CHAPTER II

LITERATURE REVIEW

A. Theoretical Basis

1. Payment System

a. Definition of Payment System

Based on UU Bank Indonesia No.23/1999, payment system is a system that includes a set of rules, institutions and mechanisms, which are used to carry out the transfer of funds to fulfil an obligation arising from an economic activity. Refers to Bank Indonesia, System payment is one of the cornerstone things to run the monetary policy. According to Bank Indonesia stated that system payment is the system related to transfer the certain amount of money from one party to another party. There is much diversity of media used to transfer money. Started form the use of simple payment instruments to the use of complex systems and involving various institutions and the rules of the game.

The authority to regulate and maintain the smooth payment system in Indonesia is carried out by Bank Indonesia as outlined in the Bank Indonesia Law. Thus, in order to achieve the goals BI refers to four principles policy regarding payment system, comprise of safe, efficiency, equal access, and consumer protection. Safe means free from all the risks comprising liquidity, fraud, credit that can be managed and mitigated by payment system organizer. Efficiency principal emphasizes that the operation of the payment system must be widely used so that the costs borne by the public will be cheaper because of the increased economies of scale. Moreover, equal access principal implies that Bank Indonesia does not permit monopolistic practical in implementing a system that can prevent other players to enter. Lastly, to ensure all the organizer of system payment must consider consumer protection. Meanwhile, in relation as an institution that circulates money, the smoothness of the payment system is manifested by the preservation of the amount of cash in circulation in the community and in conditions that are worthy of circulation or commonly referred to as clean money policy.

b. Regulation of Payment System

All forms of regulations are regulated in the law of Bank Indonesia. BI regulation number 21/10/PBI/2019 regulates about the management of money. As money that can be circulated and transacted in Indonesia is in rupiah currency. In other hand, the regulations regarding electronic money already is set in law Bank Indonesia number 20/6/PBI/2018.

c. Types of System Payment in Indonesia

In Indonesia, the only payment legalized is rupiah. Yet, there are many tools approved by government. Since, we live in millennial era and industry 4.0 so that there are several instrument tools that can be used as a tool of payment, namely cash and non-cash.

1) Cash Payment System

In this era, society can choose either they want to use cash or electronic money as long as it is rupiah Currency. Each instrument has positive and negative impact. It based on the willingness to pay, and cash payment in Indonesia is still preferred among society.

Cash payment consists of two kinds, namely real money and demand deposit. However, real money is used frequently transected for lower transaction volume by using paper money and coin. Due to the procurement and management of cash holdings have cost tend higher, the government encourages to go through cashless era.

On the other hand, the fact in the real situation occurs differently. It shows that there is 682, 2 trillion real money circulating as of July 2018 in the form of banknotes reach IDR 673, 2 trillion and IDR 8, 96 in the form of coin (Databoks, 2018). It indicates that although the government maximizes implementing of non-cash, the amount of real money in circulation still dominates. Thus, cash is the most established and widely used payment instrument in worldwide.

2) Non-Cash Payment System

Technology advance brings a form of financial innovation to non-cash and become a public interest to use it. It shows that not only bank can issue e-money but also other financial institutions both state owned enterprise and private. As types of non-cash according to Bank Indonesia consists of; card, demand deposit, cheque, debit notes, and electronic money.

According to Bank Indonesia, electronic money defines as the payment instrument fulfils the following elements:

(a) Issued on the basis of the value of money deposited in advance to the issuer;
(b) The value of money is stored electronically in a media such as a server or chip, and
(c) The value of electronic money managed by the issuer is not a deposit as referred to in the law governing banking.

As the government puts the regulation in Bank Indonesia Law, number11/12/PBI/2009 regards electronic money. The forms of electronic money categorize as chip and e-wallet. chip comprises such as sakuku, e-money, Brizzi, etc while e-wallet comprises such as Go-Pay, Grab-Pay, OVO and etc.

d. The Advantages and Disadvantages of System Payment

Table 2.1

Advantages and Disadvantages

	Advantages	Disadvantages
Cash	- Manageable - Less of debt risk - Accepted in everywhere - Inclusive - Flexibility - Still use in worldwide	- Easy to be stolen - Cost of printing money - Inflation
Non-Cash	- Efficient - Transparence - Can be used in overseas - Faster transaction	- easy to attract debt - non-available in every store - charge for transaction – consumptive behavior

Source: World Cash Report

e. Functions of Money

Commonly, the meaning of money is the measure of how much our wealth. It is a stock concept where represent a certain amount at a given point in time. Thus, money is distinguished from wealth and income. Money has here primary function in any economics:

1) Medium of exchange: money is used as medium of exchange in the form of currency or check. It promotes the economic efficiency by minimizing the time spent in exchanging the goods and services.
2) Unit of account: it refers to measure the value in economy. For instance, it can be used to give the price in the goods and services.
3) Store of value: it refers to preserve purchasing power of money from the time income received until the time it is spent. Yet, the problem1 of store of value is money can lose the intrinsic value due to the inflation.

2. Money Based on Sharia Law

According to Al-Ghazali on (Saidy, 2017), money defines as the goods or things that the function is to get another goods. In Islamic concept, money is not able to be as commodity. It is prohibited because the value of money is same. There is no tradable money in sharia law. It based on the holy Qur'an and Hadith source. This is related to the prohibition of usury. It means that the additional or diminution. Moreover, in Islamic concept, there is no speculation because it can diminish the flow of money. As mentioned in hadith;

الذَّهَبُ بِالذَّهَبِ وَالْفِضَّةُ بِالْفِضَّةِ وَالْبُرُّ بِالْبُرِّ وَالشَّعِيرُ بِالشَّعِيرِ وَالتَّمْرُ بِالتَّمْرِ وَالْمِلْحُ بِالْمِلْحِ مِثْلاً بِمِثْلٍ يَدًا بِيَدٍ فَمَنْ زَادَ أَوِ اسْتَزَادَ فَقَدْ أَرْبَى الآخِذُ وَالْمُعْطِى فِيهِ سَوَاءٌ

"*if gold is sold with gold, silver is sold with silver, wheat is sold with wheat, sya'ir (a type of wheat) is sold with sya'ir, dates are sold with* *dates, and salt is sold with salt, then jumah (quantities or scales) must be the same and paid in cash (in cash). Whoever adds or asks for additional, then he has made usury. The person who takes the addition and the person who gives it are both in sin*". (HR. Muslim no.1584)

According to Islamic economics explanation, money is considered as media of exchange not as commodity. Hence, Islamic economics defines money as something that can measure price of goods or services. The functions of money purpose to ease human being in transaction, this is to eliminate injustice and tyranny in economic exchange. Therefore, Islamic studies support function of money as medium of exchange, because the Prophet Muhammad Saw opposed the prevailing barter unfairly. As mentioned in Hadith;

حَدِيثُ أَبِي سَعِيدٍ رَضِيَ اللَّهُ عَنْهُ قَالَ : جَاءَ بِلَالٌ بِتَمْرٍ بَرْنِيٍّ فَقَالَ لَهُ رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ مِنْ أَيْنَ هَذَا فَقَالَ بِلَالٌ تَمْرٌ كَانَ عِنْدَنَا رَدِيءٌ فَبِعْتُ مِنْهُ صَاعَيْنِ بِصَاعٍ لِمَطْعَمِ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ فَقَالَ رَسُولُ اللَّهِ عِنْدَ ذَلِكَ أَوَّهْ عَيْنُ الرِّبَا لَا تَفْعَلْ وَلَكِنْ إِذَا أَرَدْتَ أَنْ تَشْتَرِيَ التَّمْرَ فَبِعْهُ بِبَيْعٍ آخَرَ ثُمَّ اشْتَرِ بِهِ

"From Abu Said r.a, he said: "Once upon a time, Bilal came to the Messenger of Allah (saw) with Barni's date. Then Rasulullah SAW asked him, "Where are these dates from?" Bilal replied, "Our dates are of low quality. Therefore, I exchanged two bushels for one bushel of these dates for the food of the Prophet (PBUH). "So the Prophet said, this is called usury. Never do it again. If you want to buy dates (the good ones), sell

your dates first (the ones that are not good), then with the sales money, buy a better date."

Consequently, money bases on Islamic view as medium of exchange in order to eliminate injustice in economic exchange. Because within the economic exchange system exist injustice, and it is part of usury *al-fadhl* which prohibited in Islam.

3. Theory of Money

a. Money Demand

The economist stated his thought regarding money demand. It divided into two parts, particularly:

1) Theory of Liquidity Preferences (Keynesian theory)

Based on Keynesian explained that there are three reasons why people hold money. It is because:

a) Transaction motive

People hold money inasmuch as they want to purchase stuffs. For instance, people want to buy pencil in the grocery store then they need cash in order to pay the price.

b) Speculative motive

This motive explains that people hold money in order to get more profit in the future. For instance, today, the price of oil is decreasing and people buy it when the price is increasing then they sell it in order to get the profit.

c) Precautionary motive

People hold money in order to anticipate in the future. Inasmuch as nobody knows his or her destiny. For instance, five years ahead, they get accident and need to be surgery. They can use that money to pay the surgery.

2) Theory of Quantity (classical economic)

In this theory, the classical assumption discuss about the supply and demand of money. Emphasize money from quantity side. The eminent of this classical theory goes to David Ricardo and Irving Fisher.

3) Theory of Consumer Choice

To choose either using cash or electronic money is based on the customer. Inasmuch as depend on their preferences. People will seek for the utilization from what they choose. According to economists, R. G. D. Allen and John R. Hicks, indifferent curve is some kind of crucial tool that can represent the ordinary measure of the taste and preference of the consumer. Moreover, to showw how they spend their income. Meanwhile, the function of indifferent curve is to show the various combinations of two commodities that give the consumer equal satisfaction.

Consumer’s taste can be examined by ordinary utility and an ordinary measure of utility has three assumptions;

a) Firstly, we assume that when faced with any two baskets of goods, the consumer can determine whether he or she prefers good A to good B.

b) Secondly, we assume that the tastes of the consumer are consistent or transitive

c) Thirdly, we assume that more of a commodity is preferred to less; that is, we assume that the commodity is a good rather than a bad, and the consumer is never satiated with the commodity

Those illustrations show between select methods of payment such as using cash or electronic money instead of goods.

4. Manageable

Manageable is an adjective, which means that it is easily managed, taken from the nouns, namely management. According to (Taylor, 1992) stated that management is the art of knowing what you want to do and then seeing that it is done in the best and cheapest way. Moreover, according to Henri Fayol (1841-1925) mentioned there are five managerial activities, which planning, organizing, commanding, coordinating and controlling. There are six basic business activities; technical, commercial, financial, security, accounting, and managerial.

Therefore, these six basic activities, this research will focus on financial business activities. It is because cash is part of financial. (Soaga, 2012) explained that cash is required to meet vital purposes of transaction, precaution, and speculation. Organisation or could be said as individual or household should be able to pay for required goods/services as the need arise to meet transactionary purpose, make provision for unforeseen circumstances that could arise to be precautious, and be able to take advantage in order to unticipated speculations. Cash to every organisation is like blood to every human being because cash is ultimate and is the liquid asset. Effective and efficient management for cash is essential for the survival and growth of organisation. Good cash management can reduce the finance cost of the organisation and reduce expenses in general because of timely allocation base on precedence items.

Therefore, the variable of manageable is very important to measure how impactful this into the cash usage. Because through this variable, it can be seen that whether the individual or community will consume as the transaction motive only in order to buy the daily needs or they do not pay attention for cash management to manage their expenditure.

At the other hand, the existence of electronic money makes people using it to purchase goods and services. Through e-money society buy the goods and only tap the card and transaction is done. However, e-money usage is risk for the user because they cannot handle how much of their spending. It affects society psychics because it can result dissipation. Thus, handling cash is more comfortable and more manageable for user because they can realize and know their spending.

Thereby, cash management is become one of the reasons why society still prefer cash. Cash management is the process of collecting and managing cash flow both individual and company. For individual, it is essential for financial stability to manage wealth portfolio especially in households.

5. Flexibility

Flexibility is a characteristic of a process that measures how long (time) a process changes to produce different outputs or by using a different set of inputs based on (Gazperz, 1997). With the non-cash instruments offered by the government, it will test how long the community needs a process to be able to transform from the period of using cash to cashless society. However, to achieve this output, supporting infrastructure is needed.The breakthrough of digital payment is rapidly increasing. It starts from electronic money until financial technology, where people can lend money to the lender though they do not meet each other. However, there were still over 13 billion cash payment, cash is still important as a store of value both in united kingdom and overseas (Ceeney, 2019).

According to the (Ceeney, 2019) research, most likely the population in United Kingdom prefer to use cash. Majority 34% from

100% is because like to have a choice when paying for things and 6 % is because of they want to protect their privacy (in this case, they do not want to leave spending record on internet). The are several implications from cashless society would have based on the UK population believe in, one of them is 79% say people who do not have access to good internet connection will lose out.

On the other side, though the spread of digital payment almost in every area, there are still lack of institutions or store that does not access electronic money to shop. Only accept cash usage. In addition, the internet connection is not really supporting for the rural areas especially `in Indonesia supported by Indonesia mostly is rural areas. Furthermore, the grocery and convenience store only accept cash as the store of value. How could the society transform into cashless society if most of the store still does not provide the system itself. It is kind of lack of penetration technology. Besides that, In the United Kingdom research found that 76% of convenience store customer paid by cash.

Provided there are good internet connections and majority people know using digital payment in Indonesia probably they will consider that things. As mention by (Ceeney, 2019), digital payment system depend entirely on good connectivity where no connection is no payment. The infrastructure is really becoming barrier for digital payment. Similarly, there are many people are not able to rely on cards and digital as their only way to pay.

6. Transaction Volume

Transaction volume is the total number of transactions processed from, to or through goods and services. Numerous previous papers have shown that transaction size is highly correlated with the choice of payment instruments (Arango, et al, 2011). As the number of transaction volume is part of the total quantity of purchases of goods.

According to (Simonson 1990), suggested that the amount of purchases have systematic effect on various product that likelihood chosen by the consumer. Specifically, Simonson proposes that, when consumers make multiple purchases in a category for a long period, uncertainty about future preferences and the difficulty of choosing among alternatives increases the tendency to choose different items.

Based on the explanation above, it can be explained in a briefly that transaction volume become one of the shreds of evidence for cash usage. In which is one form of money demand that is included in Keynesian theory, namely a form of transaction motive, where it is used to make a purchase of goods so then need cash to pay.

Therefore, it can be concluded that the transaction volume that can be seen from the quantity purchase of the community in shopping is one of the factors why people hold cash to make payments. The community will determine to use the payment method depending on the amount of the transaction volume or quantity of purchases they buy. As stated (Schmidt, 2016) that Germans dominate cash payments when shopping both small and large transaction volumes, because most of the convenience stores or grocery stores do not provide tools for non-cash payment systems..

7. **Charge for Non-Cash Payment**

According (Machfoeds, 1996) stated that charge or cost is the burden on income because the company uses available economic resources. In addition, according to (Mulyadi, 2000) charge definitions are divided into two, in broad and narrow meanings. In the broad of sense, the cost is the sacrifice of economic resources measured in units of money that have occurred and is likely to occur for a particular purpose in accordance with needs while the definition of cost in the narrow sense is as a sacrifice of economic resources to obtain assets. From the definition of these costs, there are four main elements, namely:

a. Cost is sacrifice for economic
b. Measured in units of money
c. Happened or potentially will happen.
d. The sacrifice for certain purpose

Imposition charge for non-cash user becomes one of the reasons why society still prefer using cash in their transaction. The either non-cash-debit or e-money usage are imposed with additional charge on every transaction. When debit card swept and it does not match with EDC machine, is imposed charge. So do electric money imposed charge for top up balance. Those contrast with cash payment that has no charge for every transaction.

B. Previous Research

In this research, the author makes previous research as guideline and orientation to research the variable that is used within this model although not many Indonesia researchers analyze determinants of cash usage to be researched in Indonesia. The variables are manageable, flexibility, transaction volume, and charge for non-cash payments for cash usage. The research variables in this model are taken entirely from international journals, due to the limited source of journals in this variable in Indonesia.

The research regarding analyze the influence of manageable towards cash usage already researched by (Kresnawati, et al, 2018). This data research was conducted through a laboratory experimental design involving 76 female santri. Afterwards, the data will be managed by using quantitative approach, which is ANOVA. As a result, the number of purchases using debit card is large compared using cash, and the number of donataions is larger by using debit card than using cash. The same result also already found by (Soman, 2018) stated that consumers who shop using a credit card will feel a sense of loss "or pain" of spending money will feel smaller than using cash so they find it difficult to control the expenditure. Moreover, it is in line with (Jati, 2015) stated that electronic money encourage the society to behave consumptively.

Related research that analyzes the flexibility factor on the use of cash has been conducted in the cash world report (Rosana, 2018). This report is taken from almost all over the world which consists of six continents (Africa, Asia, Europe, North America, South America, and Oceania) subsequently use primary methodology used for this report is desk research of available public sources. Furthermore, a questionnaire was developed and sent to G4S provides cash management service. As a result, it explained that cash is flexible because it is easy to use which does not require about account or device by either party to complete transaction. Therefore, everyone can use cash and it is very simple. As a variable flexibility research also has a positive effect on e-money, which is measured by ease of use (Pratiwi & K. Dewi, 2018).

The other previous research regarding transaction volume has been conducted by (Lyold, et al, 2016) that use access to commercial as “Big Data” inside China capturing the demographics and consumption of millions of consumers across a wide range of physical and digital market channels. Then the results suggested that when transaction volume is lower, consumer prefer to use physical payment compared to transaction volume is higher, digital payment is preferred. This result is supported with another research by (O'Brien, 2014) found that the amount of the purchases affect their propensity to use cash. If transaction less than $20 then probability using cash increase 91%, when transaction is greater than $20 then probability decrease to 57%. It is in line with the result found by (Bagnall, et al, 2014)

However, there is a difference result that conducted by (Schmidt, 2016) found that in most of the countries, consumers mainly use cash for smaller transaction amounts of less than 10 euro or $10 dollars but in Germany, almost 40% or larger purchases with the value equivalent more than $ 40 US dollars are made in cash.

Moreover, the other research analyzes the factor of charge for non-cash toward cash usage already conducted by (Arongo, et al, 2017). This research uses quantitative method so that produce findings that the existence of incentive such as cost of card and differences in ATM withdrawal cost are the key factors explaining why cash is still remaining top of wallet across many developed economies. The same result also found by (Alonso, 2018) told that the fees charged for the use of cards therefore being willing to use cash for everyday transaction rather than using card. However, this study is contrast with the results of research conducted by (Shirgaokar & S. Agowall, 2019) who found the results that the debit card gives a lot of benefits such as a low maintenance charge.

On the other hand, the author also conducted pre-research by observing and interviewing directly the society of Yogyakarta who shop in four big markets in Yogyakarta. The result showed that from overall, there is 67% out of 100 people still prefer using cash as system payment to pay their purchases. They still use cash because it is simple, and to pay their daily needs.

C. Hypothesis

Hypothesis is temporary findings needs to be proved. It is called as conclusion because it is from theoretical study activities that have been carried out by researchers before the implementation of research Based on the research background, literature review and previous studies can be proposed hypothesis in this research, videlicet;

1. The influence of manageable towards cash usage as the system payment among Yogyakarta society

Manageable and cash usage have linkages each other. It can be beheld through the fact using non-cash that can encourage the society to be more consumptive, due to many discount and promo offered to the digital payment users. Thereby, they cannot control their expenditure when do transaction.

According to (Hirschman, 1979) stated that within his research, actual transactions in shopping in order to test individual behavior when they go to shop, the results suggest that consumers who shop using a credit card will spend more money on shopping than consumers who use cash or checks to shop. This statement also is supported by (Soman, 2001) tells that the consumer who pay by using credit card tend to comply with their willingness to buy item that does not include in the item lists planned and needed before.

Furthermore, according to (Kresnawati, et al, 2018) found that the number of purchases by using debit card will be much more rather than using cash, then the results of the second hypotheses say that consumers will have a greater amount of donations if using a debit card compared to cash.

The first hypothesis: Manageable positively influence against the cash usage

2. The influence of flexibility towards cash usage as the system payment among Yogyakarta society

Flexibility and cash usage have linkages each other because indicator of flexibility within this research is ease of use everywhere and anytime, cash is always accepted when do transaction. When the society shop either in big store or convenience store, cash always be the best choice as the system payment when transacting.

The use of non-cash money does not always become flexible and efficient for consumers who do not have good internet access, and understand the technological features that are paired with digital payment. As in the research (Ceeney, 2019) stated that digital payment depends entirely on good connectivity, where no connection means no payment, because infrastructure is really becoming a barrier for digital payments.

Thereby, flexibility is easy to be used and accepted anywhere make cash become the preference of society to always remains in wallet, so that when they suddenly want to shop in a small store then it will be accepted compared card.

The second hypothesis: Flexibility positively influence against the cash usage to the society in Yogyakarta

3. The influence of transaction volume towards cash usage as the system payment among Yogyakarta society

The relationship between transaction volume and the use of cash is related to one another. Some people in various countries will combine the payment system using cash and debit when the amount of cash that is competed is not enough. This shows that the use of Cash is still a trend among the people.

As according to (Schmidit, 2016) stated that in Germany using cash is more popular and more often used when compared to other countries. Almost in all countries, consumers will only use cash for transactions that have a smaller volume of around 10 euros or 10 dollars. However, in Germany, almost 40% of larger purchases with equivalent more than 40 US Dollar or more are still made in cash. It proves that the amount of cash determines the number of goods.

Furthermore, the pre-research conducted by the author, there are 67% people out of 100 people using cash payment to pay their purchases that reaches average up to 500,000 thousand rupiah. It shows that the society still use cash even though their volume transaction relatively higher.

The third hypothesis: Transaction Volume positively influence against the cash usage to the society in Yogyakarta

4. Charge for Non-Cash Payment positively influence against the cash usage to the society in Yogyakarta

The existence of additional costs owned by non-cash is one of the factors related to the society to use cash. As when they want to top up the balance for a digital wallet, so then they will be charged a fee, while paying for purchases using a debit card or other electronic card but it does not match with their own type of card, then they will incur additional costs beyond the total expenditure.

The existence of this statement is supported research by (Arango, et al, 2017) found that the evidence in difference incentive such as the relative cost of card and ATM withdrawal cost compared cash become the factors why cash still remains top of wallet across many developed economies.

The fourth hypothesis: Charge for Non-Cash Payment positively influence against the cash usage to the society in Yogyakarta

D. Research Framework

A theoretical framework is a model that explains how a theory relates to important factors that are known in a particular problem. It is used as the cornerstone to answer research questions. Here is the theoretical framework for this research "Determinant Analysis of Cash Payment"

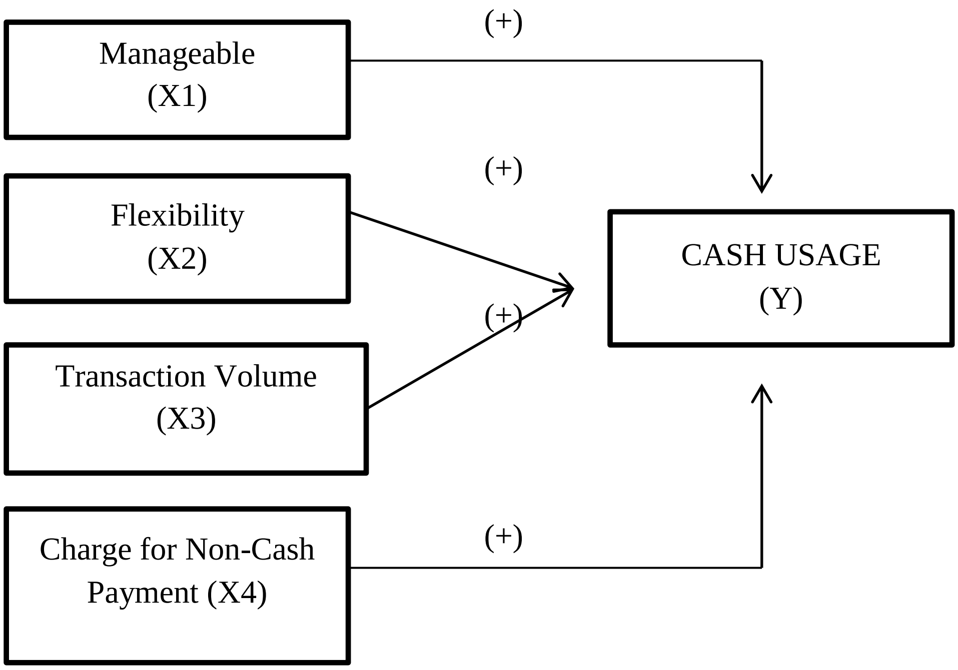

Figure 2.1

Critical Framework