organizations established the Arab Payments and Securities Settlement Initiative (API). This organization encompasses 22 countries who are members of the International Arab Fund and established with the purpose of evaluating and strengthening of the payment systems among Arab countries to improve soundness, efficiency, integrity and creating long term organizational capacity in the region for supporting development of security settlement and reimbursement systems.

4.3.4 PAYPAL

Paypal is a global and secure payment method known as peer to peer (P2P) system. This kind of global payment possesses the following advantages:

- Merchants pay low fees; individuals pay nothing
- Interest paid on deposits
- Mass (bulk) payments is possible
- Business model: fees + float
- FDIC⁷ pass-through insurance
 - Against bankruptcy of Paypal
 - Different protection for fraud
- Mobile payments support
- Penetration in USD, CAD, GBP, EUR, JPY, AUS
- B2C and B2B support

5. NON-USURY SCRIPLESS SECURITY SETTLEMENT SYSTEM

This system is considered for transaction of Musharekah (partnership) and Pazireh (subscribed) certificates at the Profit and Loss Sharing (PLS) banking system and the other Non-usury financial innovations along with PLS banking namely, Future certificates, Non-usury Bonds and Islamic Securities. The significant difference between NSSSS and SSSS is in securities transaction mechanism. Somehow the transactions and processes of securities settlement at the NSSSS is based on usury-free transactions, while the Scripless Security Settlement System (SSSS) is based on conventional usury transactions mechanism. A model of this system is developing by the Bank Melli Iran titled by Profit and Loss Sharing Banking System and will be operational in near future and is in the stage of computer program coding⁸. Generally the specifications and capabilities of this system are as follows:

- Performing E-payment processes through the Banks' cards of the Shetab network or through reputable global cards namely VISA, Master and American Express (needs necessary agreements and connectivity to the cards ports of the e-payment service providers).
- Multi currency support
- Multi language support
- SWIFT connectivity and connect to other e-payment service providers switch namely PayPal (needs necessary agreements with cards issuer and EFT service providers as well)
- Applying ACH for retail payments and RTGS for bulk payments using IBAN and other integrated

⁷ Federal Deposit Insurance Corporation (FDIC)

⁸ This system is supervised and controlled by the PLS expert committee of Bank Melli Iran and is designing by Sadad Co. For more information see the following links:

<http://89.235.64.138/Fa/FirstPage.aspx>

<http://89.235.64.138/PLSManagerPanel/Loginpage.aspx>

authentication facilities.⁹

- Publicity and designing different e-shelving rack for offering Islamic securities
- Buyer and seller queues and offered prices monitoring
- To dispose the auction and doing final transaction of Non-usury bonds based on competitive prices
- Automatic refund and pay back after quitting the auction at the end of auction schedule or before auction and admitting the offered upward prices for retake part for the new auction.
- Compatible with the other financial systems and subsystems and integrity with core banking.
- Accounting operations, input data records, customer desktop monitoring, record and processes tracing, accounting and auditing.
- Management reports and decision support system (DSS) for different managements, experts and customers levels and request by a parametric report generator system.
- Comparison of different business opportunities in view of expected profit, maturity date, capability and capacity of the entrepreneurs and other effective specifications of risks and returns.
- Systematic risk management including liquidity, credit, operation and market risk
- Designing bulk and basket for defined financial certificates.
- Analytical and fundamental analysis features and financial engineering.
- Coding of the certificates based on international standards.

Transactions in this system are based on some of non-usury financial innovations as follows:

5.1 IT Based Non-Usury Financial Innovations in NSSSS

The IT role in fulfillment of non-usury financial innovations is inevitable¹⁰. On the other words, IT infrastructures in different dimensions namely ACH, RTGS, NSSSS and IBAN give rise to development of the markets of this kind for Islamic financial innovations. Generally the designed Non-usury financial innovations are divided into three categories as follows:

5.1.1 Project Financing through Musharekah (Partnership) Certificates:

The Profit and Loss Sharing (PLS) financial instruments titled by Musharekah certificate and also the IT-based prepared opportunities by IT subsystem namely NSSSS anywhere and anytime will absorb foreign capital for investing on different fixed time Musharakah projects. Value added creation, encouragement of creativity and innovation for running new projects, investment return based on real economy sector, no need to primary accomplished assets for issuance of the Musharekah certificates, anonym Musharrekah certificates and transacting capability across the world and marketability of this kind of certificates before accomplishing the investment project are some specifications of this new financial innovation. ICT and web based services implementation for the purpose of tracing digital inflows and outflows of cash in form of multi-currencies funds for issuance of foreign exchange or local currency based Musharekah certificates and coordination with e-payment service providers all over the world are some solutions for going out from existing challenges of the project financing in both traditional usury-free and usury-bearing financing methods. By applying the new IT-based systems namely, the investors (depositors) authentication and recognition system amid them IBAN and designing of e-payment services as same capabilities as PayPal in the internet based secondary market portal in PLS banking can afford to apply and absorb retail foreign exchange funds across the world for the purpose of the introduced projects financing. This solution makes customer free from having a local account number weather in the operator bank or the whole set of banks that are members of the Shetab network. In case of physical transferring of foreign exchange funds it is possible to employ the ACH or RTGS¹¹ services as well. Although in short term due to imposition of global sanctions against Iran it is not possible to have necessary agreements with e-payment service providers namely PayPal so in this respect the IT based environment can be prepared by the defined mechanism and it is possible to participate in investment projects all over the world. Transacting of the securities through NSSSS is based on

⁹ The integrated authentication system is compiling at the Organization and Skills Department of Bank Melli Iran under supervision of the PLS banking experts.

¹⁰ For more information see:

- Bidabad, Bijan and Mahmoud Allahyarifard, "Implementing IT to fulfill the profit and loss sharing mechanism", Islamic Finance News (IFN) Journals, Vol. 3, Issue 3, 6th February 2006. <http://bidabad.com/doc/summery-pls-it-1.pdf>
- Bidabad, Bijan and Mahmoud Allahyarifard, "IT role in fulfillment of profit and loss sharing", Proceeding of The 3rd International Islamic Banking and Finance Conference, Monash University, Kuala Lumpur, Malaysia, 16th and 17th November 2005. <http://www.bidabad.com/doc/english-pls-5.pdf>

¹¹ For more information see: Bidabad, Bijan and Mahmoud Allahyarifard, "IT Role in Fulfillment of PLS Mechanism (Islamic Banking)", New Economics and Trade Journal, No 3, Winter 2005, pp 1-37. <http://bidabad.com/doc/english-pls-5.pdf>
<http://prd.moc.gov.ir/jnec/farsi/3rd/Article2.pdf>

competitive price and securities owners (suppliers) and buyers (demanders) can offer competitive prices until auction time. The par value of this certificate is equal to the first time offer in the primary market and up to maturity there will not be any payment as predetermined profit to the certificates' holders.

5.1.2 Project Financing through Pazireh (subscribed) certificates in PLS Banking

This method is entirely similar to Musharekah certificate procedure but a substantial difference is in difference between Musharekah certificates and Pazireh (subscribed) certificates specifications. Pazireh certificates are issued for endless manufacturing projects and at the end of the construction stage Pazireh certificate holder become shareholder of the entrepreneur's corporation. Whereas Musharekah certificates is settled at the end of accomplishment or construction stage¹².

5.1.3 Future Certificates

Future certificate is another new IT-based financial innovation for financing required working capital of manufacturing units. It can be introduced as one of Islamic derivatives. The processes and executive operations of the future certificate is compiling at the Research and Development Department of Bank Melli Iran. By this financing instrument the required working capital for manufacturing units will be provided under supervision of the bank through making a financial relation between entrepreneur (producer) and buyer of certificate. The future certificate will be issued for goods (to be produced) as the same amount of required working capital just for one production period in favor of buyer and in charge of the entrepreneur (producer) through NSSSS. The certificates owner looks forward to maturity and get the cited goods otherwise may sell the certificate in IT-based secondary market (NSSSS) on competitive price.¹³

5.1.4 Non-Usury Bonds (NUB)

Usury doubt of bonds in conventional banking is the main reason for less development of Islamic financial markets. By this new financial innovation, Non-usury Bonds are designed and issued. NUB's will be issued in par value and can be transacted through NSSSS. The market transaction of these bonds is based on auction which is done by implementing the IT based system. Riba prohibition is substantial reason for eliminating conventional treasury bonds from monetary policy instruments in Iran. IT role with defined mechanisms in the Non-usury scripless securities settlement system (NSSSS) and with respect to defined transacting mechanism would revive treasury bonds with non-usury specification and be known as significant monetary instruments improvement.¹⁴

¹²For more information see:

- بیدآباد، بیژن و ژینا آقابگی، مهستی نعیمی، آذرنگ امیراستوار، سعید صالحیان، سعید نفیسی زیده سرایی، علیرضا مهدیزاده چله‌بری، بیژن حسین‌پور، سعید شیخانی، محمود الهیاری فرد، محمد صفایی‌پور، نادیا خلیلی ولائی. طرح تفصیلی بانکداری مشارکت در سود و زیان (PLS)، اداره تحقیقات و برنامه‌ریزی، بانک ملی ایران، ۱۳۸۷.
- بیدآباد، بیژن و محمد صفائی پور، چارچوب بازار الکترونیکی معاملات گواهی مشارکت/پذیره در قالب طرح مشارکت در سود و زیان (PLS). پنجمین همایش تجارت الکترونیکی، ۴-۳ آذر ۱۳۸۷، وزارت بازرگانی، تهران.
- <http://www.ecommerce.gov.ir/EArchive/EArchiveF/Item.asp?ParentID=43&ItemID=182>
- بیژن بیدآباد و محمود الهیاری فرد، حسابداری مشارکت در سود و زیان (PLS).
- بیژن بیدآباد و محمود الهیاری فرد، مدیریت دارائی و بدهی (ALM) در بانکداری اسلامی. <http://www.bidabad.com/doc/alm-farsi.pdf>
- بیدآباد، بیژن و محمود الهیاری فرد، سازوکار عملیاتی بانکداری مشارکت در سود و زیان (PLS) معرفی ابزارهای مالی گواهی مشارکت و گواهی پذیره با کارائی بین المللی، ارائه شده به دومین همایش خدمات بانکی و صادرات، ۲۷ مهر ۱۳۸۷، بانک توسعه صادرات ایران، تهران، ایران
- <http://bidabad.com/doc/PLS-Banking-7.pdf>
- <http://bidabad.com/doc/PLS-Banking-Export-Deveopment-Bank-2.ppt>
- بیدآباد، بیژن و محمود الهیاری فرد، فناوری اطلاعات و ارتباطات در تحقق سازوکار مشارکت در سود و زیان (PLS) (بانکداری اسلامی)، فصلنامه علمی- پژوهشی اقتصاد و تجارت نوین، سال اول، شماره سوم، زمستان ۱۳۸۴، صفحات ۳۷-۱

<http://www.bidabad.com/doc/pls-it-2>

<http://prd.moc.gov.ir/jnec/farsi/3rd/Article2.pdf>

http://bidabad.com/doc/PLs_it-fa.pdf

¹³ Bidabad, Bijan, Mahmoud Allahyarifard, "Future Certificate". Forthcoming.

¹⁴ Bidabad, Bijan, Mahmoud Allahyarifard, Mahnaz Rabiei, "Non-Usury Bonds", Forthcoming.

6. CONCLUSIONS AND PLICY RECOMMENDATIONS

Despite of throughout extending Islamic financial markets particularly in Malaysia the current transacting practices and mechanisms of Islamic financing instruments are protested by some jurists and Islamic economists. By scrutinizing transacting process of Islamic securities, usury signs can be found in them easily. Amid the investment project financing procedures whatever compatible with non-usury transactions are known as non-borrowed financing approach. For participating of financier in driven risk and return of investment and for applying the debt equity mobilization beyond the borders due to scarcity of this significant investment factor, development of IT infrastructures with giving priority to the theosophy of usury prohibition is inevitable. Hence, actualizing of transactions while avoiding from any circumvention and also extending and development of Islamic financial markets entail implementing IT-based infrastructures, which encompasses ACH, RTGS, NSSSS and IBAN and also development of Meta banks, integrated and global networks namely SEPA, SWIFT, SHETAB and accomplished endeavors for absorbing global participations to project financing through foreign exchange funds. Shariah compliance-based transactions of financing instruments on one hand and accessibility to global retail foreign exchange funds on another hand will be two fundamental factors in the recent Islamic financial instruments innovations. In this way by designing new system of NSSSS with non-usury transactions mechanism it is possible to avoid from any circumventions by implementing new It-based non-usury financial innovations including Musharekah and Pazireh Certificates in PLS banking, Future Certificates in Jualeh Financing System (JFS) and Non-Usury Bonds (NUB) for liquidity financing and monetary policies.

7. REFERENCES

- بیدآباد، بیژن و محمود الهیاری فرد، مهناز ربیعی، "اوراق قرضه اسلامی"، پیشنویس.
- بیدآباد، بیژن و محمود الهیاری فرد، "گواهی آتی"، پیشنویس.
- بیدآباد، بیژن و ژینا آقاییگی، مهستی نعیمی، آذرننگ امیراستوار، سعید صالحیان، سعید نفیسی زیده سرایی، علیرضا مهدیزاده چله‌بری، حجت‌الله قاسمی صیقل سرایی، بیژن حسین‌پور، سعید شیخانی، محمود الهیاری فرد، محمد صفایی‌پور، نادیا خلیلی ولائی. طرح تفصیلی بانکداری مشارکت در سود و زیان (PLS)، اداره تحقیقات و برنامه‌ریزی، بانک ملی ایران، ۱۳۸۷.
- بیدآباد، بیژن و محمد صفائی پور، چارچوب بازار الکترونیکی معاملات گواهی مشارکت/پذیره در قالب طرح مشارکت در سود و زیان (PLS). پنجمین همایش تجارت الکترونیکی، ۴-۳ آذر ۱۳۸۷، وزارت بازرگانی، تهران.
<http://www.ecommerce.gov.ir/EArchive/EArchiveF/Item.asp?ParentID=43&ItemID=182>
- بیژن بیدآباد و محمود الهیاری فرد، حسابداری مشارکت در سود و زیان (PLS).
- بیژن بیدآباد و محمود الهیاری فرد، مدیریت دارائی و بدهی (ALM) در بانکداری اسلامی.
<http://www.bidabad.com/doc/alm-farsi.pdf>
- بیدآباد، بیژن و محمود الهیاری فرد، سازوکار عملیاتی بانکداری مشارکت در سود و زیان (PLS) معرفی ابزارهای مالی گواهی مشارکت و گواهی پذیره با کارائی بین المللی، ارائه شده به دومین همایش خدمات بانکی و صادرات، ۲۷ مهر ۱۳۸۷، بانک توسعه صادرات ایران، تهران، ایران.
<http://bidabad.com/doc/PLS-Banking-7.pdf>
<http://bidabad.com/doc/PLS-Banking-Export-Deveopment-Bank-2.ppt>
- بیدآباد، بیژن و محمود الهیاری فرد. فناوری اطلاعات و ارتباطات در تحقق سازوکار مشارکت در سود و زیان (PLS) (بانکداری اسلامی)، فصلنامه علمی- پژوهشی اقتصاد و تجارت نوین، سال اول، شماره سوم، زمستان ۱۳۸۴، ص ۳۷-۱.
<http://prd.moc.gov.ir/jnec/farsi/3rd/Article2.pdf>
http://bidabad.com/doc/Pls_it-fa.pdf
- بیدآباد، بیژن، تثبیت ادوار تجاری با بانکداری مشارکت در سود و زیان و اقتصاد اخلاق
<http://bidabad.com/doc/pls-business-cycles.pdf>
- Bidabad, Bijan and Mahmoud Allahyarifard, "Implementing IT to fulfill the profit and loss sharing mechanism", Islamic Finance News (IFN) Journals, Vol. 3, Issue 3, 6th February 2006. <http://bidabad.com/doc/summery-pls-it-1.pdf>
- Bidabad, Bijan and Mahmoud Allahyarifard, "IT role in fulfillment of profit and loss sharing", Proceeding of The 3rd International Islamic Banking and Finance Conference, Monash University, Kuala Lumpur, Malaysia, 16th and 17th November 2005. <http://www.bidabad.com/doc/english-pls-5.pdf>
- Bidabad, Bijan and Mahmoud Allahyarifard, Assets and Liabilities Management in Islamic Banking. Paper prepared to be presented at the 3rd International Conference on Islamic banking and Finance, Karachi, Pakistan, 24 -25 March, 2008. <http://www.bidabad.com/doc/alm-english.pdf>
- <http://prd.moc.gov.ir/jnec/farsi/3rd/Article2.pdf>