

## **Financial Inclusion through Efficient Zakat Distribution for Poverty Alleviation in Malaysia: Using *FinTech* & Mobile Banking**

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### **ABSTRACT**

The agenda of Millennium Development through Sustainable Development Goals (SDG) has doubled from merely eight targets to achieving 17 targets covering various socio-economic spectrums. Financial inclusion has always been a critical component in alleviating poverty and is reflecting the target of Millennium Development Goals (MDG). In case of poverty alleviation, particularly in Malaysia, Zakat distribution has always been a vital and significant factor in reducing income inequalities among the various strata of community. However, in this study usage of *FinTech* and mobile banking is discussed to achieving financial inclusion by efficient zakat distribution. From review of the various literatures the use of technology such as mobile banking has proven a successful tool for financial inclusion. This possibly will be a new channel for zakat distribution in addressing the issue of efficiency and distribution effectiveness. Therefore, the purpose of this study is to show the relevancy and significance of mobile banking for efficient zakat distribution which leads to a cost reduction in an effort to poverty alleviation. Furthermore, recommendations were also given in this study for the purpose of contribution to the existing body of Fintech knowledge and Islamic social financing.

*Keywords: MDG, SDG, Financial Inclusion, Poverty Alleviation, Mobile Banking*

### **INTRODUCTION**

The population of financially excluded around the globe is enormous. According to the United Nations (UN), about 3 billion people around the globe does not have access to financial services such as bank account, savings, credit entitlements that is provided by the financial institutions, insurance coverage and other services (Chibba, 2008; UN, 2007). The purpose of financial inclusion is to provide financial access to all social groups. Beside the fact that financial inclusion has been proven to be a vital element in alleviating poverty by inclusiveness of economic growth (Demirgüç-Kunt, Klapper, Singer, & Van Oudheusden, 2015). In line with the Millennium Development Goals (MDGs) which was formed during the Millennium Summit in September 2000, all the gathered world leaders have committed

their nations to a new global partnership to reduce extreme poverty. This is a mapping out a time bound goals series which is otherwise known as Millennium Development Goals (MDG). During the meeting 25-27 September 2015, at United Nations Headquarters in New York a new global Sustainable Development Goals (SDGs) were worked out. This Sustainable Development Goals (SDGs) was worked out from the Millennium Development Goal (MDGs). With 17 such goals, all United Nation (UN) leaders have committed their nations between now and 2030 to achieve all the above goals in order to provide a better world for everyone.

Poverty reduction and economic growth is among the goals that need to be religiously perused for achieving the Sustainable Development Goals (SDGs) (UN, 2015). In juncture to poverty reduction and economic growth, a financial inclusion program through the so called social financing such as *Zakat*, *Sadaqah* and *Wqaf* has been used in Islamic civilisations as vital element to achieve the above objectives (Demirgüç-Kunt et al., 2015; Farah Aida, Rashidah, & Normah, 2012). However, in this study the main focus is to show that with mobile banking, financial inclusion could be achieved faster by improving the efficiency of zakat distribution. At the same time this can contribute towards poverty alleviation. This is because mobile banking has been proven to be significant factor in contributing towards financial inclusion from the previous studies (Atul Srivastava, 2013; Etim, 2014; Hinson, 2011; Mago, 2014). At the same time, this also facilitates achieving one of the targets of the Sustainable Development Goals (SDGs) itself. The relevancy of mobile banking towards financial inclusion and zakat distribution will be further discussed in the following sections.

## **MILLENNIUM DEVELOPMENT GOALS (MDGS) AND SUSTAINABLE DEVELOPMENT GOALS (SDGS)**

As mentioned in the introduction section above, Millennium Development Goals (MDGs) was formed in September 2000 during the Millennium Summit. All the leaders gathered on the historic day have committed their nations to a new global partnership with a time bound targets with a deadline of 2015. Malaysia as well is one of the members of United Nations. Therefore, the Millennium Development Goals (MDGs) was also applied to Malaysia. The original 8 goals are as following (United Nations Malaysia, 2016):

1. (MDG-1) Eradicate extreme hunger and poverty
2. (MDG-2) Achieve Universal Primary Education
3. (MDG-3) Promote gender equality and empower women.
4. (MDG-4) Reduce child mortality
5. (MDG-5) Improve maternal health
6. (MDG-6) Combat HIV/AIDS, Malaria and other disease
7. (MDG-7) Ensure environmental sustainability
8. (MDG-8) Developed a global partnership for development

From the Malaysia Millennium Development Goals (MDG) 2015 report, it was stated that Malaysia has achieved most of the goals and targets, and that the benefits of development have disperse to all levels such as at the national, regional, state, and in many cases, community and individual levels. With respect to the super goal, absolute poverty has been largely eliminated. All school-age children are receiving primary education and most of them would receive 11 years of almost free education. Gender parity has been over achieved in education. Healthcare outcomes in child and maternal mortality rates are at levels comparable to those in developed countries. In the area of environment, the government are making good progress on the pledge to reduce the intensity in the carbon emissions. However, despite the

achievement there are still challenges lied ahead to achieve the goal of inclusive and sustainable development. Besides, there are still small pockets of relative poverty remained, and the effort will need to be intensified to reach the less fortunate amongst our people. For example, the remote and hard-to-reach communities still have problems in accessing services such as education, financial services (related to financial inclusion), healthcare, but innovative ways are being developed to make sure that necessary services will be delivered to them.

During the summit meeting at UN Headquarters in New York, 193 Head of States and other leaders had committed their nation to a new global partnership which was built from the previously eight MDG which is also known as the Sustainable Development Goals (SDGs). The gathered leaders set revised targets to eradicate poverty in all forms and dimension including extreme poverty which is the greatest global challenge. They focused to acquire sustainable development from three dimensions which is economic, social and environmental. One of the reasons of why SDG was formed is because to fulfill the unfinished business and to strive forward to provide a better world for everyone. Consequential-Sustainable Development Goals (SDGs) are 17 as follows:

**Table 1: List of Sustainable Development Goals (SDGs)**

SDG 1	End poverty in all its forms everywhere.
SDG 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
SDG 3	Ensure healthy lives and promote well-being for all at all ages
SDG 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
SDG 5	Achieve gender equality and empower all women and girls
SDG 6	Ensure availability and sustainable management of water and sanitation for all
SDG 7	Ensure access to affordable, reliable, sustainable and modern energy for all
SDG 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
SDG 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
SDG 10	Reduce inequality within and among countries
SDG 11	Make cities and human settlements inclusive, safe, resilient and sustainable
SDG 12	Ensure sustainable consumption and production patterns
SDG 13	Take urgent action to combat climate change and its impacts
SDG 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
SDG 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
SDG 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
SDG 17	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Source: [www.un.org.my](http://www.un.org.my)

As Malaysia as one of the UN members which try to achieve all the 17 SDG targets. Thus, in this conceptual paper mobile banking is brought forward as a method in helping to improve the zakat distribution system in Malaysia. Consequently, the intention to improve zakat distribution method could possibly help the financial inclusion in achieving one of the 17 SDG for Malaysia.

The main *objectives* hence for this study in the following paragraphs in proceeding sections will be;

*Firstly*, to discussing on mobile banking role in efficient distribution of zakat; and

*Secondly* to be used as the new method for zakat distribution among the *asnaf* as these are poor people entrapped mostly in poverty.

## METHODOLOGY

The methodology in this research has been divided into two phases. Phase one is based on the review of the literature; while, the second phase is through some preliminary interviews of the officers who are entrusted in zakat management and distribution in Malaysia. In order to achieve the purpose of first phase of this study various literatures was collected and comprehensively reviewed. In the process of reviewing literatures, keywords such as ‘mobile banking’, ‘mobile banking acceptance’, ‘financial inclusion’, ‘zakat problem and issues’, ‘role of zakat’, ‘enhancement of zakat distribution’, ‘technology in zakat distribution’, Millennium Development Goals (MDGs), Sustainable Development Goals (SDGs) was used in collecting the appropriate literature to be used.

Interview sessions were also conducted with District Executive Officers in charge for zakat distribution, to acquire some pertinent issues on zakat distribution. The time duration for the interview is between 30 minutes the least to 1 hour. The interview was divided into three areas of scope of the study. First scope is to identify what are the current issues in zakat distribution in term of management, technology structure and system. The second scope is to assess whether the zakat officer have heard ‘Fintech’, then a brief explanation was conducted for the officers to gain some understanding regarding ‘Fintech’. The third scope is assessing the opinion of zakat officers on using mobile banking as the new channel for zakat distribution method in Malaysia. The interview is conducted in calm and comfortable environment which helps the officers to answer all the three questions comfortably.

The questions that were asked to the zakat officer are as followed:

1. In your opinion, what are the current issues in zakat distribution?
2. Have you heard the term ‘Fintech’?
  - a. If the answer is no, a brief explanation regarding ‘Fintech’ will be given
3. What is your opinion on using mobile banking as the new channel of zakat distribution method in your respective jurisdictions?

Thus, with the combination of literature review and interview sessions with the zakat officers regarding mobile banking system to be possibly seen as the new channel of the zakat distribution method among *asnaf* in Malaysia.

## ZAKAT: AN OVERVIEW

Zakat is one of the five fundamental pillars of Islam. Payment of zakat is an obligatory form of worship to Allah *s.w.t*. Zakat is a Quranic term that signifies the specific obligation of giving a portion of an individual’s wealth and possession solely for charitable purposes. Literally, zakat is derived from an Arabic word that carries the meaning of “that which

purifies”, as well as “that which foster”, for example, growth and increased wealth redistribution among poor (Mannan, 1986). On top of that, zakat has been mentioned in the Holy Quran with other meaning such as sadaqah (donation) which also carries the connotation of giving voluntarily in charity. According to Lembaga Zakat Selangor (2010), zakat means spending some specific property to be given or paid to the *asnaf* as they are entitled to receive the zakat funds, which they are in line with the conditions stipulated by *syara*. *Asnaf* who are categorized into eight categories as mentioned in the Holy Quran in Surah At-Taubah:

“Alms are for the poor and the needy, and those employed to administer zakat (amil), for those whose hearts have been reconciled to the Truth, for those in bondage and in debt, in the cause of Allah and for the wayfarer”

(9:60)

The *asnaf* can be categorized into eight types which are respectively; Masakin (poor), Al-Fuqara (needy), Al-gharimun (people in debt), Ibn sabil (traveler/wayfarer), Al-riqab (slave), Muallaf (convert/reconciled to Islam), Fi-sabilillah (doing something for Islam’s cause) and Amil (has the right to collect zakat).

The zakat has been divided into two which is zakat al-fitr and zakat of wealth. Zakat al-fitr is where Muslim will pay once a year during the month of Ramadhan before the festive season or also known Eid Mubarak (Hari Raya Aidilfitri). While for zakat on wealth, it includes zakat on income, zakat on business, zakat on saving, zakat on gold and silver, zakat on poultry (for example, cow, goat and so on), zakat on fruits and grain, zakat on investment as well as zakat on Employees Provident Fund (EPF). Zakat is a vital element and a centre of Islamic public finance which covers the moral, social and economic obligations on the rich fellow members of the Muslims. From the moral perspective, zakat washes away the sentiment of greed of the rich. On the other, in the social sphere, zakat act as a social security net that safeguards provided by Islam to minimise sufferings from the society by making it a social obligation for the rich. While in the economic sphere, zakat prevents the accumulation of wealth in the hands of a few (Hairunnizam Wahid, 2014).

### **Zakat Institution in Malaysia**

In Malaysia, the Zakat Institution is under the jurisdiction of each state. Each state has their own law regarding Zakat management. For example, in Selangor Darul Ehsan, the highest authority is the Sultan of Selangor which then will be followed by the State Islamic Religious Council (SIRC) or also known as Majlis Agama Islam Selangor (MAIS)<sup>1</sup>. However, there are some states which have also outsourced and privatized their zakat collections like Selangor, Wilayah Persekutuan Kuala Lumpur, Pahang, Pulau Pinang, Melaka and Negeri Sembilan (Ahmad, Wahid, & Mohamad, 2006). This privatization has been made due to ensuring the zakat management is capable of providing quality service in maximizing customers’ satisfaction through professional approach by using latest technology while in line with Islamic value propositions.

### **Role of Zakat in Poverty Alleviation**

According to Al-Qardawi (1999), the word “al-zakah” has been mentioned thirty times in the Holy Quran. Literally, zakat means to grow and to increase, while in Shari’ah, zakat is a

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<sup>1</sup> Source: <http://www.zakatselangor.com.my/info-lzs/struktur-korporat-lzs/>

concept referring to the redistribution of wealth prescribed by God to the deserving category of people. Zakat management is measured in terms of efficiency and effectiveness by looking at threefold aims; while helping in poverty alleviation zakat helps to minimise the greediness among the Muslims and good oriented behaviour. It is expected that zakat will be able to purify the income of all the zakat payers, and at the same time console the heart of the asnaf by fulfilling the basic needs of the poor and destitute by solving their socio-economic problems such as poverty, unemployment, indebtedness, and unfair income distribution among the communities (Al-Qardawi, 1999; Bello, 2010). For knowledge sake, Islam is not the only one that has the tool to alleviate poverty. Even in other religions they have their own concept and mechanism (Mahamod, 2011). For example, the concept of alms-giving among Hindus (known as *datrtadatriva*), Buddhism (*danain*), and *tithe* for the Christians are known systems of charitable acts. *Tithe* for instance refers to the requirement of paying part of one's income to the Church for the maintenance of the religious institution, the support of its ministers (religious administrators), the promotion of its works and the relief of the poor. For further confirmation, even previous studies have highlighted that zakat is an effective mechanism in tackling social issues such eradication of poverty from country that is actively involved in utilizing zakat for poverty reduction in their own country such as Indonesia and Malaysia (Embong, Taha, & Nor, 2013; Farah Aida et al., 2012; Hassan, 2010; Saad & Abdullah, 2014).

### **Zakat Collection and Distribution in Malaysia**

Nowadays, enhanced used of digital devices and financial technology and innovation has improved how zakat is collected. Since the people do not know how to calculate the amount of zakat they need to pay, the institution has provided a calculator on their website which can calculate the total amount need to be paid according to the type of zakat such as zakat on income, zakat on business, zakat on gold and silver and others. There is various ways for a Muslim to pay their zakat. For example, Zakat Selangor has provided four ways for the Muslims in the state to pay zakat<sup>2</sup>.

The **first** method is through internet banking. Zakat payers now can pay zakat through their internet banking. Currently there are 10 banks that offer such services which are RHB Bank (RHB Online banking), AmBank (AmOnline), CIMB Bank (CIMB Clicks), Bank Islam (Bank Islam Internet Banking), OCBC Bank (OCBC Al-Amin Internet Banking), Public Bank (PB e-Bank.com), Bank Rakyat (iRakyat), EON Bank (EON Bank Online Banking), HSBC Bank (HSBC online Banking) and Maybank (Maybank2u).

The **second** method is through swiping Credit card and Debit Card. Those who would like to pay zakat using a credit card can just go to any Lembaga Zakat Selangor (LZS) or Zakat counter and just swipe the card. However, the counter only allowed Islamic credit card which has been recognized by the Jabatan Mufti Negeri Selangor. Among the Islamic credit cards that many banks in Malaysia allowed are (1) Bank Islam (Visa & Master), (2) Al-Tasliif AmBank (Visa & Master), (3) I-Bank Rakyat, (4) Al-Ikhwan Maybank Islamic, (5) Al-Rajhi Bank and (6) Al-Aiman BSN. For a debit card, all local banks including international ones such as Al-Rajhi Bank are allowed to be used as long as the card has the logo of MEPS BANKCARD and microchip.

The **third** method is through MyClear FPX (Financial Process Exchange). FPX is a service where the payment can be done in real time directly from your internet banking. The last method is used through salary reduction scheme, directly through any LZS zakat counter,

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<sup>2</sup> Source: <http://www.zakatselangor.com.my/>

through Postage, SMS, and others. The salary reduction scheme is also known as ‘Skim Berkat’.

### **Issues in Zakat Distribution**

The collection of zakat has been developing from year to year, but the issue of zakat distribution still remains to be discussed and improved for the benefit of the *asnaf* itself (Lubis et al., 2011). Due to the proper control and management policy the Baitul Maal of respective states do not allow private participation in Zakat disbursements, rather it remains under state administration. Distribution channel and method of Zakat disbursements issue have attracted the attention of Muslim community, especially the zakat payers (Hafizah, Siti Khalilah, Rahayu, & Siti Nur Zahirah, 2016). This is because the zakat payers would like to know where and to whom does the zakat amount being paid. There are also prior studies that had been done that discuss the issues of the inefficiency of management in zakat distribution (Ahmad et al., 2006; Ahmad, Wahid, & Noor, 2005; Ibrahim, 2008; Wahid, Ahmad, & Kader, 2009). Most prior studies show one similar view which is issue of fast and speedy disbursements whereby the collection of zakat is getting better year by year but the issue regarding the distribution still not being paid proper attention.

According to Azman et al., (2012), there are three issues. Zakat institutions in Malaysia must pay attention to; which are (1) inefficiency especially in distribution aspects, (2) identifying and managing database after tracing prospective zakat payers and receivers, and (3) capacity building of the *asnaf*. In the efficiency aspect, the zakat distribution sometimes does not reach to the ‘real’ *asnaf* due to lack of knowledge. Secondly, the zakat was distributed to the right person but at the same time, there are other people who need more zakat compared to the former. Thirdly, the element is presence of bureaucracy which would slow down the process of application for zakat. For example, people who have ‘bad’ experience with the authority would feel discouraged to apply for seeking financial assistance of zakat.

In the prospective payer’s aspect, after discussing with relevant authorities, the author believes that the collection of zakat could be improved not only identifying those who currently pay zakat but also trace down to the prospective and potential zakat payers. This is because, according to report made by PPZ/MAIWP in 2010 the number of Muslims in a relatively rich states, Selangor is approximately 2 million, the total of those who pay zakat only around 160,000. Therefore, the authority needs to be more proactive by giving a briefing on the importance of paying zakat as a Muslim. Zakat institution aim is also to build and guide the *asnaf*. Just by giving the *asnaf* a sum of money to buy their necessities is only a short-term solution. The long-term goal is to transform from an *asnaf* from receiving Zakat to the one who pays the zakat in long run. However, this could be achieved by providing education, certain skills, and training that could avail him/her for future employability or starting businesses.

During a question and answer session on 21st of June and 16th of July 2017 with a District Executive for Zakat Distribution of Hulu Selangor, some problem was identified particularly on the method of distribution of zakat to the *asnaf*. Regarding the issue of the zakat where he/she doesn’t get to the ‘real’ *asnaf* is not valid. The zakat officer stated that “Firstly the process to be an *asnaf* is very thorough. The *asnaf* have to fill in the census form or also known as ‘*borang bancian*’ which require the information regarding the person. After that, the zakat officer will go through the form and then personally will visit the house to check the information given whether it is true or not. This is because there are cases of fraud where people pretend to be an *asnaf* in the past would have been avoided”.

Regarding the method (monetary) of distributing the zakat, there are three ways so far which are (1) cash, (2) cheque, and (3) Internet Banking. The zakat officers also stated that about more than 80% of the *asnaf* today have bank accounts, so mostly the popular method is through internet banking. However, there are instances when cash and cheque are needed. For example, a person who involved in declared bankruptcy does not have a bank account. So, mostly they receive the zakat in the form of cash. For example, an *asnaf* applied for zakat to buy a bicycle. The zakat will be given in the form of cheque to avoid any misuse of the zakat received. So, the method is different according to the situation.

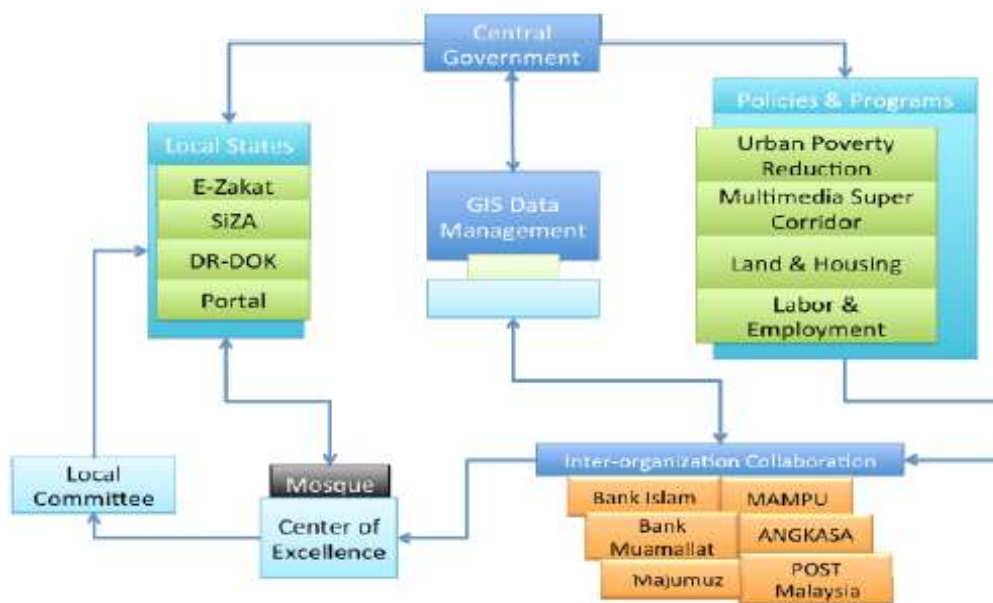
During the second session, Mr. Mohd Syafiq gives his opinion on the suggestion of using mobile banking as a method of distributing the zakat to the *asnaf*. Before Mr. Mohd Syafiq gives his opinion, a brief explanation on how Fintech and the technology innovation in the financial industry has changed our daily routine is given to himself. According to Mr. Mohd Syafiq, "Firstly it is good because it will provide an alternative method for Zakat Institutions. Secondly, most of the *asnaf* that he has been dealing with are using smartphone nowadays which will be easier for the Zakat Institutions to apply the mobile banking services. On top of that, zakat will be introducing 'V-cash'. 'V-cash' is specifically for the person who urgently needs cash. The *asnaf* will receive an SMS from the zakat system. Then, he can go to the bank and show the SMS received from the zakat to receive some cash. However, this service is still new, therefore for now if I'm not sure whether it is available or not. Thirdly, regarding the issue where *asnaf* called the Zakat Institution to complain why they have still not received the zakat even though it is overdue and has been distributed to other recipients. Sometimes, due to communication breakdown the *asnaf* failed to know even that they have received the zakat or not."

### ***Enhancement of Zakat Distribution in Malaysia***

There are literatures that discusses on the enhancement of zakat distribution especially in term of management. For example, Lubis, M., Yaacob, N. I., Omar, Y., Dahlan, A., & Rahman, A. (2011, April) conducted a study on the enhancement of zakat distribution management system. The study proposed the usage of Geographical Information System (GIS) approach. GIS is an advanced system that utilize longitudinal and latitude and alleviating variable in presenting data by automation calculation through spatial result analysis that will help in supporting decision-making process. The system also has been used in various sector such as archaeology, natural resources management, agriculture, and so on. Particularly, in Malaysia the system has been adopted in forest harvesting (Yusmah & Rodziah, 2005). The authors also thoroughly explain how this system would help in improving the efficiency of zakat distribution with a following diagram.



Figure 1: Integrated Approach in Advancement Zakat Distribution



Integrated approach in advancement zakat distribution

Source: Lubis, M., Yaacob, N. I., Omar, Y., Dahlan, A., & Rahman, A. (2011, April). Enhancement of zakat distribution management system: case study in Malaysia. In International Management Conference 2011 Proceedings (pp. 1-10)

While, Dahlan, A. R. A., Awang, S. N. B., & Mahmood, A. B. (2015), suggested to fully utilize the role of Mosque in helping to improve the Muslim community especially in the aspect of zakat distribution. Therefore a conceptual solution was proposed by the authors which is a system that is collaborated with network of mosque known as e-Zakat4u. The main purpose of the system is to improve the efficiency of distribution of zakat among the *asnaf* with the collaboration of network-of-mosque (NoM), Marang District Office and MAIDAM (Majlis Agama Islam dan Adat Melayu Terengganu) itself. The author further explained the Business Model Canvas (BMC) for the NoM and e-Zakat4u system through the table-2 below.

### **Technology enhancement in zakat distribution channel**

As been mentioned in the earlier section, zakat collection and distribution method by Zakat Institutions has improved so much due to the technology factor. Zakat collection channel has improved by the year. During the old days, people use to go to zakat institutions itself to pay the zakat or they will go to the mosque near to their neighbourhood to pay zakat because usually *amil* (person who has the right to collect zakat will be there). Now days, there are lots of channels provided by the Zakat Institutions for the zakat payers to pay zakat. For example in Selangor, Lembaga Zakat Selangor (LZS) provide various of method to pay zakat such as through internet banking, credit and debit card, MyClear FPX, salary reduction scheme, postage, SMS and others. While for the *asnaf*, they have been receiving zakat in the form of cash, cheque and now days things are getting more easier with internet banking where they can save time and cost. However, this is for the financial assistance (bantuan kewangan). For the assistance such as food, rice, and others zakat officers themselves will deliver to the *asnaf*. Thus, in this study the focus is more on the channel for zakat distribution in term of financial assistance.

**Table 2: Business Model Canvas (BMC)**

<b>Key Partners</b> -MAIDAM -Marang District office -Companies/SME's -Government Agency -University	<b>Key Activities</b> -Control the system and provide financial assistance -Provide information of the residents -Contribute knowledge and skills -Provide job opportunities based on their skills or expertise	<b>Value Proposition</b> -Convenient and timely distribution of zakat -Convenient and timely distribution by the public	<b>Customer Relationship</b> -Provide financial assistance to the asnaf	<b>Customer Segments</b> -Asnaf -Public (donaters,experts)
	<b>Key Resources</b> -Zakat platform Technology infrastructure		<b>Channels</b> -e-Zakat4u	
<b>Cost Structures</b> -Allowance -Wi-Fi -Maintenance		<b>Revenue Streams</b> -Advertising		

Source: Dahlan, A. R. A., Awang, S. N. B., & Mahmood, A. B. (2015). e-ZAKAT4U Program: Enhancing Zakat Distribution System by Merging with Network-of-Mosque (NoM). *International Journal of Management and Commerce Innovations*, 3(1), 264-268.

## FINANCIAL TECHNOLOGY (Fintech)

Technology has changed how people interact with each other. For example, in term of communication. During the old days people use letters, old phone, public phones, pager or meeting directly face-to-face to communicate to each other. This evolution also applies in the financial industry in the aspect of how consumer conduct their financial transaction in their daily life. Financial institution has evolved the services from desk-counter to web-based and then further advanced to the internet and digital method. People in the industry or people who have knowledge in the financial industry now days refer this as 'Fintech'. However, the services provided by the financial institutions such as online banking, mobile banking, apps and so on is only a fraction of 'Fintech'. Currently, there is no consensus or unanimously term of 'Fintech' which is accepted by all. The table-3 below shows definitions of 'Fintech' from various literatures.

**Table 3: Definition of Fintech**

Author	Definition
(Bettinger, 1972) p.62	"FINTECH is an acronym which stands for financial technology, combined bank expertise with modern management science technique and the computer"
(Micu & Micu, 2016) p. 380	"Financial Technology, also known as FinTech is a new sector in the finance industry that incorporates the whole plethora of technology that is used in finance to facilitate trades, corporates business or interaction, and services provided to the retail consumer"
(Shim & Shin, 2016) p. 170	"Fintech is an emerging financial services sector that includes third-party payment, MMF, insurance products, risk management, authentication, and peer-to-peer (P2P) lending"

(Maier, 2016) p. 143	“Driven by technological advances, new service model has developed in the financial industry which offer additional opportunities to customers. Under the common denominator ‘fintech’, these new businesses aim to challenge existing financial institutions by using technology to deliver value to the customer in an alternative way”.
(Čižinská, Krabec, & Venegas, 2016) p. 1	“FinTech is an economic industry composed of companies that use technology to make financial services more efficient”.
(Lončarski, 2016) p. 2	“In addition to this, a particular evolution and use of technology (commonly referred these days as fintech) in finance are disrupting traditional business model in financial markets, as well as bringing about new and uncharted risk territories”.
(Shen & Huang, 2016) p. 221	“Internet finance, which is often referred to as ‘digital finance’ and ‘Fintech’ outside China, was coined by Ping Xie and Chuanwei Zou (2012)”
(Xie, Zou, & Liu, 2016) p. 241 & 250	“Internet finance is a spectral concept. It covers all form of financial transaction and financial intermediaries and markets, such as commercial banks, securities firms, insurance companies, and stock exchange, to the scenario under Walrasian equilibrium (where neither financial intermediaries nor markets exist) caused by the impacts of internets technologies” and “We think internet finance and Fintech are essentially different word for the same concept”.
(Jun & Yeo, 2016) p. 159	“Recent advances in information and communication technology (ICT) have led to the rapid development and expansion of new and innovative financial services, often termed FinTech”
(Kim, Choi, Park, & Yeon, 2016) p. 1058	“Fintech is a service sector which uses mobile-centered IT technology to enhance the efficiency of the financial system. As a term, it is a compound of ‘finance’ and ‘technology’ and collectively refers to industrial changes forged from the convergence of financial services and IT”.
(Xie & Zou, 2013) p. 1	“Besides indirect financing via commercial banks and direct financing through security markets, a third way to conduct financial activities will emerge, which we call ‘internet finance’”.
(Barberis, 2014) p. 5	“FinTech refers to the application of technology within the financial industry. The sector covers a wide range of activities from payment (e.g. Contactless) to financial data and analysis (e.g. Credit scoring), financial software (e.g. risk management), digitized processes (e.g. authentication) and, perhaps most well-known to the wider public, payment platforms (e.g. P2P lending).”
(Ernst & Young & Langley, 2014) p. 1	“Technology applied to financial services (Fintech) has a significant impact on our daily lives, from facilitating payments for goods and services to providing the infrastructure essential to the operation of the world’s financial institutions”

Source: Schueffel, P. (2016). Taming the Beast: A Scientific Definition of Fintech. *Journal of Innovation Management JIM*, 4(4), 32–54.

From the table 3 above, it is fair to say that each literature has their own definition of ‘Fintech’. There also literatures that share similar views, for example Bettinger (1972) refer fintech as financial technology, combined with modern bank expertise, modern science technique and the computer. This is similar to Barberis (2014) which refer fintech as the application of technology within the financial industry that cover wide range of activities from payment to financial data analysis, financial software, digitized processes, and well-known to wider public such as payment platform for example P2P lending and others. However, all the definition has two commonalities that they shared from each other which is all has (1) financial industry involved, (2) technology innovation, and (3) enhancing or facilitating the financial activities in the broadest sense.

Schueffel, P. (2016) had done a semantic analysis study on the definition of ‘FinTech’. It was found that (1) four of the ten discriminable scholarly definitions claim fintech to be a sector or industry, (2) two of the ten definitions define it as a technology, (3) three sources view fintech as a type of action, and it can be a business, services and broad activities in the financial industry. From the study the following definition of ‘FinTech’ is proposed:

“Fintech is a new financial industry that applies technology to improve financial activities”

Therefore, in this study the main objective is to propose the use of mobile banking to further improve the efficiency of zakat distribution in Malaysia.

### **Proposed Distribution Method: Mobile Banking**

The collection methods is already transforming rapidly from year to year. From traditional method which is from counter collection to the application of sophisticated internet banking and so on. However, technology innovation for the disbursements of zakat is not on the same level as the collection process. Therefore, in this study Mobile banking (m-banking) is suggested as a proposal of the new distribution channel of zakat to the *asnaf*. Mobile banking features which are mobility, user friendly, cost-saving, anytime, and anywhere could be one of the solutions to tackle the issue of inefficiency in zakat distribution. On top of that, if mobile banking is applied for the distribution channel surely the collaboration between banks and zakat institutions is needed. There are bank's management that is focusing in the area of mobile banking. For example, Maybank is now focusing in the area of mobile banking because of the agenda of 'FinTech' which have tremendous industry opportunities as mentioned by Datuk Muhammad bin Ibrahim who is currently the Governor of Negara Malaysia. The application of mobile banking will not only help to strengthen the distribution method of zakat but also solve many challenges of income inequalities from the economic sphere of the social changes in terms of increasing urban and rural poverty.

As been mentioned in the earlier section, Mobile Banking can be operated in many ways such as SMS, Web, Online Banking and Apps that is provided by the Banks. Mobile banking can help to improve the zakat distributions in the following ways:

1. Credit verification
  - a. *Asnaf* (people who are eligible to receive zakat) often had problem where they had to verify whether they had receive the zakat from the Zakat Institutions. They had to call the zakat institutions and it takes a lot time. If it happens every time, it can be very annoying. With Mobile banking technology structure combined with Zakat system they could developed an SMS system that is specifically to notify the *asnaf* that they had receive the zakat.
  - b. An Apps also could be developed by the expertise of technology team from the Banks combined with expertise from zakat distribution management team. For example, through the apps just by entering the identification card no (IC) they can check and manage whether they had receive the zakat or not. If this matter could be resolve, it could possibly greatly benefit all the *asnaf*.
2. Technology development

There are cases of *asnaf* where they require financial help urgently and usually there will go to the Zakat institution to receive financial help in the form cash (if it's a financial matter). Thus, with the advancement of technology now days the zakat institutions could possibly generate a system message to the *asnaf* where it could be used to withdraw cash at the spot at any banks which are collaborated with the Zakat Institutions. This could be helpful in case of there is shortage of cash from Zakat Institutions side.

### **Mobile Banking Role in Financial Inclusion**

Financial inclusion is recognized and supported to be playing a critical role in developing and improving the economic and social conditions in developing countries. Literature reviews and previous studies undertaken encompassing theoretically, empirically and with evidence

suggested that financial inclusion has the potential to reduce absolute poverty, promotes growth. This is reflected amongst the aforementioned Millennium Development Goals (MDGs) as well (Chibba, 2008; Setboonsarng & Parpiev, 2008). Thus, by achieving Millennium Development Goals (MDGs) implied the viewpoint that social and economic growth and development can't take place if there is a large part of the society that is overlooked from the economic sphere in national planning. This is because through financial inclusion, the poor and low income person can enjoy access to finance at a reasonable cost, a safe place to keep saving and having more options to choose. The true purpose of financial inclusion is to promote inclusive development through socially responsible pursuit of globalization which reflects towards poverty alleviation.

Therefore for all these reasons, financial inclusion is important to serve as a means to address poverty alleviation and related issues of equity and access (Chibba, 2009). Furthermore, with the advancement of Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs) financial inclusion is important than ever in order to provide a better world for everyone.

In the early stage of use of financial technology (FinTech) and mobile banking adoption research in Malaysia, Amin et al., (2006) defined SMS-banking as banking transaction via mobile phone in the form of short message(SMS). Amin et al., (2007) further defined mobile banking as banking transaction such as checking balance, latest transaction and credit card transaction through mobile phone. Thye Goh et al., (2014), defined mobile banking to financial transaction such as checking account balance, bill payment and other financial services (p2p lending or p2p payment) done via mobile phone, tablets or any use of technological devices that have equivalent functions. Valentine (2011), further elaborated that the channel for mobile banking services can be categorized as 'triple play' which is through SMS-based, web-based and mobile Apps. For example, Maybank has Maybank2u apps for their consumer, CIMB bank has CIMB Click apps, and Bank Islam has Bank Islam i-info and TAP Mobile-banking-i. All these financial services innovation in Malaysia has given a lot benefit to the consumer by reducing cost and less time consuming.

According to Etim (2014), any financial activities that are conducted via mobile phone or mobile devices is generally referred as *mobile money*. This is supported by previous author (Porteous, 2006a; Weber & Darbellay, 2010a) which categorize mobile money into mobile banking (m-banking) and mobile money (m-payment). There are two models that are significant in the Sub-Saharan Africa (SSA) region which is the additive model and transformative model. The additive model allows the account bank users to use their mobile phones to access the bank account and other services provided such as checking account, balance, transfer fund, paying bills and others. While, the transformative model gives financial access to the *unbanked* towards financial products without bank accounts through mobile phones based on the services provided by the MNO's (Mobile network providers) and Microfinance Institutions (MFIs) (Porteous, 2006b; Weber & Darbellay, 2010b). An example of the transformative model is M-PESA. M-PESA is a mobile payment services that was formed by Safaricom and its parent organization, Vodafone in Kenya in March 2007. In Malaysia, the mobile payment (m-payment) service is still developing. For example, there are various mobile wallet payment services that are offered in Malaysia such as Visa Checkout, Masterpass, CIMB pay, Maybank pay, MOL Pay, Samsung Pay, and Alipay. However, most of these services offered require the person to have a bank account which is the contrast of M-PESA.

Mobile banking was proven to be playing a significant role in improving financial inclusion in other countries. For example, in Ghana, there are a large number of people who live below the international poverty line which is 1% and most of them do not have financial access to the financial product or services. However, through mobile banking about 90% of

the people now have financial access (Hinson, 2011). With mobile banking, the large population of Ghana now have financial access towards financial products just by using their mobile phones. This is very convenient for them, since most of them are living in a rural area and it is hard for them to go to the main cities just to have a financial access to their bank accounts and other financial services or product. On top of that Mago (2014), investigated the impact of mobile banking on financial inclusion in Masvingo province, Zimbabwe. Majority of the respondents found that mobile banking is benefited them even it has not been fully utilized yet. Furthermore, the significance of mobile banking to financial inclusion is threefold. Firstly, it provides financial access to the underserved population and unbanked location. Secondly, it will improve the regulatory and competition policy in the country itself. Lastly, it gives an insight on the fundamental concept of the services. However, there are still people who are not aware on the impact of mobile banking on sustainable growth and possible contribution towards financial inclusion (Atul Srivastava, 2013).

**Table 4: Internet and Mobile Banking Subscribers and Penetration rate in Malaysia**

Year	Number of Subscribers		Penetration rate to population (%)	
	Internet Banking (million)	Mobile Banking (000)	Internet Banking	Mobile Banking
2005	2.6	127.6	9.8	0.5
2006	3.2	246.7	12.0	0.9
2007	4.6	367.6	16.9	1.4
2008	6.2	574.6	22.5	2.1
2009	8.1	657.0	28.9	2.4
2010	9.8	898.5	34.4	3.1
2011	11.9	1,560.3	40.9	5.3
2012	13.7	2,446.2	46.4	8.3
2013	15.5	4,378.9	51.4	14.5
2014	17.6	5,639.2	57.5	18.4
2015	19.8	7,278.8	63.7	23.5
2016	22.8	8,944.7	71.9	28.3
March – 2017	24.0	9,624.4	75.7	30.4

Source: Bank Negara Malaysia (BNM), Malaysian's Payment Statistics, Internet Banking and Mobile Banking Subscribers (2017)

As shown in the table 4 above, the number of subscriber for mobile banking surprisingly is still low if compared to internet banking. Perhaps due to the reason that Malaysia is better wired than elsewhere. There is a 'usage' gap between internet and mobile banking in Malaysia. Report by Asia Institute of Finance (2016), also stated that the consumer in Malaysia still lack awareness on how the digital technology can offer and benefit them. Besides that, it was found that security and privacy concern are the top two drivers and inhibitor of digital banking adoption. From the above discussion, there are various views on the definition itself of mobile banking. However, for the purpose of this study mobile banking is defined as any financial transaction (checking account balance, paying bills, fund transfer and others) that could be done via mobile phone through all the channel (SMS-based, web-based, and mobile Apps) provided by the financial institutions.

## CONCLUSION

Overall, the government in Malaysia has done a very good effort in achieving the Millennium Development Goals (MDGs). However, there are still some unfinished business of financial inclusion that needs to be looked at such as eradication of extreme poverty and hunger, and B40 groups. With the introduction of Sustainable Development Goals (SDGs) which were further extended from the 8 goals to the 17 goals that cover various aspects thus far, further improvement is needed in order to provide a better world for everyone regardless of different socio-cultural background.

It was proven previously from the previous studies that mobile banking has been a tool of financial inclusion in other nations such as Sub-Sahara African Region, Bangladesh, India and other countries. The Financial inclusion is proven to be playing a vital role in achieving poverty alleviation and providing financial access. However, the era of Fintech has brought opportunity and therefore in this study financial inclusion is being made easy through mobile banking. This would be an application of technology innovation in the Islamic financial sector.

There is no argument otherwise that zakat management particularly helps in alleviating poverty in Malaysia. However there are still some issues that need to be addressed and eventually be improved. In this study, we focus on the zakat distribution channel method, so that it can be related with mobile banking. Therefore, in this study usage of mobile banking is suggested to be as the new channel for zakat disbursement method. However, it was found that particularly in Malaysia, the number of subscriber for mobile banking is very low compared to internet banking due to reasons mentioned in previous paragraphs that need to be surveyed and field based investigated in next phase of this empirical study. Thus, it is our recommendation that in the future studies on the factors that would influence the adoption of mobile banking for zakat distribution among *asnaf* need to be undertaken.

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