

No ISBN: 978-602-1154-24-1



FACULTY OF ECONOMICS
UNISSULA - SEMARANG



FACULTY OF ISLAMIC AND BUSINESS
UIN SUNAN KALIJAGA - YOGYAKARTA



INSTITUTE OF ISLAMIC BANKING AND FINANCE
IIUM - MALAYSIA

PROCEEDING

3rd
AICIF 2015

ASEAN International Conference on Islamic Finance

SEMARANG, NOVEMBER 18–19TH 2015

**The Role of Zakah and
Islamic Financial Institution
into Poverty Alleviation and
Economics Security**



WORLD CLASS ISLAMIC UNIVERSITY
UNISSULA
SULTAN AGUNG ISLAMIC UNIVERSITY

No ISBN: 978-602-1154-24-1



FACULTY OF ECONOMICS
UNISSULA - SEMARANG



FACULTY OF ISLAMIC AND BUSINESS
UIN SUNAN KALIJAGA - YOGYAKARTA



INSTITUTE OF ISLAMIC BANKING AND FINANCE
IIUM - MALAYSIA

3rd **AICIF** 2015 *ASEAN International Conference on Islamic Finance*

Editors:

1. **Olivia Fachrunnisa, Ph.D** (UNISSULA, Semarang)
2. **Dr. Khaliq Ahmad bin Mohd Israil** (IIUM, Malaysia)
3. **Dr. Ibnu Qizam** (UIN, Yogyakarta)

Layout:

Harjanto

Publisher:

Faculty of Economics Unissula

Printing by:

Bintang Communication
Jl. Tri Lomba Juang No.7 Semarang
email: bintang.comm@gmail.com

Editor Address

Faculty of Economics Unissula
Jl. Raya Kaligawe Km.4 Semarang Central Java
phone: 024 6583584
website: aicif2015.unissula.ac.id

FOREWORD

Assalamualaykum. Wr. Wb

As a steering committee of 3rd ASEAN INTERNATIONAL CONFERENCE ON ISLAMIC FINANCE (AICIF-2015), firstly I would like to say “Thank You Very Much” to all parties for their enormous effort toward the detailed arrangement for hosting this conference.

The 3rd AICIF is organized by Faculty of Economics - Sultan Agung Islamic University (UNISSULA), Faculty of Islamic Economics and Business - State Islamic University Sunan Kalijaga Yogyakarta (UIN Yogyakarta), and Institute of Islamic Banking and Finance – International Islamic University Malaysia.

The conference is aimed to discuss “Role of Zakah and Islamic Financial Institution into Poverty Alleviation and Economics Security”. Islamic financial institution, such as Islamic banking, Islamic unit trust, Islamic insurance, etc.. has growth very fast for last decade. They become important part relating to the efforts improving the quality of life of the society as well as relieving the society from the riba trap. In the context of recent economy, the Islamic financial institutions as economy pillar continues to challenge effort of poverty alleviation.

Conference aims to bring together researchers, scientists, and practitioners to share their experiences, new ideas and research results in all aspects of the main conference topics.

Furthermore, I would like to extend my gratitude to authors who submitted their papers to AICIF 2015 conference and also reviewers for their contribution and effort to excellent conference proceeding.

Finally, for all of you, welcome to AICIF 2015. I hope you will enjoy the conference and have a nice time during your stay in Semarang Indonesia.

Wassalamualaykum. Wr. Wb

Regards,
Olivia Fachrunnisa, PhD
3rd AICIF 2015 Steering Committee ,
Dean
Faculty of Economics
Sultan Agung Islamic University
Indonesia.

TABLE OF CONTENT

EDITORS	i
FOREWORD	ii
TABLE OF CONTENT	iii
Key Factors Affecting Credit Risk In Indonesian Islamic Banking Yono Haryono Noraini Mohd. Ariffin Mustapha Hamat	1
Efficiency Of The Banking Sector In Malaysia Fekri Ali Shawtari Mohamed Ariff	2
The Role Of Relational Capital In Increasing The Collection And Distribution Of Zakah To Eradicate Poverty In Central Java Heru Sulistyono	3
Creating Sustainable Competitive Advantages And Improving Salesperson Performance Through Intelligence, Emotional, And Spiritual Quotients And Selling Ability Of Smes In Central Java Province Asyhari Sri Hindah Pudjihastuti Dian Marhaeni Kurdaningsih	4
Woman's Portrait in the Chain of Poverty: Looking at Early Marriage from Gender and Sexuality Perspectives Inayah Rohmaniyah	5
Angels: Islamic Bank Of Health Maya Indriastuti Luluk Muhimatul Ifada	6
Child Labor in Indonesia: Education and Health Consequences Sunaryati	7
Determinants Of The Factors That Cause Abandoned Housing Projects: A Study Of Home Buyers Of Islamic Home Financing In Malaysia Dzuljastri Abdul Razak	8
Corporate Governance And Capital Structure Analysis At Islamic Bank In Indonesia Mutamimah	9

The Effect Of Investment Decision, Funding Decision And Dividend Policy On Corporate Value	10
Dista Amalia Arifah Siti Roifah	
Mobile Payment System Framework Based On Gold As A Measurement Of Value	11
Bedjo Santoso Ahamed Kameel Meera Salina Hj. Kasim Khaliq Ahmad	
Corporate Financing Behaviour Of Shariah Compliant E50 Smes. A Panel Data Approach Of GMM	12
Razali Haron	
Crude Palm Oil Market Volatility: Pre And Post Crisis Periods Evidence From Garch	13
Razali Haron Salami Mansurat Ayojimi	
Legal And Regulatory Framework Of Islamic Banking In Libya - Regulatory Authority, Licensing Of Islamic Bank, Shariah Governance And Dispute Resolution	14
Zainab Belal Rusni Hassan	
Developing a Comprehensive Performance Measurement System for Waqf Institutions	15
Nazrul Hazizi Noordin Siti Nurah Haron Salina Kassim	
Improving Financial Education To The Poor At The Bottom - Of Pyramid: The Role Of Social Finance Vis A Vis Financial Institutions	16
Laily Dwi Arsyianti Salina Kassim	
Regulatory Framework Of Islamic Banking In Afghanistan: A Cursory Overview	17
Mohsen Abduljamil Khan Rusni Hassan	

Efektivitas Transmisi Kebijakan Moneter Syariah Jalur Pembiayaan	18
Rizqi Umar Muh. Ghafur Wibowo Abdul Qoyum	
The Environmental Development Model For Poverty Eradication Through Corporate Social Responsibility (CSR) Program	19
Abdul Hakim	
The Role of Bank as Waqf Institution to Promote Indonesian Agricultural Sector	20
Faaza Fakhrunnas	
The Analysis Of Profit Equalization Reserve (PER) In Income Smoothing Of Islamic Banking	21
Prima Shofiani Arief Bachtiar	
The Analysis Of Determinants Selected Corporate Governance Attributes And Company Attributes On Financial Reporting Timeliness In Indonesia (Evidence From Sharia Security List The Period Of 2009-2013)	22
Ifa Luthfiana Iwan Budiyo Nyata Nugraha	
The potential role of Social Impact Bond (SIB) as a financial tool that can help address the issues of poverty and socio-economic security	23
Syed Marwan Mujahid	
Zakat Productive: Transforming Mustahiq To Muzakki	24
Musviyanti Fibriyani Nur Khairin	
The Ways To Increase Shareholders Wealth In Indonesia Sharia Stock Index	25
Naqiyyah Nunung Ghoniyah	
Accountability Of Fund Management In Mosques, Kalimantan Timur, Indonesia	26
Yunita Fitria Ahmad Zamri Osman Zaini Zainol	

Intellectual Capital And Performance Of Islamic Banks	27
Hendri Setyawan Tri Dewi Jayanthi	
Risk Management And Management Accounting Parctice Of BPRS In East Java	28
Ulfi Kartika Oktaviana	
Using ZIS (Zakat Infaq Shodaqoh) Institution to Expand Access to Renewable Energy Services In Indonesia	29
Aji Purba Trapsila	
Collabrate Farmer Association Based Production House and Baitul Maal Wat Tamwil : Increasing Farmer Productivity Through Optimalization ZIS Funding and Sharia Finance Product by Farmer (Walfare Farmer) CardScheme	30
Rifaldi Majid Evita Meilani	
Workplace Spirituality and Employee Engagement for Islamic Financial Institution: A Conceptual Model	31
Olivia Fachrunnisa	
Transformation Of Charities By Islamic Social Movements In Yogyakarta, 1912-1931: A History Of Islamic Wealth Management	32
Ghifari Yuristiadhi	
Customer Interaction Management Capabilities And Market Intelligence Quality For New Product Performance	33
Tatiek Nurhayati Hendar	
Assessing The Appropriateness And Adequacy Of The Provision For Housing Under The Haddul-Kifayah For Asnaf Faqr And Asnaf Miskin	34
Khairuddin Abdul Rashid Sharina Farihah Hasan Azila Ahmad Sarkawi	
An Overview Of Corporate Governance Practices Of Selected Islamic Banks: Case Of Rhb Islamic Bank, Masraf Al Rayan And European Islamic Investment Bank	35
Zainab Belal Lawhaishy Mustapha Hamat	

Asnaf Of Zakat: A Comparison Between Zakat Regulations In Wilayah Persekutuan And Selangor Darul Ehsan	36
Aznan Hasan Nurun Nadia Binti Mohamad	
Review of the Theory and Practice of Islamic Banking in Indonesia	37
Ibnu Haitam	
Zakatable Items: A Comparison of Definition between Syeikh Yusuf al-Qardawi and States Enactments in Malaysia	38
Aznan Hasan Raja Madihah Binti Raja Alias	
Shariah Committee Composition In Malaysian Islamic Financial Institutions: Post Implementation of The Shariah Governance Framework 2010 And Islamic Financial Services Act 2013	39
Muhammad Issyam b. Itam@Ismail Rusnibt. Hassan	
Interpretation Of Integrated Zakat And Tax: Review Of Planned Behavior Theory	40
Agus Setiaway Fibriyani Nur Khairin	
Financial Consumer Protection: An Exploratory Study On Islamic Financial Services Act 2013 (IFSA), Bnm Regulations And Other Relevant Statutes	41
Norzarina Nor azman Sabarina Abu Bakar Solara Hunud Abia Kadouf Rusnibt. Hassan Muhammdlssyam bin Itam@Ismail	
Zakat Houses For Asnaf Faqr And Miskin: Are Houses Appropriate And Adequate?	42
Khairuddin Abdul Rashid Azila Ahmad Sarkawi Sharina Farihah Hasan Srazali Aripin	
[Re] Defining Mudharabah Financing	43
Musviyanti Salmah Pattisahusiwa	

Analysis Influence Of Difference Perception Between Shari'a Banking With Consumer Perception Towards Customer's Purchase Intension Shari'a Banking in Semarang	44
Sri Rahayu Tri Astuti	
Marketing at the Bottom of Pyramid: Cultural Ethnic Linkage to Islamic Microfinance Sales Promotion Scheme	45
Permata Wulandari Salina Hj. Kassim Liyu Adikasari Sulung Niken Iwani Surya Putri	
Zakat As Social Function Of Shariah Banking Related To SMEs Empowerment For Poverty Alleviation	46
Mispiyanti Junaidi	
Holistic View On Malaysian Islamic Interbank Money Market: A Critical Assessment	47
Buerhan Saiti	
The Role Of Islamic Work Ethic, Spiritual Leadership And Organizational Culture Toward Attitude On Change With Organizational Commitment And Job Involvement As Mediator On Bank Pembiayaan Rakyat Syari'ah (BPRS) Indonesia	48
Haerudin Bedjo Santoso	
Implementation of Good Corporate Governance In Indonesian Islamic Banking	49
Ro'fah Setyowati Bedjo Santoso	
Ascertaining Transparency And Accountability In The Practice Of Assessment Of Claims For Loss And Damage In Contractor's All Risks (CAR) Takaful	50
Puteri Nur Farah Naadia Bt Mohd Fauzi Khairuddin Abd. Rashid	
Market Reaction Toward Default Notice Of Islamic Bonds In Indonesia	51
Wuryanti Kuntjoro Happy Sista Devy	
The Role Of Religiosity And Manifest Needs To Increase The Productivity Of Human Resources	52
Arizqi Heru Sulistyono	

Islamic View On The Gold As Money	53
Bedjo Santoso Salina Hj. Kasim Mustofa Omar	
The Prospects Of Islamic Banking In Higher Distance Education	54
In Baskara Rini Febrianti Nadia Sri Damajanti	
Entrusting Zakah (Alms) Administration To The Government: A Review Of Historical Study And Shari'ah Perspective	55
Abdulsoma Thoarlim Mursalin Maggangka Mohamamed Muneer'deen Olodo al Shafi'i	
Protecting Zakat And Waqaf Assets Through Takaful	56
Puteri Nur Farah Naadia Mohd Fauzi Khairuddin Abd. Rashid Azila Ahmad Sharkawi Sharina Farihah Hasan Srazali Aripin	
Cooperative Takaful as a New Operational Model: A Conceptual Study	57
Azman bin Mohd Noor Olorogun, L.A	
Perceived Fairness in Islamic Home Financing: Selection between BBA and MM	58
Mohamed Imtiyaz Salina Kassim	
Ict Creative Industry Development : Sinergized Approach	59
Mutamimah Mustaghfirin Mustafa	
The Effect Of Inflation Rate, Liquidity Ratio, And Interest Rate On Investors Reaction With Share Investment Risk As Intervening Variable (Empirical Studies On The Jakarta Islamic Index)	60
Yonimah Nurul Husna Imam Setijawan	

Analyzing The Effect Of Debt Level And Book Tax Differences On Persistent Earnings (Empirical Study on Manufacturing Company listed on the Indonesia Stock Exchange in the period of 2011-2013)	61
Guntur Prasetya Lulu M. Ifada	
The Effect Of Soundness Of Banks Use Risk Based Banking Rating Method On The Financial Performance Of Islamic Banks	62
Shintya Dewi Adi Putri	
Organizing Optimization Of Social Insurance Agency (BPJS) Based On Public Satisfaction In Central Java	63
Alifah Ratnawati Yusriyati Nur Farid Noor Kholis	
Effect Of Green Supply Chain Management Practices On Supply Chain Performance And Competitive Advantage	64
Osmad Muthaher Sri Dewi Wahyundaru	
Testing The Effect Of TQM On The Islamic Microfinance Institutions Performance Using Partial Least Squares Approach	65
Hamzah Abdul Rahman Abdo Ali Homaid Mohd Sobri Mina	
The Perception And Interest Of Teachers On Islamic Bank	66
Any Meilani Isnina Wahyuning Sapta Utami	
Implementing Corporate Social Responsibility (CSR) Program Through Zakat Model	67
Damanhur Umarudin Usman	
Improving Competitive Advantage Of Small And Medium Enterprises Through Green Competence And Green Image	68
Sri Ayuni Abdul Hakim Agus Wachyutomo Heru Sulistyono	
Allocation Fiscal Balance Transfers Local Government From The Central Government To The Prosperity For Ummah	69
Khoirul Fuad	

Grand Theory Model Of Strategic Quality: Strategic Asset Approach	70
Widodo	
Customer Loyalty Based On Islamic Service Quality	71
Moch. Zulfa Agus Sobari	
A Study on The Human Resource and Knowledge Management of Islamic Banking in Indonesia	72
Tri Wikaningrum Mutamimah	
Islamic Bank Laboratory Strengthening Toward Islamic Rural Banking	73
Idah Zuhroh Dwi Susilowati Nazaruddin Malik Eris Tri Kurniawati	
The Influence Of Corporate Social Responsibility Toward Financial Performance	74
Oktavia Indriyani ProvitaWijayanti	
The Influence Of Islamic Leadership Style, Role Conflict, Role Ambiguity Of Auditors Turnover Intention With Organization Commitment As An Intervening Variable	75
Devi Permatasari	
Determinant Of Quality Audit For The Corruption's Prevention On The Government Audit Institute In Central Java, Indonesia	76
Provita Wijayanti Rustam Hanafi	
Coopetition, Cluster Externalities, and Company Performances: Formation for Competitiveness of Wood and Rattan Furniture Industry	77
Sri Hartono Agus Sobari	
The Determinants Of Wakif Preferences Toward Money-Cash Waqf	78
Jauhar Faradis	
Default risk on Islamic Banking and Conventional Banking in Indonesia	79
Ibnu Qizam Aris Munandar Abdul Qoyum	

Strategic Human Resources Management In Indonesian Islamic Banking	80
Ruspita Rani Pertiwi	
Effect Of Sukuk Price, Rating Sukuk, Sukuk Yield, Bank Indonesia Certificates Sharia and Gross Domestic Product Against The Demand Of Corporate Sukuk On Capital Market In Indonesia	81
Sunarsih Akhmad Syaifudin	
The Model of Poverty Alleviation by Development ZISWAF Funds Through Community-Based	82
Lailatis Syarifah Rudi	
The Management of Incorporated Wealth of Divorced Couple in Indonesia and Malaysia	83
Ahmad Bunyan Sahib	
Zakah Fund Distribution Model Trough Takaful Institution for The Welfare of The Poor Farmer	84
Misnen Ardiansyah Intan Puspitasari Neneng Ela Fauziyyah Annisa Nur Salam	
Persistent Analysis for Conventional and Sharia Mutual Funds in a Capital Market	85
M. Kurnia Rahman Abadi	

MOBILE PAYMENT SYSTEM FRAMEWORK BASED ON GOLD AS A MEASUREMENT OF VALUE

BedjoSantoso^a, ^b AhamedKameelMeera ^c Salina Hj. Kasim^d **Khalid Ahmad (Waiting Confirmation)**

^a *Islamic Banking and Finance Ph.D Student and Lecturer at Economics and Managements Faculty of Islamic University Sultan Agung (UNISSULA), Semarang -50112, Indonesia*

^b *Professor of Kulliyah of Economics and Management Sciences, IIUM-Malaysia*

^c *Associate Professor of Kulliyah of Economics and Management Sciences, IIUM-Malaysia*

^d *Professor of Kulliyah of Economics and Management Sciences, IIUM-Malaysia*

Abstract

Gold dinar activists proposed gold dinar as money physically to be implemented in the current monetary system. Some efforts have been done for 3 decades but the result is not significant. Some proponent then come up to propose gold is just as measurement of value combined to infrastructures of ICT, however, the design is not specify yet. Therefore, this paper attempt to explore a framework mobile payment system based on gold as measurement of value a case study in Aceh. Design method is used to develop the model. Data is taken from observation, library, and secondary sources. The research is qualitative employed deductive analysis. Mobile payment system commodity money based on gold as measurement of value is the best way to implement gold as money in the current monetary system initiated by any communities or societies. The proposed model is enabling customers; whether individual or business for conducting any transactions efficiently and easily by using mobile phone. Besides that, the proposed model has several advantages in term of economic, social and Islamic value.

Keywords: *Mobile Payment System, Gold Measurement of value, Stable and just economy*

1. INTRODUCTION

Today, various efforts to develop a gold dinar as a currency have been cultivated through some progress, those are: the implementation of gold currency in some countries or regions such as Kelantan, Jakarta (Depok), Sulu and some parts of Indonesian Sultanate i.e. Cirebon, Ternate and Aceh. Moreover, the efforts appear from a range of seminars, researches, bilateral and multilateral trading by Dr. Mahatir for OIC members. However, all of those efforts are seen as fail and do not reach the target. Many researchers and activists such as Vadillo (2002), Saidi (2006), Mundell (1997), Meera (2013) believe that the gold dinar will be back.

Edawati (2012) outlined some causes of the failure in implementing gold currency in the current monetary system because of the constraints of the Act, infrastructure and weaknesses that exist within the element of the gold dinar itself. The IMF Article IV international-Part 2 (b) (i) is the greatest hindrance. Some proponents such as Meera (2014), Edawati (2013), Hosein (2012), Greco (2009) suggested finding out the possible system of gold to be implemented in the current system. However they didn't mention how to implement it. Therefore, this study is aimed at designing the appropriate system for implementing gold as currency to be adopted in the modern monetary system. We briefly explore some monetary systems such as commodity, representation and fiat money systems.

From the outcome of this discussion, we would derive the appropriate modified model for implementation of the gold currency system.

In this paper, the holistic design for a systemic solution will be explained in detail. First, we determine the objectives of research and research method. Secondly we address literature review in term of the weakness and objection on the current financial system based on fiat money in conjunction to usury (*riba*) and the shortcomings of the existing studies. Thirdly, we prepare a viewpoint of the inability of gold dinar as an ideal monetary system to be implemented in the society. We then propose a possible holistic system that involves ICT and IT along with a digital payment system, concept of credit, credit clearing, and direct credit clearing that will also be deliberated in this paper. Additionally, Aceh is selected as a pilot project to be an example district to implement the proposed model.

2. RESEARCH OBJECTIVES AND METHODS

The research objective of the paper is to design and analyze a framework mobile payment system based on gold as measurement of value. For the purpose, this research used simple criteria decision by employing a deductive analysis. Besides that, IDC approach is used to design the framework. IDC includes intelligence, design and choice (Forgionne, 2000). **Intelligent means** searching for information and conditions related to the problem. **Design means** developing and analyzing possible alternative actions solution. **Choice means** selecting a course of action among those. Data is taken from observation, library, and secondary sources. The research is descriptive qualitative employed deductive analysis.

3. LITERATURE REVIEW

Some criticisms have been addressed by some scholars and researchers about fiat money in terms of its capacity in establishing a just and stable economy. The element of *riba* (usury) is one of the crucial issues of fiat money which is harmful in Islam, and most monetary reform activists agree that usury causes a destructive economic, an unjust social-economy, and is unfair. Edawati (2013) indicated that printing paper money could trigger the first, second, and third '*seigniorage*' level which is the origin of *riba*. This matter has been elaborated in previous chapters in detail.

Briefly, the first level of *seigniorage* issue is related to the acquired profit taken by the country by giving value or price to certain commodities exceeding its intrinsic value (Mundell, 1997). The second level of *seigniorage* issue is related to the acquired profit taken by the bank as it is able to create new money, whereas, the third level of *seigniorage* issue is related to the profiteering by superpower countries that issue credit or loans to under-developed countries. In relation to the fiat money and *riba* issue, Hosein (1997) postulated that paper money does not apply itself with just principles because it promotes speculation, gambling, and deception. According to Edawati (2012), such things are called legalizing theft.

The current monetary system is not in line with Islamic principles; it is the attachment of *riba* in various ranges of its system. In creating money based on thin air is considered a stimulus to *seigniorage*, fractional reserve banking, injustice, *riba*, and instability in economy.

Surely, Islamic finance system today is also bent on this issue. Thus, some scholars pointed that this system could not be evade from *riba* trap.

However, there is not quite enough system proposed to address with the problems. In addition the ideal gold as money system does not appear, instead the existing, ideas, literatures, and arguments to deal with the issue have several drawbacks:

1. Proposing the superiority of the gold dinar to overcome current economic problems. However, this proposal is still in theory, an unfinished concept and is not supported by empirical study. There is a need for a conceptually concrete model based on empirical studies and implemented in certain areas to ascertain the viability and applicability of the model in the current monetary system.
2. Edawati (2012) proposed currency that is reserved with gold to address the impossibility of physical gold implementation. However, she did not mention the payment system mechanisms on gold reserve currency in detail and her proposed model does not explain the mechanism of gold as measurement of a value which is backed up by ICT.
3. In regards to Meera (2013), who proposed the gold as measurement of value, which is backed up by ICT and mobile payment system, there is lack of follow up that elaborates the mechanisms and framework of the said system
4. SantosoBedjo (2014) proposed financial inclusion that is based on a mobile payment system. The framework would be to develop the user to have their saving accounts bankable. However, the theory is still based on fiat, interest, and conventional banking.
5. Abas (2014) stated that the gold dinar could not be implemented as a currency without state interference and he insisted that this inability is due to the absence of the State's needs. The currency issue should be on the authority of the State, not the community. To deal with this issue he proposed integrated *muamalah* model taken over by the authority (*Sulthan*), but the role of gold as money still in physical.
6. James, (2007) offered: "a method and system for commodity based currency for payment of account". He proposed a system for admitting gold or other commodities to circulate as currency where the transaction is made and based on units of gold. The gold is kept and secured in storage at the deposit site for the benefit of users. The payments in gold are affected through a computer system which has data storage, processing programs and gold settlement mechanism. In this model, the clients are connected, whether personally or in businesses, the transaction settlement would be units for gold. The role of global clearing house is an important factor for preparing the information, transaction settlement and securing the transaction in any period. However, the drawback of the system, the role, and function of ICT and mobile phone does not explain clearly on how the support of the transaction and payment works.

A framework is needed to define the combinations of gold measurement of value, digital/mobile payment system, etc. In the next session, we discuss framework design in dealing with the above challenges. We will discuss digital currency system, credit money, credit clearing, credit clearing system, and direct credit clearing. Besides that, the proposed possible alternative model of mobile payment system based on the gold dinar as a

measurement of value will be elaborated by using simple criteria decision making which involves eight criteria and two alternatives namely fiat money, gold based commodity money integrated with mobile digital payment. While eight criteria are *servicing to modern economy, medium exchange, store of value, unit of account, measurement of value function, to deal with money supply to serve economic growth, to deal with Islamic value, and to achieve economic sustainability in stability and just economic*. Finally, Aceh is chosen as a pilot project because of some of its supporting features.

4. DIGITAL CURRENCY SYSTEM

Digital currency is a virtual currency used as a medium of exchange in cyberspace. There are three broad categories of digital currency; indexed based digital currency (IBDC), asset, or commodity based digital currency (CBDC), and community digital currency (CDC). Index based digital currency is digital currency that does not have direct asset backing for its issuance, while asset or commodity based digital currency is backed by valuable assets or commodities for its issuance, and community based digital currency is the digitization of local currency concept, that is, Local Exchange Trading Systems (Evelyn, 2008).

The study will focus on the concept of Commodity Based Digital Currency (CBDC) and Community based because these systems do not need any government authority to be involved with the system and are proficient with just community participation such as cooperatives. CBDC was initially introduced in the Internet payment systems in 1996 with the name *e-gold*. Since 1996, there are many companies issuing similar types of payment tools established in cyberspace.

CBDC is being used in the United States, Australia, Britain, and Japan. While, in the current system M-PESA is widely used in some developing countries in Africa. This system is run by non-bank private companies held by private sectors as well as individuals. The system modifies the concept of receipt, where the receipt were given in exchange of gold deposits, it can be used for exchange of goods and services.. CBDC issues payment means in exchange for gold held in trust by CBDC issuing companies.

Legal tender is dominated by central banks or government. In contrast, CBDC is founded upon the notion of free banking and creation of money that is free from central bank monopoly. These non-bank private companies issue payment tools/digital currency for use in their payment systems. They collect money in exchange for the denomination of intrinsic purchasing power that they supply and charge fees for the services they provide in administration and management of the medium (Evelyn, 2008).

Additionally, the issuance of Community Based Digital Currency must be supported by valuable commodities. Capie (1999) in Evelyn (2008) noted that e-gold is an interesting development in cyberspace retail business, the gold industry, and free banking.

CBDC is a medium of exchange but is not money. According to Mann (1963) in Evelyn (2008), it is a legal concept of money. It does not come in certain denominations. It does not possess intrinsic purchasing power. Moreover, it is not a chattel created by law and it emulates most features. Offering commodity based in future landscapes payment system in form multiple electronic money and digital payment systems. It is a great opportunity for true Islamic Money and economic system in establishing itself within multiple systems, without geographical distinction. In addition, it is also a mean for capital formation, electronic

payments, remittances, and netting for trade purposes. In this study CBDC being adopted by using mobile phone which called mobile payment system which is depicted as follow:

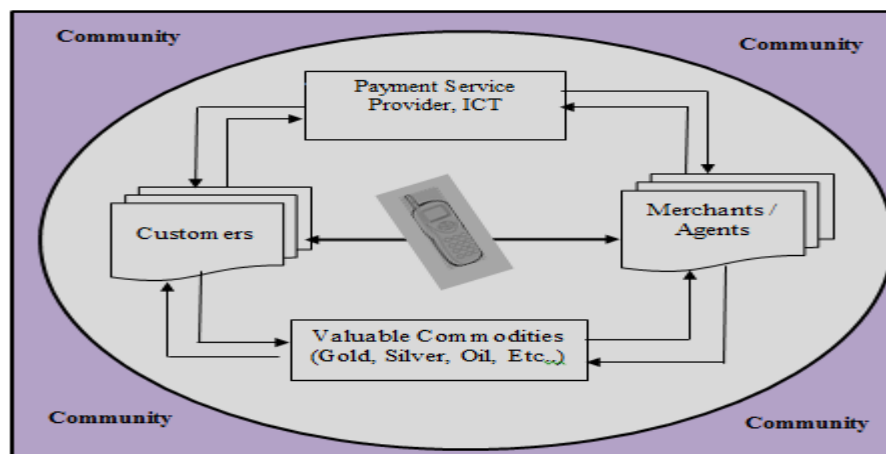


Figure 7.1
Community and Commodity Based Digital Currency (CBDC) by Using Mobile Phone

Concerning to mobile payment system based on commodity particularly gold/silver, Meera (2013) supports the model because mobile and electronic payment systems that use gold and silver as means of value measurement offers some benefits such as; increase velocity of money due to convenience in use, easy payments and remittances, reduce transactions cost, reduce probability of shortage of money that contributes to recession, and reduce occurrence of *riba* in economy. Besides that he pointed out that it is the way to go in our desire to establish a just, stable, progressive and sustainable economic system. The system would not contribute towards inflation, unemployment, recessions, but equitable distribution of wealth and a much more progressive and peaceful society. The model also can be integrated with revival of *waqf* to finance education sector, health sector, public utilities, military etc. That is in line with Lietaer B (2001), who predicted that the future of money should be combined by the availability of information technologies and deal with the stability issues; in order to implement the new system, where it would be universal, in growth and moving towards a democratization of currency.

Instead, the CBDS concept does not oppose legal tender and it can be done by communities, such as cooperatives include the Baitul Mal waTanwil (BMT), Islamic mass organizations as well as NGOs. Such organizations are based on cooperation, mutual assistance and volunteer principles. Government involvement would take a backstage and in turn benefit from the tax. However, the political backing is an important factor for the system to succeed (Meera, 2013).

5. CLEARING SYSTEM ON THE DIGITAL CURRENCY CONCEPT

From the above discussion, it is clear that commodity based digital currency is considered one of the best alternatives in the current system. In this study, we will propose a mechanism as an alternative for trading settlement. In this regard, we provide a brief view regarding clearing system by discussing several terms such as; credit-money, credit clearing, and direct credit clearing and mutual credit clearing system.

Credit money initially took the form of paper banknotes issued independently by various banks, later on; it took the form of bank deposits. In this case, the customers would give the banker his promissory note or mortgage, which also carried a promise to pay gold. The money is free from possibility to fractional reserve banking (Greco, 2000)

In addition, credit money also meets with money supply by expanding credit money that can be achieved at very low cost. Its quantity is limited only by the collective capacity to produce and aggregate the value of goods and services that people wish to exchange. In the view of producers, the credit money is needed to satisfy their needs for goods and services; it is possible to have flexible tools of facilitating exchange to transact among them. The credit money is issued by the underlying assumption of credit money to make possible and can be realized only if credit is created democratically on a proper value basis by the people themselves.

We can summarize that the circulation of gold and silver coins gave way to paper banknotes to be redeemable for gold or silver coins, as well as irredeemable banknotes supported by a lien against various other collateral assets and government obligations.

Clearing is simply the process of accounting that offset debits resulting from purchases against credit sales, when we sell something, your account balance is credited (increased); when you buy something your account balance is debited. Simply put the things you sell pay for the thing you buy. Typically, clearing has also been used by banks to settle claims from checks drawn on one another. Clearing refers to the process by which claims among a group of participants are netted-out or offset against one another. A clearing house defines as an association of commercial banks, brokerage house, central banks or other institution establishments in settling simultaneous claims of its members.

In addition, clearing is the simplest and most efficient mechanism for mediating reciprocal exchange, and represents the next step in the evolution of reciprocal exchange. However, this method is still far from being fully realised, as Hugo Bilgram in 1914 noted that, *“if there were no money, any system of creating sellers and debiting buyers would be fully competent to accomplishing the work performed by money”* (Greco, 2009).

Credit clearing is a circle in which all of the participants agree to give each other a line of credit that should be interest free. Moreover, the ultimate stage in reciprocal exchange is the direct clearing of purchase against sales. Goods and services pay for other goods and services, hence systems that are dependent on money-making and banking becomes obsolete and useless.

Moreover, the clearing house can be applied directly to transactions good and services between buyers and sellers, individual and businesses or bank. In transaction among users i.e. buyers and sellers could be paid by sold commodities. Hence, direct credit clearing makes the use of money or credit instruments are not necessary. Nevertheless, using a common standard for measuring the value of any commodity should be accepted by all parties.

Credit clearing process can be explained as follows: For example, there are four businessmen that mutually own debt, A owes to B, B to C and C to D USD X, and then, it can be settled in simple way. A issues a credit instrument and B is willing to accept A's self-issued credit instrument in payment, and each other companies in turn also willing to accept A's credit instrument. The impact is the debts have been paid with no loans, and no interest was paid. In practice, there is no need for anyone to literally write credit because the companies simply agree to buy and sell among themselves without using conventional money and settle their account using the clearing process (Greco, 2009).

However, by conventional process, A would have to borrow from the bank and pay to B, and so on until everyone has been paid. In addition, interest must be paid for the use of this bank's authorized money. In this case, it is the greatest flaw in the money system, because the money does is not sufficient in circulation to pay interest. Hence, the society and market must be complementing each other to obtain enough money to pay interest. In fact, there is not enough money in circulation at any given time for all borrowers to pay what they owe to the banks. Greco (2009) was named "*a game of musical chairs*" in which there must be some losers. Hence, by this system cooperative society it is impossible to be developed.

Finally, the credit clearing mechanism needs to be described as follows: (1) when a member sells something, their account balance is credited to be increased. (2) When a member buys something, their account balance is debited or decreased. (3) Finally, goods and services pay for other goods and services. (4) Money is just an intermediary instrument that is supposed to facilitate the process. However, money can be dispensed using the remaining balances and may be settled between periodic intervals.

6. THE PROPOSED POSSIBLE ALTERNATIVE MODEL OF MOBILE PAYMENT SYSTEM BASED ON GOLD AS MEASUREMENT OF VALUE

In this section, the best system is proposed by comparing two monetary systems such fiat money and gold based commodity money. Gold is chosen as the best commodity preserve as money. Moreover, two systems are introduced to handle credit clearing and digital or mobile systems. Then, the best method will be selected and proposed as the best system for study. The selected process is described as in Table 7.

From Table 7 below, we derive commodity money based on gold as a measurement of value model. This model is backed-up by mobile/digital payment system, while the transactions settlement among clients is using direct credit clearing method. Basically, the selected model does fulfil the eight criteria namely; *servicing to modern economy, medium exchange, store of value, unit of account, and measurement of value function*. In addition, the selected model is capable: to deal with money supply to serve economic growth, to deal with Islamic value, and to achieve economic sustainability in stability and just economic. Typically, gold-based commodity money does not fulfil these criteria; however, it can be covered by combining with other systems, namely; mobile payment system, gold as measurement of value, and clearing system.

Table 7.1
The Selected Process Best Model

Criteria	Monetary System		System Mechanism	
	Gold based Commodity Money	Fiat Money	Digital / Mobile Payment	Clearing System
Is it the best way to serve the purpose of mediating in the modern economic exchange?	No *)	Yes	Yes	Yes
Can we use as a payment medium to settle account?	No**)	Yes	Yes	Yes
Is it the best way to store value?	Yes	No	Not Involved	Not Involved
Is it the best way to provide financing for capital formation to deal with economic growth?	No ***)	Yes	Yes	Yes
Is it the best way to measure economic value?	Yes	No	Not Involved	Not Involved
Can we define a unit of account that can be used to specify the obligation to price the items of value offered in business	Yes	Yes	Yes	Yes
Is it the best way to deal with Islamic value?	Yes	No	Yes if combined with gold as measurement of value	Not Involved
Is it the best way to achieve economic sustainability such stable and just economic?	Yes	No	Not Involved	Not Involved

*) *Yes, if in form gold as measurement value combined with mobile payment system and direct clearing system.*

***) *Yes, if in form gold as measurement value combined with mobile payment system and direct clearing system*

****) *Yes, if in form gold as measurement value and all commodities are valid to be the business transaction, export-import settlement by using netting system.*

Based on the above Table, the weaknesses of gold as commodity currency are: (i) in serving the purpose of mediating in the modern economic exchange. (ii) in using it as a payment system in settling accounts. (iii) in providing financing for capital formation to deal with economic growth. Meanwhile, fiat money has some weaknesses in term of storing the value, measuring the economic value, and dealing with Islamic value. (iv) in achieving the economic sustainability in stability and just economics.

The weaknesses of gold commodity based currency can be overcome by using digital payment system and credit clearing mechanism. Gold currency has obstructed business and transaction in modern economic exchange due to gold scarcity, gold sufficiency, gold mobility-transportation and flexibility. Nevertheless, it can be solved by implementing digital mobile system, credit clearing mechanism, and function as measurement of value; it is not as currency directly.

The second weakness of gold currency is using as a payment system to settle accounts. It can be addressed if the system implemented together by employing ICT and mobile phone which is viable in overcoming gold mobility and gold transportation issue. Besides that, netting-off settlement system is deployed to address gold sufficiency issues. Moreover, the third shortcoming can be addressed by proposing basket commodity money as capital formation to deal with economic growth. Everything can be as money with gold as measurement of value.

While the crucial weakness of fiat money in term of realizing the economic stability and justice, free-*riba* economics and civil society based on cooperation. This weakness is believed cannot be eliminated except if the fiat money system is converted by the gold system. Digital/payment system and credit clearing cannot achieve the *maqasidsharia* as long as the system of fiat money is still being used (Meraa, 2009).

7. THE DESIGN OF MOBILE PAYMENT SYSTEM BASED ON GOLD FRAMEWORK TO BE IMPLEMENTED IN ACEH

The proposed model is an alteration of the CBDS (commodity based digital system) model, where gold is used as a measurement of value. Greco (2009) emphasised that: “*Many monetary reformers today still believe that money, to be sound, must be fully backed by gold or silver and be redeemable on demand. But this would be a step backward to a more primitive medium of exchange, and would unnecessary throttle the exchange process*”. He stressed that gold and silver if they are used in form physically, could restrain trading. There is therefore a need to develop an efficient model.

The proposed model is not the physical gold dinar because it does not meet all the conditions. The system is proposed in Aceh because it is seeking to comprehensively implement the *shariah* including in the field of *muamalat*. The Aceh government can be involved in the system, while, the role of society/community should be located to a central position.

In general, the capacity and infrastructure readiness in Aceh is able to fulfil the requirements, as described in 7.4. The main players in Aceh showed strong enthusiasm for supporting any Islamic *muamalah* movement especially based on gold. The proposed model involves four institutions: agents/merchants, community and business entities, IT provider, and storing - clearing house.

7.1 The Existing Positive Supporting Infrastructure in Aceh

Agents/Merchants: It is a counter service which serves customers in financial or non-financial transactions. All transactions can be performed in the form of gold as a measurement of value. The agent’s location must be near to the customers so as to have a wide network connecting from the city to the villages. In Aceh, such agents include cooperatives, *BaitulMaalwatTanwil (BMT)*, micro finance, banking agents, personal/community leader,

Islamic mass organization, and business entities, etc. These institutions are expected to strengthen the agents-merchants function.

Personal (P), community, and business (B) entity: These elements are who perform the transactions in the system. The transaction could be P2P, P2B, B2B, and B2P and will be performed by using mobile phones or any other net-capable machines. This program aims to tackle *riba* in the society and work towards the society's welfare. This program will be supported by the *ulama* and in Aceh because in Aceh the Islamic value in terms of *shariah*, *muamalah*, and culture have a close bond.

IT-provider is one of the most important elements on the system which supports ICT, software, hardware, and other infrastructures. These components would enable its clients to perform financial or non-financial transactions online. In Aceh, there are some cellular providers and ICT companies such as Indosat, Telecom, IM3, XL, SMART, Tri (3), etc. (Software Developer House).

Aceh Clearing House (ACH): In general terms, a clearing house is a financial institution that provides clearing and settlement services for financial and commodity transactions, commodity exchange, and trading. Besides that, it can serve as an agent for managing the risk in trading settlement obligations, settlement risks by netting offsetting transactions between multiple counterparties, providing independent valuation of trades and collateral, monitoring the credit. In some cases by providing a guarantee fund which can be used to cover losses that exceed a defaulting clearing firm's collateral on deposit. In the Electronic Payments system, the clearing house may organize the mechanism for the financial services, for example, transfer funds as debits or credits between participating institutions. Moreover, it can participate for settlement in the bilateral or multilateral trade (James, 2007).

In this study the function of the clearing house as an institution is it to function as an assessment of commodity price, transaction settlement, preparing and spreading convertibility value gold to commodity and reverse, account management and database unit, and warehouse unit. In addition, Aceh clearing house functions as a consultant in trade and financial transactions. Besides that, this institution is able to buy/sell any commodities from/to members, serve barter commodities. In the future, this institution is expected as a trading agency in national or international trade. The political support from government therefore is also a strong point in order for smoothing the program especially for establishing the office for clearing house every sub districts, districts, sub regencies, and regencies.

The next institution is Aceh government institutions: Currently, what Aceh is doing is to implement Islamic *shariah* includes *muamalah*. Hence, this program is expected to speed up the effort, as: (1) this system to be expected, as a trigger factor for entry point Islamic *shariah* implementation. (2) This program is not against the central government Act. (3) Aceh is very rich in gold; the system therefore can contribute to awaken the suburban economy. (4) In the rural community, there is a strong relationship in terms of cooperation in the traditional institution such as *TuhaPeaut*, *Gampong* and *Ulama* Institutions.

From the above arguments, we design a mobile payment system based on gold which describes a link among the elements. The mentioned model is depicted as Figure 7.2 and 7.3, as follows:

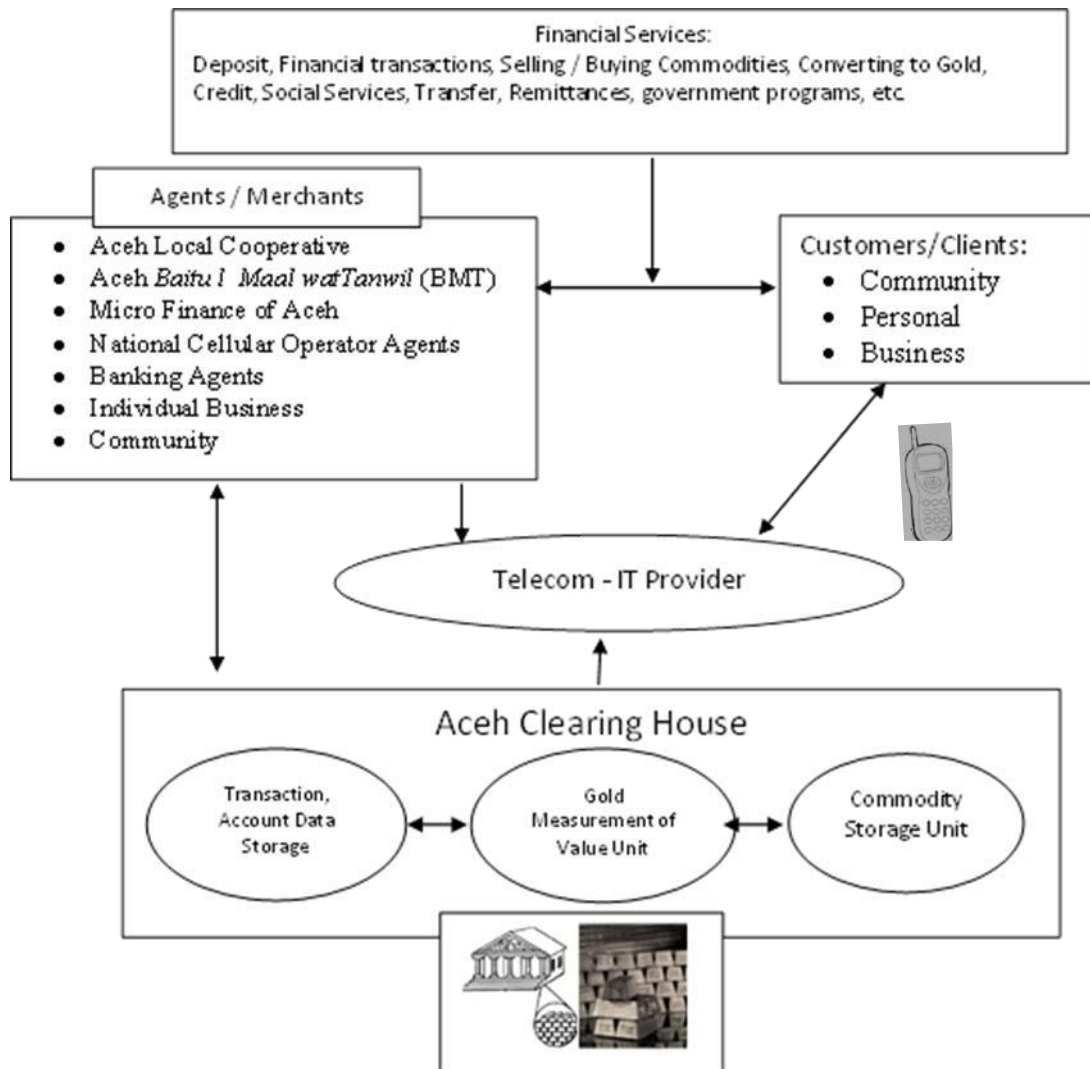


Figure 7.2 Model Mobile Payment System Based on Gold as Measurement of Value

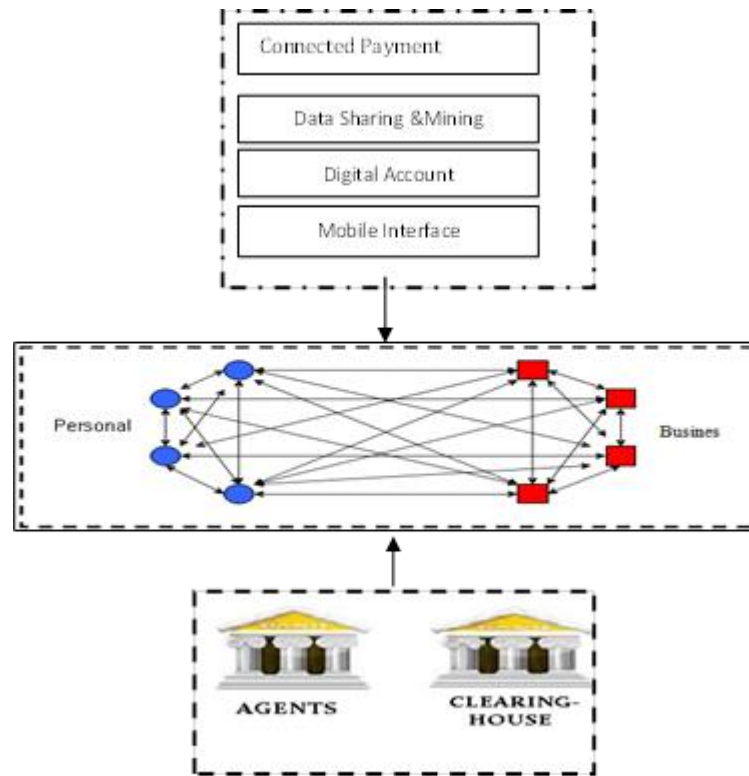


Figure 7.3 *Transaction Model*

7.2 DESCRIPTION OF THE FRAMEWORK

As depicted by Fig. 7.2 and 7.3, the system comprises at least one deposit site, an amount of commodities stored at the deposit site, a telecom/IT provider and computer system for implementing and recording transactions defined in units of the commodity, merchants, mobile phone provider, clearing house, cooperative, micro finance, and other institution as agents.

Originally, customers visit the closest clearing house, agents, or merchant for opening new accounts in gold. Afterwards, they can perform any transactions such as saving, selling, and buying. To convert *IDR* (Indonesian rupiah) to gold account, and/or selling a commodity this is deposited in gold account. The physical gold can be acquired on line with real time from Indonesian Gold Agency (PT ANTAM) by establishing business agreement. The account can be used to make any financial transaction such as buying, services payment, rent, remittances, etc. For example, a farmer selling/storing paddy to the clearing house, then the money converts to gold value in the account. Besides that, they can also directly barter for the desired commodity in the clearing house. The farmers can perform any transaction directly with each other without a clearing house as they know the standard commodity price in gold which they have acquired via cellular phones provided by ICT providers. Office employees or workers can ask their salary valued in gold whether in whole or in part.

Fig. 7.3 described that by using mobile phone, customers are able to conduct transactions, whether individually or via company, in either P2P (personal to personal), P2B (personal to business) or B2P (business to personal). These transactions are conducted by their own mobile phone facilitated by a connected payment platform, data sharing & mining, digital account and mobile interface. In addition, agents and clearing house give an aid in terms of process and procedures. The transactions are made based on commodity conversion to gold. It means that gold and other commodities are in circulation for facilitating any transaction and payment. In addition, the financial transactions and payments are made in units of gold as measure of value. Besides that, gold is also allowed as a medium of transaction however, it is not in it physically. The gold is kept in a secure storage at a deposit site for the benefit of the users. All of the payments and transactions are recorded in the database computer system where the customers can show the transactions history easily.

ACEH Clearing House (ACH) can later be called the National Clearing House (NCH). The functions of ACH/NCH as a payments mechanisms agency can be summarized as follows:

- a. To maintain monetary units of account on deposit so that it is equal to the practice of fractional reserve banking.
- b. To maintain monetary units of account on deposit without being exposed to the risk that those monetary units of account will be loaned by the institution.
- c. To complete a payment without any possible risk now such as, possible loss of funds deposited in a merchant/agents.
- d. To open new account from the customer's request.
- e. To receive immediate credit and to be immediately informed that monetary units of account have been added to the client account managed by the clearing house.
- f. To operate as commodity selling, buying, or barter agent from/to customers in gold value.
- g. To make immediate payment and to be immediately informed that monetary units of account have been deducted from the client account in the clearing house.
- h. Compare and assess the price of certain commodity then compare to the gold
- i. To inform the up to date price automatically and accessible by customers easily.
- j. Store the sold commodity by clients in the safe warehouse or storage units.
- k. To serve the commodities exchange on clients agreement.
- l. To facilitated commodity trading both in domestic or international trade.

In additions, it needs a deposit site for storing the commodities. The deposit sites are preferably located in the special agencies such as a cooperative and other secured financial agencies facility. The deposit site provides facilities for safe and secure storage of the commodity to be used for medium of exchange.

Such deposit site consists of a protected vault. The vault/secure locker/bank are servicing the clearing house system. Users will have the ability to:

- a. Receive/return the commodity from/to a client.
- b. Test the purity of the commodity and measure the weight and/ or other physical properties of the commodity.
- c. Provide identifying information for each parcel of the commodity placed within the deposit site in order to distinguish between the different parcels belonging to the different clients of the deposit site.

- d. Report to the client the quantity of the commodity stored by the client at the deposit site.
- e. Provide identifying information and the capability to physically separate from the total quantity of the commodity stored in the deposit site those parcels of the commodity to be designated for use as medium of exchange.

By the system, using gold as currency is also possible in the creation of financial instruments in futures contracts denominated in terms of a stated weight of gold and silver. Besides that, a future contract can be performed in such commodities such as paddy, grains, corn, cow, goat, horse, soybeans, other perishable goods, oil, crude oil, agricultural products. These products could be similarly designated in gold units of account, then; the transactions would be processed and cleared through clearing house.

8. ISLAMIC VIEW ON THE PROPOSED MODEL

A study by Aizezi A (2010) explored a new monetary system called the Grain backed monetary system (GBMS). Aizezi explained that GBMS is a modified commodity monetary system which is safe, fair and in line with the Islamic monetary system. He stressed that this system will contribute to the contemporary and future sustainable economic development of the Islamic world. This study is also based on commodity modified by gold. Mobile payment system based on gold has never been proposed. This model is a commodity money modification combined with the representative money system.

In this section, we will watch the primacy of the proposed model, then we observe if the model is in line with Islamic principles. We ensure that the model does not contain harmful elements in Islam such as *riba* (usury), *maysir* (gambling), and *gharar* (uncertainty).

8.1 The Advantages of the Model

The proposed model is a mobile payment system based on gold (MPSBG). Fiat money is not used in the financial and economic transactions. All transactions are based on real commodities. The balances in the monetary and the real economic sector are generated by valuable commodity which based on real work or activity. It is expected that the system achieves the economic growth and stability. In MPSBG, each transaction should be set to gold, Secondly; ICT support in any transactions would make it possible to have any transaction via mobile phone as long as the client has a gold account.

This proposed system is the same with gold dinar system in terms of superiority, discussed on the above subchapter in *maslahah-mafsadah series*. Instead, the weakness of gold dinar is solvable. The advantages of the model are:

- a. It is based on intrinsic value and is uncontaminated with debasement issue.
- b. Government does not allow print money mainly to deal with their political goals.
- c. This system does not address Fractional Reserve Banking which would enable the banks to create money.
- d. Based on real and stable commodity, hence it enables speculation and arbitrage.
- e. There is no *seigniorage* issue and money creation of out of thin air.
- f. This system expected to encourage social justice, enhance social cohesion, achieve economic justice and promote national economic independency.

In addition, the proposed model has a strong point on gold as a standard of value in that it is rare and compact, stable and durable for very long periods, homogenous and divisible into minute quantity, storable, can neither be created nor destroyed. In addition, this proposed system is able to overcome the weak issues of gold dinar system such as transaction inefficiency, difficulties to bring, insufficient of gold, because in fact the system work by underlying assumption gold as a measurement of value that is covered by information communication technology *i.e.* mobile phones and IT systems. In this regard, Meera (2013) postulated that the system is the way to establish a just, stable, progressive, and sustainable economic system. It will not encourage inflation, unemployment, and recession instead the distribution of wealth, and peaceful society will be attained. Besides that, zakat, waqf, and charity to be easier accumulated for education, health and public facilities.

However, the implementation strategy is needed such as priority, scope restrictions and road map. Priority refers the early stages imposed on certain sectors e.g. agriculture and trading sector. If it is successfully implemented then it expands to the service sector and so on. Scope restrictions refer to the early stages and only serve a certain amount. In the early stages, it may serve the cooperative members of *Muhammadiyah, al - Wasliyah and Insyaffudin*.

Road map relates to the time and place, for example activities on the first year, second year, and so on. The place differentiations means to focus on a certain area, for example, only serve specific communities in the village. The pilot project strategy is important because if successfully implemented on a small scale, then it will be successful in a larger area. This strategy is important to avoid chaos.

As can be observed above, the proposed model has several advantages such as being a stable, fair, and practical system.

8.2 Islamic View : Justice

Justice is an important value that should be appreciated by mankind because it will ensure the well-being of mankind in the world and the hereafter. Islam gives equal opportunity to all Muslims in the field of *muamalat*. They have the right to make use of the economic resources available to best fulfil their needs accordingly. Mankind deals with their unlimited needs are not allowed to achieve them by using illegal means such as dishonesty, greedy and selfish (Chapra, 1985). This act is not fair because the social welfare cannot be attained. Islam does not allow achieving wealth that would affect harm to another as welfare is not for individual or group but for all together by distributing wealth fairly, and does not allowed control by certain group.

The gold commodity system is fair as it encourages brotherhood and cooperation principles. By gold system, a loan does not impose the interest. Hence, it will encourage new entrepreneur as new project business that still can be done although the zero profit achieved or even it was lower than interest rate. The interest system, bank will be financing the projects which have margins greater than the interest rate. Then, the next impact is the economy will lose the surplus of human resources.

The next issue is fractional reserve banking (FRB). FRB is the bank's ability to issue the new multiplied money based on the taken deposit. Regarding the issue, Larbani (2012) said that FRB is harmful in Islam, moral principle, and value market economic principle. Because, in Islam, the wealth creation should be based on two fundamental principles;

physical or intellectual effort work and risk, by FRB the bank acquire assets with FRB money that is harmful in Islam. The principles are in fact universal and recognized by any religions. If wealth is created without these principles on a wide scale, the economy would be unsustainable, cause societal damage, and end in collapse.

FRB is harmful in Islam as it is against God's command in term of wealth consummation by evil ways such as vanity and trickery. Besides that, it has a direct correlation between FRB and compound interest, and the systemic destruction of both the cultural and natural environments. As Meera and Larbani (2009) elaborate:

“Fractional reserve banking (FRB) is the basis of the present day monetary systems. In most countries, Islamic Banking and Finance too operates under this principle....FRB has effects on the ownership structure of assets in the economy, and that this effect violates the Islamic principles of ownership....money creation through FRB is creation of purchasing power out of nothing which brings about unjust ownership transfers of assets in the economy, to the bank effectively, paid for by the whole economy through inflation. This transfer of ownership is not based on human effort by taking on legitimate risks and neither with the knowledge nor the consent of the initial owners. These violate the ownership principles in Islam and tantamount to theft. It also has the elements of riba. On the same basis, Islamic governments should not create fiat money since this is equivalent to taking assets of the people, rich and poor alike, forcefully without compensation. It is, therefore, important that shariah scholars come up with a fatwa on both the fiat money and the fractional reserve banking system. Such a fatwa is urgent and pertinent before Islamic banking and finance that operate under these systems, takes a course that may prove to be difficult to reverse later. The Islamic economic and finance system cannot be founded upon a money system that is fundamentally equivalent to theft and riba”.

In addition, in this system a commodity is not replaceable with worthless money as fictive value in paper money. By this system, natural resources in developing countries such as timber, mining, coal, oil, gas, etc. are not exchangeable with sheet of paper. However, it should be substituted by valuable commodity. Then, justice concept will be brought into reality such as; international trade justice, social and environment justice, and complete economic justice as expressed by Rodney Shakespeare and Peter Challen (2002). He stressed that the main aspects of justice are social justice, economic justice and together with ecological justice. Social justice refers to institutions/organizations as tools for personal and social development, social justice, and social justice, which embodies ecological justice. It requires us to maintain the environment, without it, all else becomes naught.

While economic justice refers to material welfare together by three principles namely participation, distribution, and harmony. Another reason why gold should be employed as a standard of value is to achieve a just society that is inherent in its value. Gold is the preferred commodity as it is a low-risk medium of payment and it has standard value, if gold is to be used as a measurement of value, the arising obligation from transactions in trade and commerce can be eliminated. In addition, if gold is used as currency, when the seller receives gold, there is no further obligation because the sold product has been exchanged for a tangible

asset. Hence, to bring justice into reality, using gold as currency may be a wise start, however, *muamalah*, *aqidah*, and *syariah* should be brought in unison for a tight, foolproof method.

8.3 Islamic View : Riba (Usury)

Riba can be defined as an addition of no equal in value (Ahmad *et al.*, 2012). Usury is prohibited in Islam because of the serious-effect to the community and nation. Moreover, usury is the cause of economic inflation, the wealth accumulation confining its wealth to only certain groups, and widening the gap between the rich and the poor. The weak and poor will always remain in hardship and oppression. They have trouble in paying due to the excessively high rates imposed for late debt repayment. In the fiat money system, it may occur throughout interest, fractional reserve banking (FRB) and *seigniorage* and all of elements has serious impact to human life, it is therefore considered as *riba* (Meera&Larbani, 2009).

Riba affects the spirit of helping each other (*qard al-hassan*) that is the key success factor to promote Islamic society. On the contrary, that usury also causes the brotherhood gap to be widened, degrade and wreck the community's composition due to greed, and selfishness (Ahmad, 2012). Then it will create a malevolent society which brings to animosity, revenge, hate, cruelty, exploitative, and destruction (Chapra, 1984)

Moreover, usury tends to create a lazy culture, because they are confident of getting regular fixed gains without any hard work. As a result, the manpower is not able to promote full production level due to one of the productivity factors is unutilized and wasted. Therefore, optimal economical levels cannot be achieved. In addition, Gilani, (2014) stressed that Islamic economists and even *dinarists* may have a say that *riba* and interest are the main power of capitalism. It is the root cause of economic injustice, corruption, poverty-perpetuating system, colonialism, persecution, and oppression.

The payment system based on gold as a measurement of value does not contain *riba* (interest or fractional reserve banking). In fact, the system encourages alleviating interest, in order for the economic imbalance to be minimized. Another problem in the current fiat money system is *seigniorage*. Edawati (2013) declared that issuing money without intrinsic value could cause the first, second, and third level of *seigniorage* which is the initial start of *ribafadhal*. The additional profit form without work can trigger in such circumstances:

1. Countries reap huge benefits easily without significant work through the provision multiple values or prices in worthless piece of paper.
2. A bank reaps additional profits easily by effortlessly issuing new multiple money (Banknote) over the acquired paper money from their deposit, this is fractional reserve banking.
3. The rich country easily draws in great benefits through printing new money which is then lent to the poor countries. Then the poor countries would have to work excessively hard to repay the principal and its interests. In this case, the rich countries benefit easily over the poor country's hard work.

Based on the above facts, it is clear that *seigniorage* causes injustice of individual, domestic, and in the international relationship. Hence, there is a need to rethink the nature of money. Banks, as well as its function, can be embodied. In addition, the proposed system does not allow charging interest and doubling the money such as FRB in fiat money. With regards

to banks, it needs another study; the bank may be as financing agents based on *qiradh* and *syirkah*.

8.4 Islamic View: No element of *Gharar*

Gharar is uncertainty that causes more uncertainty. In the case of gold money, it does not experience this condition as gold has intrinsic value and it is accepted globally. Gold and silver can also be used as currency, as it is a consistent and unwavering unit of account. An ounce today is the same as an ounce yesterday or an ounce twenty years ago. However, national currency does not have these characteristics. US Dollar or other paper currencies on deposit in Bank X is not the same as the same currency on deposit at Bank Y because these two banks have different levels of capital and a different mix of assets. Therefore, Dollars or other currencies on deposit in these unrelated institutions have entirely different levels of risk, so the national currency is not a consistent and unvarying unit of account.

Gharar is not permissible in Islam, because it can cause harm to the parties involved. Siddiqi (2009) highlights that risk includes *gharar* issue, as it can result in injustice, persecution and animosity. Besides that, the often occurrences of financial crisis in the world economies are due to the existence of *gharar* element. *Gharar* subject to information to anything have to be truthful, clear and transparent (Ahmad et al. 2012). On the contrary, the *muamalah* principles are achieved through certainty, complete knowledge, complete disclosure and transparency of information about the object. In addition, *gharar* leads to injustice and exploitation among the involved parties in the any transactions.

8.5 Islamic view: No containment of Prohibited Elements

In the Islamic perspective, every transaction must be free of prohibited elements such as gambling activities, speculations and manipulations. The word gambling refers to a wager of asset in anticipation of huge profits through excessive risks taking. Islam forbids gambling activities that yield unworthy returns which results in only one party to win and gain huge profits while the other is victimized (al-Saati, 2002).

Meanwhile, speculative activity is normally associated with the different prices of the currencies or other commodities. Based on the differed time and place, it is easier to speculate the currency. They have more speculation power than others such as information, power, capital etc. Any party is not able to determine the gold included government as it comes from God. If gold is to be employed as currency, it will free from external factor. Gold is non-national money; it means that, it is outside the range of government interferes as gold is not subject to the government politics as it is beyond the control of governments, central banks, and monetary authorities. In addition, in term of purchasing power, the gold is better than national currency over long periods.

In the proposed system, gold is used as a standardization of value because of its characteristically stable value. It is therefore, all of the distortion which is caused by differences and uncertainties can be minimized. Moreover, it supports an effort to destroy interest and gives increase charities. While, in fiat system, gambling, speculation and

arbitrage is very common, typically in exchange rate games; swap transactions, forward transactions, and option transactions.

9. CONCLUSION

The concept of commodity based digital currency (CBDC) has been used in several countries, such as United States, Australia, Britain, and Japan. This system is not centralized by any authorized institutions. This system is proficient with community participation, initiated in internet payment systems in 1996. CBDC was modified of the concept of receipt where it is given in exchange of gold deposit. This deposit can be used for exchange of goods or services. CCBDC system was not money but a legal concept of money. It does not possess an intrinsic purchasing power. It refers to capital formation, electronic payment, remittance and netting for trading proposes. In the current ICT era, mobile and electronic payment is very common. It can be combined by based gold, silver and other valuable commodities in which its value to be the value measurement is one way to stand for establishing the just, stable, and progressive economy. No inflation will appeared and it will reduce unemployment. Wealth will be distributed equally among the people. The future money would be integrated by the technology information system which leads to stability issues.

In the current global monetary system, it is impossible to implement the gold dinar physically as money because of some constraints. The most crucial constraint is IMF articles. However, fiat monetary system is the most convenient compared to others; the advantages of the fiat money system cannot offset its disadvantages. Gold as measurement of value is a proper way to deal with justice and fair problems.

In assessing the implementation of digital financial institutions, it requires a platform to associate ICT (information communication technology), data sharing/mining, digital account, and clients by using mobile phone. Additionally, the implementation would involve the Islamic community, institutions, and organizations. In purposing gold as the measurement of value, the CBDS model should be integrated with some institutions such as clearing system and other society community. The gold cannot attain the conditions of huge trades physically; it can be preceded with such measurement of value. Aceh was chosen in this study as it was a district in Indonesia which that implements Islamic principles. The society has a strong enthusiasm for supporting any kind of Islamic transactions or *muamalah*. The system needs four major institutions namely, agents, community and business entity, IT provider and store-clearing house system. Fortunately, Aceh already has these four institutions.

Commodity money based on gold as measurement of value, that is also backed- by mobile/digital payment system and combined by using direct credit clearing method fulfils the eight (8) criteria; serving to modern economic, medium exchange, store of value, unit of account, and measurement of value function. In addition, the model is capable to deal with money supply in serving economic growth, to deal with Islamic value, and to achieve economic sustainability, stability and just economic. Typically, gold-based commodity money does not fulfil all these criteria; however, it can be covered by combining with other systems, namely; mobile payment system, gold as measurement of value, and clearing system.

By using mobile phones, customers; whether individual or business, enables the conduct any transactions whether P2P (personal to personal), P2B (personal to business) or

B2P (business to personal). These transactions are normally conducted by their own mobile phone facilitated by system connected payment platform, data sharing & mining, digital account, and mobile interface. The transactions are made based on commodity conversion to gold as measurement of value. All of the payments and transactions are recorded in the database computer system where the customers can show the transactions history easily. Private initiative and enlightened government action can evolve the credit money into a credit clearing system in serving an efficient transaction. By credit clearing as the means of exchange; gold can be the pricing unit. The real Islamic prosperity can be achieved through the organization of direct credit clearing associations.

The proposed model has several advantages such as stability, fair, practical, and the system is in line with the Islamic principles on *muamalah*, namely; *riba* (usury), *gharar*, gambling and no containment of prohibited elements. In addition, the proposed model, it can revive the village economic sector, especially in terms of employment and income improvement. The rural economic sector will circulate by the unemployed/idle gold in Aceh. Ultimately, it is an effort to strengthen the marginalized people that is in line with what Allah says in the Quran (*QS: Al Hasyr, 7*) "*In order that it may not (merely) make a circuit between the wealthy among you*". However, to strengthen the movement there is a need to integrate solutions both mentally and spiritually. Governments should actively get involved as the private sector does not have enough power to deal with the issue. The government plays an important role in preparing the political power as well as establishing the rules and regulations for said issues.

References

- Ahmad et al.,(2012), The Principle of Risk Management: Sharia Perspectives, Journal of Applied Sciences Research, 8(7): 3335-3343, 2012 ISSN 1819-544X).
- Aizezi, A, (2010). Islamic Monetary System: a Study on Viability of Transforming The Fiat money System into the Grain backed Monetary System, ISTAC-IIUM ,Master Thesis, IIUM-2010
- Al-Saati, Abdul Rahim Abdul Hameed, 2002 A.D/1422 A.H. Sharia Compatible Futures. Journal King Abdulaziz University: Islamic Econ. 15 (1): 3-25. <http://www.isu.ac.ir.pdf> [17 Feb. 2010].
- Bagehot W., (2013) "A currency based on a market basket of commodities appeared in the Economic", <http://cepa.newschool.edu/het/essays/monetarism/mpolicy.htm>, nov 2013
- Bank Indonesia, (2013). Indonesia Motor Asia Pacific, Financial Media Journal, V.8 No. 73 Sep 2013
- Bank Indonesia, 2013, The Path Way of Financial Inclusion in Indonesia, Yearly Report, Dec 2013
- Carat, 2002, E-money, The EU Single Market.European Commission. 11 August 2013. Retrieved from <http://www.wikipedia.com.singlemarketEC20390//onT2S>,on 9 January 2014)
- Chapra, M.U., (1985). Towards a Just Monetary System. Leicester: the Islamic Foundation.).

- Chibba, M. (2006a), Financial Inclusion. Briefing Note. Gaborone: Botswana Confederation of Commerce, Industry and Manpower (BOCCIM).
- Chibba, M. (2007), Monetary policy, governance, and economic development: The Botswana experience. *World Economics* 8(3): 111–129.
- Chibba, M. (2008), Poverty reduction in developing countries: No consensus but plenty of solutions. *World Economics* 9(1): 197–200.
- Chibba, Michael (2009), Financial Inclusion, Poverty Reduction and the Millennium Development Goals, *European Journal of Development Research* (2009) 21, 213–230, doi:10.1057/ejdr.2008.17
- Edawati, S, (2011), ‘Dinar Emas; Mekanisme Implementasi dalam Ekonomi Semasa’, Ph.D Thesis, UKM-Malaysia
- Edawati, S.& Mujani K.(2011). Cabaran dan Prospek Pelaksanaan Sistem Mata Wang Berasaskan Dinar Emas, Conference Paper, Seminar Kebangsaan UKM, Malaysia
- Edawati, S. (2012a). Mekanisme Dinar Emas dan Pelaksanaannya dalam Ekonomi Semasa, University Kebangsaan Malaysia (UKM) Press
- Edawati, S. (2012b), The reality of Gold Dinar Application in Malaysia, *Journal of Advances in natural and Applied Sciences*, Vol 6 (3): 341-347
- Edawati, S. dan Sanep Ahmad (2012), Dinar Emas: Sejarah dan Aplikasi Semasa, Penerbit UKM, Bangi Malaysia.
- Forgionne, G. A., (2000), Decision-making support system effectiveness: The process to outcome link. *Information Knowledge Systems Management Journal*, Vol.2 (2), 2000, p. 169 -188.
- Gilani, Yunus, (2014), “The effect of *Riba*”, IUM Muamalat research yahoo group, iium@yahoo.com”, published on 27th March, 2014
- Henry and Liu,(2013), Reform of the Global Financial System, by Henry C. K. Liu, University of Colorado, Retrired from <http://wfhummel.cnhost.com/globalfinancereform.htm>, on Nov. 2013
- Henry and Lloyd (2013), “Mints appeared in the early monetarists”, retrieved from (<http://cepa.newschool.edu/het/essays/monetarism/mpolicy.htm> on Nov. 2013.
- Hosein, I. (1997). Prohibition of Riba in the Qur’an & Sunnah, Masjid Dar al-Quran. New York
- Hosein, I. (2007), The Gold Dinar and Silver Dirham: Islam and the Future of Money, Kuala Lumpur, Malaysia. Ramadan 1428/October 2007
- Hosein, I. (2008). Dinar Emas dan Dirham Perak: Masa Depan Wang Islam. Kuala Lumpur, Darul Fikir.
- Hosein, I. (2010). Gold Dinar the Future Money. Keynote speech in 1st World Conference on Riba, 1st and 2nd November 2010.
- Hosein, I. (2013). Use the Gold Currency or Dinar as Israel and America will use Gold as A Currency in The Future. Masjid Raya Bogor, 11/06/2011, Republika News.
- James, J. Turk, (2007), “Method and System for Commodity Based Currency for Payment of Account” United stated patent No;7,206763B2 April 17, 2007, US, Prior Publication data.
- Jhon Gitau, (2013), Center for Financial Inclusion, Financial Inclusion, Policy, Technology | Tags: Alliance for Financial Inclusion, Financial Inclusion, John Gitau, Kenya, M-

- PESA, M-Shwari, Mobile Money, Safaricom, South Africa, retrieved on March 11, 2013.
- John Gitau, (2009), (What Makes Someone Financially Included? I'm Confused Posted by John Gitau, CEO, Kenya Financial Education Centre.
- Kinsey Mc. (2010), Global Financial Inclusion Achieving full financial inclusion at the intersection of social benefit and economic sustainability, Mc Kinsey Company 2010
- Larbani, M (2012), FRB from Islamic Perspective, Conference paper in 3rd Annual World Conference On *Riba*, Kuala Lumpur 2012
- Lietaer B. (2001) "The Future of Money: Towards New Wealth, Work and a Wiser World", New European From: European Business Review, Volume 13, Issue 2. published by Random House, London. ISBN 0712683 992 352 pp.; 2001.
- Litaer (1999), a Currency Backed by a Predetermined Basket of Commodities', Green' Convertible Currency', Glossary, Global Reference Currency.
- Meera and Larbani, 2009, "Ownership Effects of Fractional Reserve Banking: An Islamic Perspective," in Humanomics, vol. 25, no. 2 (May 2009), 101-116. See also AhamedKameelMydinMeera and Moussa Larbani, "*Seigniorage* of Fiat Money and the Maqasid al-Shari'ah: The Unattainableness of the Shari'ah," in Humanomics, vol. 22, no. 1 (2006); and idem, "*Seigniorage* of Fiat Money and the Maqasid al-Shari'ah: The Compatibility of the Gold Dinar with the Maqasid," in Humanomics, vol. 22, no. 2 (2006).
- Meera, (2013), "International Seminar – Islamic Finance and Its role in economic development", UGM, Yogyakarta November 2013
- Meir K. (2013), "Deposit Insurance" chapter Financial Institutions and Markets", retrieved from <http://wfhummel.cnhost.com/depositinsurance.html>, on December 2013
- McKinsey (2008), research conducted in partnership with the Financial Access Initiative (a consortium of researchers at New York University, Harvard, Yale, and Innovations for Poverty Action); we relied on financial usage data from Patrick Honohan, "Cross-country variation in household access to financial services," Journal of Banking & Finance, Volume 32, Number 11, 2008, pp. 2493–500
- Michelle Baddeley, (2004), Using E-Cash In The New Economy: An Economic Analysis Of Micropayment Systems, Journal of Electronic Commerce Research, VOL. 5, NO.4, 2004, Gonville& Caius College and Faculty of Economics and Politics, Cambridge, UK)
- Moloi, Mindy, (2009). Strategy Optimizing Financial Inclusion in South Africa, Thesis, University of Pretoria-South Africa, 2009
- Moloi, Mindy., (2009). Strategy Optimizing Financial Inclusion in South Africa, Thesis, University of Pretoria-South Africa, 2009
- Mundell, A. Robert. (1997), The International Monetary System in the 21st Century: Could Gold Make a Comeback?, Columbia University, Lecture delivered at St. Vincent College, Letrobe, Pennsylvania, March 12, 1997.
- Mundell, A. Robert. (1997), The International Monetary System in the 21st Century: Could Gold Make a Comeback?, Columbia University, Lecture delivered at St. Vincent College, Letrobe, Pennsylvania, March 12, 1997.

- Nyazee, Imran Ahsan Khan, (2008), The Concept of *Riba* and Islamic Banking, Advanced Legal Study Institute, 2008, p129. Fiat money “Justified’ Through Ijtihad, based on the Concept of Maslahah
- Quiggin, A.H. (1979). A survey of Primitive Money, California:AMS Press
- Rodney Shakespeare and Peter Challen, (2002), Seven Steps to Justice, Proceeding of the International Conference on stable and just Global Monetary System, IIUM 2002
- Supartoyo, Y H Et. Al. (2013), Branchless Banking MewujudkanKeuanganInklusifSebagaiAlternatifSolusiInovatifMenanggulangiKemiskinan: Review Dan Rekomendasi. Retrieved On:
- UK’s Department for International Development (DFID). (2004) Financial Sector Development: A Prerequisite for Growth and Poverty Reduction. Briefing (Policy Division), June. DFID. (2006)
- The free encyclopedia: [http://en.wikipedia.org/wiki/Clearing_house_\(finance\)](http://en.wikipedia.org/wiki/Clearing_house_(finance))
- , April 3, 2013 in Center for Financial Inclusion, Client Protection, Financial Inclusion, Policy, Technology | Tags: Alliance for Financial Inclusion, CGAP, Client Protection, Consumer Credit, Financial Inclusion, Mobile Money, Regulation, Toronto Centre
- , August 29, 2013 in Center for Financial Inclusion, Financial Education, Policy | Tags: Alliance for Financial Inclusion, Maya Declaration, Nepal
- , Bitcoin - Electronic Money, Retrieved from http://en.wikipedia.org/wiki/Electronic_money, on 10 March 2014
- , October 31, 2012 in Center for Financial Inclusion, Financial Inclusion, Financial Inclusion 2020, Microfinance, Policy | Tags: Alliance for Financial Inclusion, Capt Town, Financial Inclusion, Financial Inclusion 2020, Gates Foundation, South Africa
- <http://www.chacha.com/question/what-are-disadvantages-and-advantages-of-using-representative-money#sthash.9BpJVqyV.dpuf>