

## Conference Paper

# Exploring the Potential of Financial Technology (E-Money) in Akad Wadiah at Amal Usaha Muhammadiyah

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## Abstract

In digital era E-money becomes a growing trend because it provides many advantages and facilities, but then the question is who will be benefitted from the use of e-money. The aim of this research is to know how big the potential of E-money in Muhammadiyah by using SWOT analysis. This research uses descriptive approach to explore the opportunity of Muhammadiyah community who use E money as the tool of payment transaction by using akad wadiah. The Muhammadiyah community association is considered as population because it is the largest and the the oldest organization in Indonesia. This research proves that Muhammadiyah has a very big potential in the use of e-money. Based on SWOT analysis, the opportunities to use E-money in Muhammadiyah community is explained as follows: **Strength:** Muhammadiyah has very large community in Indonesia that reach remote areas. Muhammadiyah has a huge resources, which is very potential because it can use good cash management to utilize the funds based on high-end information technology with clear vision and mission. **Weakness:** A very big organization is usually slow in decision-making if any decision made by central organizing committee cannot force all the members to obey it. **Opportunities:** Muhammadiyah as a modern Islamic movement is well-known in Indonesia. The opportunities to make agreement with other instances is very widely-open. The public trust and expectation towards Muhammadiyah community is very high. Muhammadiyah has commitment, consistency and independency in its movement. **Threat:** difficulties in communication with remote area network.

**Keywords:** E-Money, Wadiah, dan SWOT Analysis

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## 1. Introduction

Muhammadiyah is the biggest socio-religious organizations in Indonesia, which always strive for amar ma'ruf nahi munkar. Muhammadiyah realizes its struggle through social activities, such as in education starting from kindergarten up to university. In health section Muhammadiyah has medical center, BKIA up to Hospitals. In social section, Muhammadiyah has other economic cooperations, orphanages, and so on.

The technology development in cash payment has changed cash known by society as means of payment into non-cash payment which is more effective and efficient

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(Suhaimi: 2018). The use of E-money will drive for public consumption and demand of goods and services which potentially push real sector of economy (Anam: 2018)

In India the use of e-money gives benefits and growth of economy up to 7.6% (Jayalakshmi and Verkateswarlu 2018). So is the case of research in Vietnam which shows that the risk and trust become the main structural roles in adopting electronic payment. The research model contributes 38% from electronic payment adoption (Nguyen and Huyuh 2018). In developing countries such as People's Republic of China, Singapore's E-money is used to pay in the retail level such as in purchasing soft drinks and snacks. The cellular payment method has been widely used in China and becomes the lifestyle. The giant mobile payment industry Alipay and WeChat have become the headline news in non-cash payment.

In Indonesia the outstanding electronic cards has reached 68,84 million units. It is eight times the number of outstanding electronic cards in 2010 as of 7.9 million cards. Such a big number of electronic cards certainly becomes the source of new income for the bank (Bank Indonesia: 2017)

The growth of online sales in Indonesia is 405 per year (Ernst & Young, 2015), and so the program made by Indonesian government, Go Digital Vision 2020. The target of Indonesia to be the biggest digital economy country in South East Asia with online achievement up to 130 US billion dollars with annual growth of 50% (Ministry of Foreign Affairs, 2017)

To face digital era or widely known as Industry 4.0, all millennial generations will use plastic money or e-money as the answer of the public need of micro instrument payment which is expected to be faster, more efficient and more secured (Bahri 2010). Nevertheless, E-money has some weaknesses, such as security issues, interoperability, unavailable balance refunding through cellular operator, and limited merchant partners for e-money transactions (Nur: 2013). Another weakness of E-money is that it is not saving, therefore it is not guaranteed by LPS (Usman: 2017).

Muhammadiyah has to play strategic role to give economic contribution in order to realize the ideas of KH Ahmad Dahlan, that is, to make people as entrepreneurs. This research deals with the use of E-money (electronic money) in daily life of Muhammadiyah followers.

From syariah viewpoint, electronic money is suitable with Maqasid Syari'ah, the clear agreement transaction, and also suitable with Islamic concept which ensure the compatibility of electronic money with the way to keep assets (حفظ المال) well (Muamar and Alparisi: 2017)

The existence of non-cash payment tools, not merely caused by innovation of banking sectors, but also driven by the public needs of practical payment tool which can facilitate the smooth transaction. On the other side, e-money also protects against fake money (Radiansyah 2016). This transaction facility enhances the decrease of transaction costs and in turn, it can stimulate the economic growth. (Sari 2015: 71)

The driving factor of Muhammadiyah community, especially for Amal Usaha Muhammadiyah (AUM) to use E-money as substitute of cash is that many E-money products have circulated in Indonesia. However, the use of e-money is still dominated by urban people who have high income (Hapsari: 2017).

Observing so many sectors of Amal Usaha Muhammadiyah, the very big potential needs academic research has to be conducted by Muhammadiyah to have E-Money.

## 2. Methods and Literature Review

### 2.1. Methods

This research uses the explorative method, analyzing the potential resources owned by Muhammadiyah community to have plastic or E-Money for each transaction in Amal Usaha Muhammadiyah (AUM) Community.

The topic discussed is about the potentials of E-Money for the Muhammadiyah community by using SWOT analysis approach, while the object of research is Amal Usaha Muhammadiyah. The technique of data collection is by using observation method, in-depth interview and documentation.

### 2.2. Literature Review

#### 2.2.1. The meaning of Amal Usaha (Charity Business)

Amal Usaha Muhammadiyah consists of several business sectors and da'wah supporting facilities to achieve the purpose and goals of organization in order to enhance and uphold the religious values to make the real Islamic Society come true. (Haedar.2017)

Muhammadiyah community has organization structure consisting of thirteen councils which is formed by the 46<sup>th</sup> Congress in Yogyakarta. Each council in Muhammadiyah has its own roles (Haedar 2017). One of the thirteen councils are economic and entrepreneurship council which have the following roles:

1. To create the blue print of the new economic development to evaluate and design efficient and effective community development
2. To develop the model of economic development based on self-empowerment as the realization of community aims to stand on its own feet..
3. To confirm the partiality of Muhammadiyah towards economic sectors that build up small economic community through alternative economic activities.
4. To create the stronger, organized and systematic syaria economy.

### 2.2.2. Mechanism of e-money transaction

Explanation of the e-money transaction mechanism among customers, and between customer and the bank can be described as follows (Bank Indonesia 2000)

1. "A" purchases e-money card with certain amount he or she wants by instructing the bank to debit his or her account for this purchase.
2. Based on this instruction, bank debits "A" account and credits escort account and at the same time inputting "electronic value: in e-money card to be given to "A"
3. Then "A" makes transaction with "B" using e-money. Based on this transaction "electronic value" will then transfer from "e-money" card of "A"s to e-money card of "B"s through card reader mechanism. In some cases. "B" is enabled to use 'electronic value' he or she gets from "A" to make transactions with "C", the third party. But, in other cases, e-money can only be used to make payment from e-money holder to the merchant, where the merchant then just deposit his or her "electronic value" to the bank.
4. "B" or "C" some time can store the 'electronic value' in e-money card in the bank.
5. Based on the above deposit, bank will make verification, then credit "B" or "C" account and debit the escort account. On the above illustration, all parties involved in the transactions (A, B and C) is the customer of the same bank which issues the e-money.

### 2.2.3. E-Money (Plastic Money)

Money is a medium of exchange in economy. Money can make exchange of goods and services easier (Hasan, Ahmad 2005). Money is legal medium of exchange or value

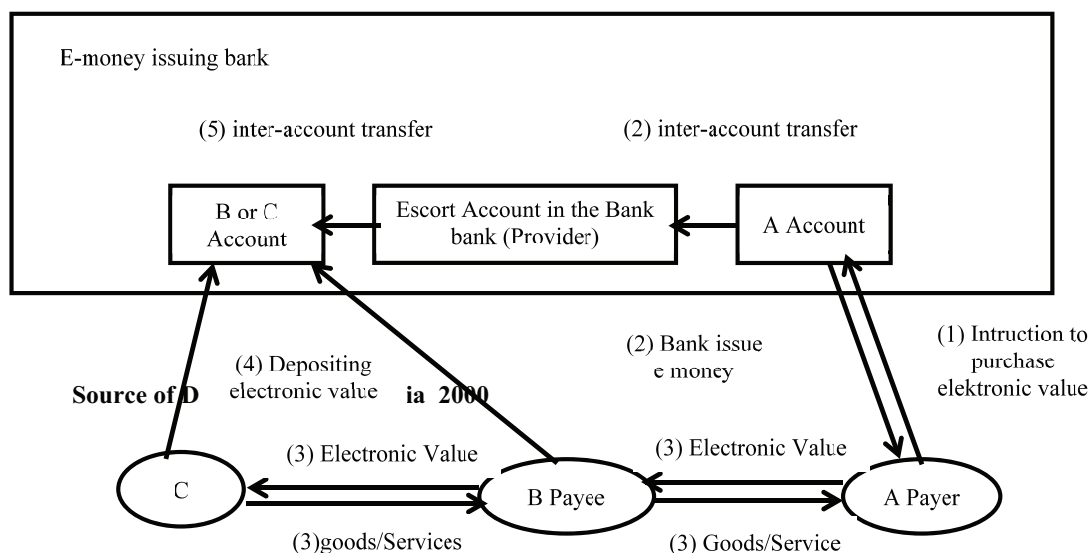


Figure 1: Framework (Source of Data: Bank Indonesia 2000).

measurement (unit of measurement) issued by the government of a country in the form of paper, gold, silver, or other metal printed in particular form and picture.

Electronic Money is medium of payment which meets the requirements, such as (1) issued based on the value of the money deposited by the holder to the issuer, (2) the value of money stored electronically in a media such as server or chip, (3) medium of payment to the holder who is not the issuer of the electronic money, and (4) the value of money stored is not intended as saving as stated in the bank regulation (Bank Indonesia:2014)

Electronic money (e-money) is literally defined as electronic storage of monetary values in some technical tools which can be widely used to make payments to other entities except the e-money issuer. The tools act as prepaid carrying instrument which does not need to involve the bank accounts in transaction (According to Kabir as quoted by Xena and Rohayadi: 2019)

E-money is the value stored or prepaid product in which the records of funds or values available for consumer is kept in electronic tools under the consumer ownership (Hidayati: 2006). The regulation of E-Money is subject to the Financial Services Authority of Indonesia (OJK) regulation number 25/POJK.03/2016 about the changes of regulation of the Financial Services Authority of Indonesia (OJK).

The regulation describes the supporting policy of financial services industry to enhance the repatriation of funds inflow and place it in banking, among others through the Trust.

Related to the above matter, it is required to update the Regulation of Financial Services Authority Number 27/POJK.03/2015 about Banking Activities in the form of safekeeping of Trust.

To make people accustomed to the use of e-money in transactions, it is important to carry out socialization and education. Based on the research, it is known that financial literacy has positive impact on the attitude of non cash transaction. This attitude in turn will have positive impact on the intention of cash transactions (Cotradika.DidhaPutri: 2019)

Interesting issue is about the security perception, that is, feeling secured when someone is using electronic money since it will be more difficult to lose money because the system can trace the expenditures and minimize potential of theft and robbery (Xena and Rahadi: 2019)

E-Money itself in Islam is considered as akad Wadiah in which the deposit fund of the card owner given to the card issuer as the replacement of fund which has been stored in this E-Money. Wadiah means pure deposit (amanah). Wadiah means Amanah (Nurhayati, Sri and Wasilah. 2015: 254)

Agreement (Akad) which use electronic money is Akad Wadiah yad Amanah because in this agreement all funds from E-money cannot be used by the management without permission from the owner of E-money card and if one day it will be fully withdrawn, the management is obliged to return all his or her funds without lessening the balance value of expenses and cannot give bonus for surplus of fund from that E-Money. While the parties involved in E-Money transactions are the owner of E-Money card, bank partner(s) and partner(s).

#### **2.2.4. SWOT Analysis**

SWOT analysis is the process of identification of several factors systematically to determine the appropriate formula to implement the company strategy in its best format. This analysis is based on the logics that can maximize the existence of strength and opportunities. But at the same time, it can also minimize the weaknesses and threats. The strategic planning needs analysis of SWOT in the organization and company circumstances at this time. (Rangkuti, Freddy 2009)

### 2.2.5. Close and Open Loop

Close Loop is the system which does not interact and is not affected by its circumstances, and works as to the fixed pattern causally (one day this system will be affected by its circumstances) (Kambey 2010). Muhammadiyah has very large community who can apply E-money by using this Close Loop system in all its communities in Amal Usaha Muhammadiyah

The followings are some examples of community which have applied Close Loop system:

1. The purchase of food and beverages at Food Court in Gandaria City Mall uses e-money card, especially in Food Court area there is no cash payment transaction. When a customer does not use cash as his or her medium of payment. When the customer does not use the card anymore, the remaining balance can be refunded.
2. The purchase of game voucher in the areas, such as Time Zone, Amazing, Amazon, and so on. These areas obliged the customers to purchase E-Money card with certain nominal amount which has included the available amount for the game and its usage time can be extended. The available amount can be used to play the game the customers want and its balance will be automatically deducted based on the rate of each game.
3. The usage of E-money in the Campus of Muhammadiyah University, Yogyakarta (UMY) has been used for canteen transactions, parking, transactions in the stalls nearby UMY Campus. All civitas academics have used the application connected to E-Money.

### 2.2.6. OPEN LOOP

Open loop is a system which continually related to its outer circumstances (interrelation) and affected by its circumstances. So that it can transfer and receive information, energy and materials from its circumstances.

But if open loop system is used, Muhammadiyah has to meet some criteria which should be proposed to Financial Services Authority (OJK) and Central Bank (BI). The advantage of Open Loop is that E-Money card is used not only in Muhammadiyah society, but also in the public facilities in Indonesia. The followings are the examples of *open loop* and *close loop*:

1. Toll Payment uses E-Money in Indonesia (E-Toll Mandiri, Flazz BCA, Alfamart Card, Pay Tren)
2. Payment of railway, airplane and buses tickets use E-Money or application of other Cash Money (T-Cash Telkomsel, Go-Pay, Ovo, etc)
3. Payment of telephone bills, electricity, PDAM, tuition fees (Debit Card, Credit Card, I-Banking, Tap Cash, Pay Tren, etc)
4. Purchase of handphone credit, electricity token credit, online game credit (T-Cash, Flazz BCA, Tap Cash, etc)

### 2.2.7. Akad Wadiah

In banking industry, akad wadiah can be applied to the savings and current account. General provisions of Saving based on Wadi'ah: 1. Saving in particular, 2. Savings can be withdrawn as conditioned, except in the form of giving ('athaya' which is voluntary from the banking sector (Fatwa DSN No. 01/DSN-MUI/IV/2000)

Based on PSAK 59 Wadi'ah is a customer deposit which should be kept and return anytime the customers want, and Bank is responsible for this return)

Wadi'ah (عقارى مد) literally means deposit, leaving (حشك) or trust (ألماوت).. Wadi'ah means placing something not under its owners' maintenance. Akad Wadi'ah is an agreement (akad) which has social value in the society.

Al Quran Ali Imran verse 75 states that:

وَمِنَ أَهْلِ الْكِتَابِ مَنْ إِذَا تَأَمَّنَهُ بِقَنْطَارٍ يُؤَدِّهِ إِلَيْكَ وَمِنْهُمْ مَنْ إِذَا تَأَمَّنَهُ بِدِينَارٍ لَا يُؤَدِّهِ إِلَيْكَ إِلَّا مَا دُمْتَ عَلَيْهِ قَائِمًا ذَلِكَ بِأَنَّهُمْ قَالُوا لَيْسَ عَلَيْنَا فِي الْأُمِّيِّينَ سَبِيلٌ وَيَقُولُونَ عَلَى اللَّهِ الْكَذِبَ وَهُمْ يَعْلَمُونَ

Among the people of the Book are some, to one of whom if thou entrust a thousand dinars, he will restore them to thee: And there is of them to whom if thou entrust a dinar, he will not restore it to thee, unless thou be ever instant with him. This – because they say, “We are not bound to keep faith with the ignorant folk, and they utter a lie against God, and know they do so:”

Pillars that should be fulfilled in the transactions using wadi'ah principle is as follows:

1. The goods deposited, 2. Person who deposit, 3. Person who receive deposit. 4. Ijab qobul

In Islam Wadi'ah can be classified into two types, 1) Wadi'ah yad Amanah where goods deposited cannot be used by those who receive deposit, so that the receiver



is not responsible for the risk of deposited goods. The receiver only has to return the deposited goods when asked by the person who deposit as it should be.

Wadi'ah yad Dhamanah is a deposit of goods that can be used or utilized by the receiver, so that he or she bears the risk if there is something happen when he or she uses it, such as the risk of damage, etc. Certainly the receiver of deposit is obliged to return the deposited goods when the lender asks for it. (Trisandini et al: 2013)

### 2.2.8. Mind Frame

The Mind frame is logical mind costruction with scientific arguments as the condition of doing the research. This research uses the relevant theories and concepts to be theoretical foundation. The literatures designed is initiated with the concept of Amal Usaha Muhammadiyah, electronic or plastic money, SWOT analysis.

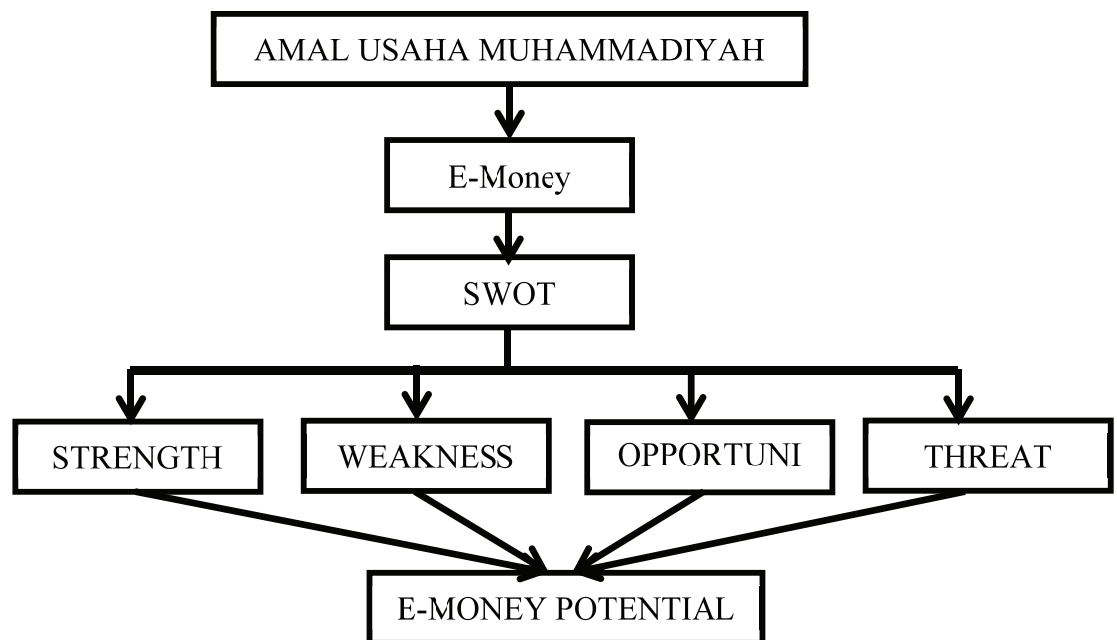


Figure 2: Theoretical Mind Frame (Source: Researcher).

## 3. Results

In recent digital era, Muhammadiyah can use E-Money for every transaction in Amal Usaha Muhammadiyah community. The research uses SWOT analysis approach.

Potential means the ability which enables the possibility to develop. Looking at the potential of E-Money in Amal Usaha Muhammadiyah is likely to be used. However, education is needed to make Muhammadiyah community familiar with e-money because

it has positive impact on the understanding of E-Money towards interest to use it in the typical society. (Vhistika 2017). Below is the estimate of community owned by Muhammadiyah community.

TABLE 1: The List of Names, Number and Groups in Amal Usaha Muhammadiyah.

No	Name of AUM	Number	Estimate of community	Number of community
1	TK/PTQ (Kindergarten)	4,623	100	462300
2	SD/ MI (Elementary School)	2,525	1000	2525000
3	SMP /MTs (Middle School)	1,111	1000	1111000
4	SMA/SMK/MA (High School)	1,291	1000	1291000
5	Pondok Pesantren (Islamic boarding school)	67	500	33500
6	Universities	171	5000	855000
7	RS /RB/BKIABP	2,119	500	1059500
8	Panti Asuhan (Orphanage)	318	100	31800
9	Panti Jumpo (Nursing home)	54	100	5400
10	Rehabilitasi Cacat (disable rehabilitation)	82	100	8200
11	SLB (School for Exceptional Children)	71	100	7100
12	Mosque	6,118	25	152950
13	Mushalla	5,080	25	127000
	Total	23,630		7,669,750

Source <http://www.muhammadiyah.or.id> re-illustrated

Assume if the balance of E-money in Amal Usaha Muhammadiyah starting from kindergarten up to Universities, hospitals, orphanage totalling 7,669,750 units X Rp 50,000 = Rp 383,487,500,000.- (three hundred eightythree billions four hundred eighty seven million, five hundered thousand rupiahs) can be retained, meaning Muhammadiyah will have the potential of fresh fund to manage.

If Muhammadiyah uses Open Loop system, the very big opportunities is available for Muhammadiyah community and also for those in public sector.

Based on interview with some competent informants who are familiar with Muhammadiyah. The use of SWOT analysis is described as follows:

### 3.1. Strengths

1. The very big community in Indonesia
2. Amal Usaha Muhammadiyah is a very huge resources

3. Ability to use good Cash management in managing funds
4. Better fund management by using sophisticated and modern IT (Information Technology) development
5. Having crystal clear vision and mission in organization

### **3.2. Weaknesses**

1. Decision making is not necessarily subject to Muhammadiyah top management
2. Fast development of charity business in quantity is not followed by the meaningful quality progress
3. Human resources quality and facilities which is not equal among Amal Usaha Muhammadiyah
4. This Close Loop E-money system is only valid in Amal Usaha Muhammadiyah.

### **3.3. Opportunities**

1. The moslem largest community in Indonesia
2. Muhammadiyah as modern Islamic movement which has been well known all over Indonesia.
3. Mutual agreement opportunities in various instances are open wide
4. Public trust towards Muhammadiyah community is very high
5. Public expectation towards Muhammadiyah community is very high

### **3.4. Threats**

1. Very tight competition from several e-money card issuers.
2. Very fast Financial Technology progress
3. The support of regulation from OJK is not yet available for Muhammadiyah

## 4. Discussion

Amal Usaha Muhammadiyah has applied Financial Technology, for instance, Muhammadiyah University Yogyakarta, where all civitas academics have used e-money cards as a means of payment in the scope of campus by using close loop system. The next step will be followed by ITB Ahmad Dahlan Jakarta which will be the second pilot project campus using E-Money as means of payment. All civitas academics, such as lecturers, students or employees will use e-money card.

The idea to use e-money in the Persyarikatan Muhammadiyah circumstances has commenced since 2014. Muhammadiyah has signed MOU with the subsidiary of Perum Peruri, PT Peruri Digital Security (PDS) as intial step to the program of electronic money or E-Money in Muhammadiyah community. PT Peruri Digital Security (PDS) acts as partner who print out E-Money cards for Muhammadiyah.

It is a pity that until now the MOU has not yet been realized well due to some requirements of Bank Indonesia (BI) and Financial Service Authority (OJK) which are not fulfilled by Muhammadiyah to realize the use of E-Money cards

## 5. Conclusion

This research is intended to explore the potential owned by Muhammadiyah to have E-Money in the circumstances of its charity businesses. SWOT analysis use used as the tools to analyze it. The findings are classified as to the Strength factor, that is, Muhammadiyah as the largest and established organization in Indonesia has the potential to use e-money card, while its weaknesses are due to the complicated and slow decision makings. The opportunity factor is that Muhammadiyah is well known in Indonesia, so that it gives high expectation and trust towards Muhammadiyah community. Nevertheless, the Threats faced by Muhammadiyah community is ptofessionally run conglomerate companies.

## Funding

The result of this research is expected to be considered by all stakeholders of Muhammadiyah community to decide using E-Money. To all decision makers, such as Bank

Indonesia and Financial Services Authority, it is expected to give special treatments as the requirement to run e-money cards.

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