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The current practice of Islamic microfinance institutions' accounting information system via the implementation of mobile banking

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Abstract

Islamic Microfinance Institutions (IMFIs) have been established to provide Qard Hasan in promoting trade activities in terms of entrepreneurship development among the microfinance borrowers. This paper critically discuss the current practices of the IMFIs in the aspects of 1) the social values from the Islamic perspective that can provide a positive contribution for Islamic microfinance, 2) the application of Mobile Banking on its capability to widen the access of financial services, and 3) the implementation of Mobile Banking in facilitating the accounting information system. The study hopes to contribute significant findings towards providing viable groundwork for IMFIs' successful model.

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Keywords: Microfinance (MF); Islamic Microfinance Institution (IMFI); Mobile Banking (MB); Accounting Information System (AIS); Information Technology (IT);

1. Introduction

Malaysia has strived hard towards sustaining economic growth and reducing poverty as indicated by the reduction in country's poverty rate to 1.7% in 2012 compared to 16.5% in 1990. The mechanism used for poverty

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alleviation in Malaysia is the establishment of three main Islamic Microfinance Institutions (IMFIs) which are Amanah Ikhtiar Malaysia (AIM), The Economic Fund for National Entrepreneurs Group (TEKUN) and Yayasan Usaha Maju (YUM)(Mokhtar, Nartea, and Gan, n.d.; Mokhtar, Nartea, Zealand, and Gan, 2012).

The uniqueness of an IMFI as compared to conventional microfinance institution (MFI) is that it has to endure by Islamic principles as outlined by the Shariah comprising of the Holy Quran, Sunnah, and Islamic Jurisprudence. This is so as Islam, as a way of life commands believers (Muslims) to live by the Holy Quran (the Holy Book that consist the words of ALLAH) and the Sunnah (sayings, approvals, and actions of the Prophet Muhammad Peace Be Upon Him [PBUH]) (Khaled, 2006; Kaleem and Ahmed, 2009; Syed Yusuf, 2011; Khaled, 2013).

Few researches has justified that poverty alleviation can be achieved by fulfilling the Social Performance: the ability of extending loan to the more potential loan recipients that are poorer in more geographically hard-to-reach areas; and the financial performance: the performance of IMFIs' Accounting Information System (AIS) in loan disbursement and loan repayment section (Kauffman and Riggins, 2012**;** Weber, 2012). In achieving the aforementioned performances, an innovation recommended by Bank Negara Malaysia (BNM) called Mobile Banking (MB) has the capability to be accessible by all in widening the access of financial services (BNM, 2010).

1.1 Islamic Microfinance Institutions

The notion of microfinance (MF) has been initiated by Dr.Muhamad Yunus, the founder of Grameen Bank Bangladesh and the Nobel Peace Prize recipient in 2006. MF is a mode of financing to serve poor people in assisting themselves to become economically independent and to be self-employed. In this mode of financing, the poor has been allocated with credit or loan to finance their income generated trade activities. MF has been seen as an alternative to charity as the latter will let the poor to be dependant and lack of initiative (Abdul Rahman, 2007; Abdul Rahman, 2013). MF models can be replicated due to its flexibility and should be tailored to suit the local socio-economic and cultural characteristics (Segrado, 2005).

However in Muslim countries like Malaysia, initiatives have been made to implement Islamic Microfinance (IMF). This is due mainly in respect of the strong belief that poverty alleviation and social sustainability can be successfully achieved by the application of the Shariah (Islamic law) based solutions through the establishment of the Islamic financial system. Being a sub-set of Islamic Economic & Financial System, IMF holds a unique characteristic of providing opportunities in utilizing a sustainable system by offering a good rate of return in an ideal scenario. Furthermore, the Islamic socio-economic objectives which include social justice, economic growth, efficiency and stability would be achieved through Islamic financing (Malina Amran, Rahman and Salwani Mohamed, 2013; Md Saad and Abdul Razak, 2013). From the evidence obtained, IMF has shown several traits in providing a support system for the poorest of the poor. Its dynamic feature prevents the consequences of structural devastation as IMF emphasizes on ethical, moral and social factors to promote equality and fairness for the prosperity of the society (Alhuda CIBE, 2013). As such, IMF has been viewed as offering a better financing tool compared to the conventional MF system. On this aspect, IMF has been receiving growing popularity nowadays as it provides Shariah compliant financial products and services (Said, Shafqat, and Rehman, n.d.; Suzana, Kasim, Fasha, and Shamsir, 2012; Edbiz Consulting, 2012).

The IMFI has been viewed as a successful vehicle in micro financing as it offers the interest free loan called QardHasan. IMF activities should not be involved with any prohibited elements like usury (riba) (Dusuki, 2008). Furthermore, it is more practical to the poor as the loan given is free from the requirement of collateral or a guarantor. QardHasan is functioning well upon the application of group lending and peer pressure theory (Dusuki, 2008; Mokhtar, 2011; Mokhtar et al., 2012). Trust has been the basis of the IMF and human capital is a very distinguished feature in the IMF system. In the grouping system, each member of the group is provided with a small loan. New loan will be provided upon settling off the previous loan. The loan repayment scheme is on weekly basis. The loans are given together with a compulsory savings package. The priority of the loan is to establish social capital through group joint projects executed among the loan recipients. Hence social interaction which has been stipulated in the Islamic principles has been used as guidance in contributing towards the growth and success of the IMF in a broader view (Abdul Rahman, 2007).

Islamic leadership attributes are instilled among the group leaders as they play an important role in ensuring a good repayment system in their own centres. IMFI needs a good repayment system as it gives the opportunity to

help more poor people and it also gives new loans to the existing loan recipients for sustainability of business. To have an effective repayment system, it requires the creation of trade activities with good profit margin among the loan recipients. Motivation and skills are hence highly required in order to achieve this. Upon receiving the QardHasan loan, the loan recipients are also provided with money management trainings to inculcate financial responsibility to the loan recipients (Kaleem and Ahmed, 2009; Kauffman and Riggins, 2012; Ismail, 2013). The unique characteristic of IMF is that it strongly recognises the impact of religion and spirituality among the IMF's fraternity. For AIM, the weekly meetings in all centres throughout Malaysia will begin with the recitation of the salawat, zikir and doa for the purpose of achieving the blessings of ALLAH SWT.

The social values which are being promoted by Islam are systematic and will create sustainability to the IMF's fraternity. It is aimed at achieving "Ihsan" (Benign); an Arabic term that is impossible to be translated into just one English word as it holds a rather broad and deep meaning. ALLAH SWT states in the Qur'an through Surah Ali Imran: 148, "So ALLAH SWT gives them the reward of this world and better reward of the hereafter and ALLAH SWT loves those who do good (to others)". From this verse, it clearly indicates that "Allah yuhibbul-muhsineen"; which can be translated as, "Allah loves the fair-doers". "Al-muhsin" is an individual who does good actions while Ihsan is goodness derived from the good action. Ihsan also carries the meaning of to perfect, to excel, and to portray proficiency and excellence. Therefore, it is the obligation of the Muslims to strive to achieve excellence, proficiency, and perfection in all actions taken. A civilization cannot be achieved if Muslims are not trying their best to achieve the best results in whatever they are doing.

The importance of Islam as a religion and the way of life and its impact on success has also been agreed and supported by Lancelot Lawton which stated in `The Sphere'. He viewed that "As a religion of the Mohammedan religion, it must be confessed, is more suited to Africa than is the Christian religion; indeed, I would even say that it is suited to the world as a whole" (Greene, n.d.; Zainal Abidin, 2007). By looking at the medical aspect, the findings from a research done by Dr. Harold G. Koenig shows that frequent attendance at religious service provide some support for the hypothesis in association with healthier immune system. Religious attendance reduces depression by enhancing immunological function in the human body (Koenig, Cohen, George, Hays, Larson and Blazer, 1997).

1.2 Accounting Information Systems (AIS)

The importance of Accounting Information Systems (AIS) to IMFIs is indisputable and has been exposed through several research works. Among the recent research work on AIS had been presented at the 2012 Annual Conference of the Italian Chapter of AIS (ItAIS) in Rome, Italy. Generally, AIS's research is inclusive of design, acceptance and reliance, value added, decision making, inter-organizational links, and process improvements. Though AIS is often considered as the instrument by default for accounting automation, its ability in mixing interrelated elements namely data, information, human resources, information technology (IT) tools, accounting models, and procedures, has facilitated in achieving the objective of accounting which basically involves collecting, classifying, elaborating, recording, and storing of accounting data. Hence, it is undeniable that AIS is a powerful strategic tool to support decision making (Mancini, Vaassen, and Dameri, 2013).

Accounting has always been associated with the ''language of business" due to its important role in business's decision making. Hence, being the language of business, accounting itself must be dynamic in its own characteristic. This is true as the prosperity of an IMFI relies upon how well it adapts to the business's changing environment. In coping with this, a sensible strategic control plays a fundamental role in ensuring that an organization adapts successfully to its changing environment. For that instance, AIS has been earmarked to be used effectively to serve this purpose. The beauty of AIS to an IMFI is that it is a mechanism which is critically utilised in supporting effective decision making and control. This is by so looking at previous studies done in examining the multiple indicators of accounting system's effectiveness. Apart from the concept of effectiveness, the concept of ''information usefulness'' has also been extensively examined in the previous accounting literature. The AIS has been acknowledged by accounting theorists of its cognition in rendering critical decision-influencing and decision-facilitating information for control. It can be concluded that the quality of information outputs produced by the system has been suggested as an important medium of effectiveness. Hence by looking at this perspective, AIS's effectiveness is derived from the ability of the system in providing output information that can be effectively

consumed in responding to control requirements (Gobbo, 2013).

IMFIs should thoroughly look at their AISs' strength and capability in generating reliable information to be useful tool for decision making. There are 6 elements of AIS namely people using the system, data of the organisation, software used to process the data, procedure and instruction used to collect, process and store data, IT infrastructure, and the internal control and security measures that safeguard the data. The people or staff of the AIS department should be receiving proper training in ensuring that proper data management system. This is to prevent error from happening which will contribute loss and wastage in terms of time and productivity to the IMFIs. Besides the proper training on the job scope, staffs are highly required to have training on religious aspects inclusive of integrity and ethical considerations to prevent fraud.

The current software used must be able to transform data into information and its interoperability in exchanging and reusing information internally as well as externally. It should also be flexible and able to cope with changes in business policies and rules, and scalable enough to function well when there are changes to the load or demand. Thus, the availability of the software to function and work properly over a predefined period must be clearly identified (Barbacci, Longstaff, Mark, and Weinstock, 1995; Clarrus Consulting Group Inc., 2010; Romney and Steinbart, 2012).

The reliability procedure and instruction used to collect, process, and store data can be portrayed through the properly designed document flowchart, system flowchart, and programme flowchart. Supportability should exist where the operators, developers and users understand in the using of the application. IMFI data and its operation namely the loan repayment and disbursement process must be properly maintained. A database system should be made available for the purpose of maintaining the data. The availability of the IT technology infrastructure inclusive of computers, peripheral devices, and network communication for the AIS is another element which requires serious consideration. The performance of the existing back end/core system together with any challenges faced must be properly identified by the IMFIs (Barbacci et al., 1995; Clarrus Consulting Group Inc., 2010; Romney and Steinbart, 2012).

The internal controls and security measures that safeguard data is the last but not least element of the AIS. Proper segregation of duties in keying data to prevent errors and the existence of employees to supervise, monitor, and correct errors must be properly defined. The assurance of transactions being authorized by appropriate supervisory personnel and independent checks on performance, such as reconciliation of two independent sets of records are a necessity. The system should also be able to authenticate the person to perform any transaction prior to allowing the transaction to take place and only authorized personnel are allowed to have access to system resources. Segregation of accounting functions exist for authorization, recording, and custodial purposes of properly designed documents and records to be used to capture and process transactions. Internal controls and security measures exist in safeguarding the data and asset in respect on the receipt of loan repayment and disbursing of loans in ensuring proper authorizations, segregation of duties, and physical custody. The installation of the operating system updates, and security and application programs should be made available to protect the system (Barbacci et al., 1995; Clarrus Consulting Group Inc., 2010; Romney and Steinbart, 2012).

1.3 Mobile Banking (MB)

The MFIs around the globe are being established to provide financial services to the world's poor with the intention of transmitting individuals and families out of poverty. However, the advent of information and communication technologies (ICTs) namely MB, internet usage, and connectivity, has given a great impact to the MF industry. The advantage of Internet banking is that it allows customers to perform financial transactions online. This will boost the customers' demand for the lower costs banking (Abu Shanab, 2005). The ICTs impact can be categorized as impact on intermediation among several players in the MF industry and also on the extent of which MFIs extend their outreach to the poorer borrowers located in the more remote areas. Witnessing the increased adoption and reliance on ICTs among the MFIs will open up the doors for researchers in the information systems environment (Mohamed, 2010; Weber, 2012).

The last two decades have been witnessing a rapid technological advancement and innovation which have revolutionised the payment landscape in the global business operations. The urgency to achieve the economic efficiency and cost savings for the purpose of improving the long-term competitiveness and sustainability, have

created high demand for electronic payment. Electronic payment serves the automation of payables and receivables and consequently reducing and eliminating the extensive cost of paper and labour, and also potential errors in processing. It also allows for better resource allocation and improves cash flow forecasting resulting in the improvement of cash flow, and increasing the productivity, profitability, and agility of businesses. Hence, business is now entering into a different era as it is more focus in wringing out cost and maximising the supply chain (Fiorina, 2001; Basole, 2006; BNM, 2010). As the usage of MB is already on the upward trend, the legal aspects that govern the services offered by MB must also be taken into consideration in enhancing customer trust. This involves matters related to data security and consumer protection especially on the situation where certain key activities have been outsourced to mobile operators (Weber and Darbellay, 2010).

The high penetration of mobile phones in Malaysia even amongst the poor is a cliché for the convergence of electronic money and mobile phone. The application of MB will provide the infrastructure of assessing the MF loan recipients who are usually unbanked and underserved segments of the population, specifically in the rural or non-urban areas. The utilisation of MB is not only confined to mobile payment and remittance services to the communities, but can be extended to facilitate other financial products and services including credit, savings and insurance. Thus, the MF fraternity will be provided with the formal financial system and economic mainstream which would transform the livelihood of the poorer segments of society. The relationship between electronic payment and "green" initiatives would also enable businesses to move towards eco-friendly work environment and practice social responsibility. The application of "Equator Principles" in the financial services is achieved by moving away from the usage of paper through on-line banking and the elimination of driving to the bank in reducing the carbon footprints. Statistics have shown that an estimation of 1.8 million trees which equal to 100 million pounds of paper would have been saved if 20% of households in the world switch to online payment modes (BNM, 2010).

The increase in MB usage is due to the phenomena where there are around one billion people in emerging markets having mobile phones but do not have access to banking services through mobile phones. Interestingly, surveys have shown that there are approximately two and a half billion unbanked adults worldwide, who neither have a savings or credit account with a traditional (regulated bank) nor with the alternative financial institution such as MFI. As such, financial institutions have decided to choose mobile financial services (MFS) as a form of 'branchless banking' as it offers financial services with lower costs in serving the low-income customers. This will help MFIs to reach more people with enhanced quality of services (Dass and Pal, 2010; Malina Amran et al, 2013). The significant contribution of MB is that it is able to increase the efficiency and outreach of MF loans in developing countries. MB has the potentiality of offering the IMF loan recipients to repay loans from any location and to receive timely loan reminders via SMS. The innovation has enlightened the IMF fraternity as MB generates deeper outreach to poorer and more rural people, efficiency in operation, and higher repayment rates due to the flexibility in executing repayment of loans from anywhere they have cell phone reception (Gant, 2012).

Upon the observation made on IMF's community, it is discovered that IMF's loan recipients, generally, are not homogenous populace as they are culturally, socially and economically different. However, they are common in terms of living in cash based economy where they can only afford to buy pocket-size quantity of goods at a time and buying is done regularly (Senthe, 2012). These will consequently leave IMFIs with the encumbrance of maintaining small amount but high volume of transactions and extending financial services individually is very costly. Furthermore the notion of charging interest for the purpose of covering the costs is indeed prohibited in the IMF's principle (Alhuda CIBE, 2013). Thus MB has been seen to be closely related to the IMF's fraternity as it is the means of reducing the operation cost by simultaneously decreasing the manual collection in several geographic areas covered by the loan officers (Senthe, 2012). Coincidently, remote areas have always been akin to insufficient infrastructure where routes reaching to the remote areas are seldom being maintained and generally are not in good condition. This will create an environment where communication is always interrupted due to the inefficient movement of information. The challenge of insufficient infrastructure will be combated by MB as it disseminates information faster by bypassing the market obstacles (The Louis Berger Group Inc., 2011).

1.4. Mobile Banking in Facilitating IMFI Accounting Information System

MB has the capability of offering financial services through the mobile phone. However the implementation of

MB among the IMF community should not be viewed only as an isolated case. IMFIs must also plan to ensure the effective usage of their back-end management information systems as the implementation of MB has the potential of shaping and impacting their organizational strategy. Upon the growth of the IMF Industry, IMFIs are expected to increase their sophistication of ICT usage. IMFIs should align their business strategy with their ICT strategy to provide effective services to the clients and maintain their sustainability. Upon having a reliable IS, MBIs are able to shape the IMFI strategy in engaging good business practices and make an honest effort to extent outreach services to the poor who are in need of IMF loan (Kauffman and Riggins, 2012; Weber, 2012, Malina Amran et al., 2013).

As the aspect of practicality is concerned, the advent of MB technology must be properly delineated specifically on its ability in streamlining IMFI's AIS (Romney and Steinbart, 2012; Wardiwiyono, 2012) inclusive of accounting and financing operation specifically on the loan disbursement and loan repayment section. The ability to synchronize the front-end functionalities and back-end integration (Turban and King, 2003; Laudon, Traver, Shah Alam, Saihani, and Mohamed Noordin, 2009) will contribute a reliable IS (Wardiwiyono, 2012) for decision making for IMFIs in the move toward poverty alleviation.

1.5. Conclusion

Research has shown that religion plays an important element in the achievement of social values and performance and IMF has been proved to be a powerful tool to fight poverty. Nevertheless even though IMF has been applied as the mode of financing, it must be implemented in accordance with shariah-compliant methodology. Shariah-compliant covers the competency of IMFI's AIS (Romney and Steinbart, 2012; Wardiwiyono, 2012) in tracking its accounting activity in conjunction with IT resources which mainly include the system of loan repayments and disbursement (Weber, 2012; Abd Ghani, 2013). A proper AIS is important in deciding on further IMF loan approval for the existing loan recipients and also for the potential loan recipients (Kauffman and Riggins, 2012).From the research done it can lead to the conclusion that MB is an appropriate mechanism for cost reduction and flexibility enhancement. This is due to the fact MB offers cost effective service delivery channels in achieving the target of financing the poor in the remote areas (The Louis Berger Group Inc., 2011). MFIs are often exposed to risks on extending loans and services to MF recipients without credit histories or collateral. In enabling them to keep their financial stability, many MFIs charge interest on MF loan to cover their administrative and operational costs. Thus by implementing MB, MFIs are able to defray overhead costs and there will be a reduction of operation costs as manual collection and cash handling are no more needed (Senthe, 2012). Hence, the ability of MB to fit with the ecosystem make it a very suitable tool to the IMF fraternity as it assists IMFIs in reducing cost to combat the challenge of riba' and facilitate the AIS (Alhuda CIBE, 2013). The combination of the aforementioned elements will bring forward to the success factors of the IMFIs to alleviate poverty.

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