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## Do Borrowers Behave Differently under A Waqf Institution?

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## **ABSTRACT**

Waqf was considered the main vehicle for investing in commercial and public ventures in early Muslim civilization. This paper discusses how the use of awqaf funds for lending can be a better alternative for financing in the Muslim world. We propose to model the concept of integrating the private equity and venture capital concept with waqf. An experimental study using a principal-agent contract, which mimics a possible contract in waqf, is employed to see the effect of the use of such social funds in investment and the social value embedded in such contracts. A standard loan contract with social preference is adopted to discern how much the structured contract superior compares with its legalistic Islamic standard contract employed in an Islamic bank. Using mudaraba in the experiment, the result provides evidence that knowing the nature of social endowment funds of an Islamic waqf institution motivates the borrower to comply with signed contracts and influences his giving behavior. This is expected to empower emerging Muslim economies and act as one of the solutions offered for development.

Keywords: Moral Economy, Private Equity, Venture Capital, Waqf

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## INTRODUCTION

The question why the economies of Muslim nations, in general, have been declining compared with those of the developed Western world has been subject to several academic studies. Kuran (2004), for instance, stated that the legal and institutional stagnations are the main causes of the "underdeveloped" Islam (represented by the Middle East). Kuran, then, pointed to the rigid and poor management of *waqf* as the obstacle in the economic development in his following statement: "They (Islamic law of inheritance, the strict individualism of Islamic law, and *waqf*) turned into handicaps by perpetuating themselves during the long period when the West developed the institutions of the modern economy" (Kuran, 2004, p. 72).

In line with Kuran, Ebrahim *et al.* (2014) regarded that the "weak-form property rights and deficiency of Islamic rulings (ijtihad) in the development of new financial instruments, institutions, and markets" as the causes of the decline of the Muslim world. Acknowledging current Islamic banking and finance (IBF) development as the second-best solution, Asutay (2011) emphasized that, "new institutions should be created as a new project for ethical Islamic finance beyond IBFs, as the latter remains loyal to legalistic dimensions of Islamic but not Islamic ethics."

In the light of the above three premises, this paper aims to (i) discuss the function of waqf in the early Islamic civilization; that waqf is the Islamic endowment fund that renders assets (both mobile and immobile assets) to be the "asset of God"; (ii) test the behavior of borrowers if financing needs were provided by new waqf-based financial institution as the Islamic charitable trust and one of a Muslim's eldest social funding practice; (iii) compare the borrower's behavior to financing provided by the Islamic bank and waqf institution under the framework of complementing the role of Islamic banking to achieve the aspiring Islamic moral economy.

The developed world, on the other hand, has witnessed a great upsurge in economic growth. One of the reasons behind this is the global proliferation of private equity (Wright *et al.*, 2007). The nature of private equity, in which the fund manager can actively manage and control the firm, has attributed to the low failure rate in this type of investment. This is due to its ability to eliminate "the lemons" from the investment basket. Access to information and alignment of manager and investor's interests are keys to its ability to sort out the bad investment.

It is important to note that Giligan and Wright (2010) defined private equity as "risk capital provided in a wide variety of situation, ranging from finance provided to business start-ups to the purchase of large, mature quoted companies, and everything in between." Thus, equity finance also covers both venture capital and buyouts.

The empirical study by Wilson *et al.* (2011) showed that, in the case of buyouts, private-equity-backed buyout firms performed better compared with non-buyout firms. This might be due to the fact that private equity fund managers perform its controls by installing representatives on the board, create contracts in which permission is required from the fund manager for certain corporate actions by management, exercise voting rights for important corporate decisions, grant access for all management decision and firms information, and build a comprehensive rewards and punishment system. It is important to note that the investment is aimed for a long term, which has caused the bankruptcy risk to be nearly nil (Gilligan and Wright, 2010).

The above success of equity financing and venture capital is needed in the effort to relieve some of the Muslim world from its backwardness. The financial structure offered by equity financing and venture capital can be utilized in creating a more efficient *waqf*. An effective institution is indeed important in the development (see, for example, Sen, 1999). This is in line with Mehmed (2011), which, in the context of Islamic finance institutions, mentioned that "Creation of ethical Islamic finance and investment institutions in the form of Islamic social banking as part of the civil society and also the creation of social banks should be considered as the next stage of financial development."

When developed countries groom their equity financing and private equity, Islamic finance, at the same time, has equity financing contracts such as *mudaraba* and musharaka, which mimic the venture capital properties of conventional finance. *Mudaraba* can be defined as a financing mode in which the financier provides the capital, and the entrepreneur or investment manager provides his expertise and time, while musharaka is defined as a partnership in which both financier and entrepreneur invest some share of the investment capital and have an option to get involved in the management as an active partner.

Early Islamic economist founding fathers agreed that mudhorobah is the ideal contract type and should be adopted by Islamic banks. Cizakca (1998) saw the murabahah as a concealed riba system. However, after more than 30 years of existence, this profit-loss sharing mode of financing has gained a minimum share of total financing modes of modern Islamic banking systems. Even in the one of the fastest-growing Islamic finance countries like Malaysia, the share of profit-loss sharing type of contract is less than 1 percent (Chong and Liu, 2009). Islamic banks argue that their low share is due to financial and managerial constraints, which make mudhorobah inferior compared with its mark-up-based contract (i.e., murabahah), despite its ability to create a strong binding contract under the banking laws (see, for example, Sarker, 2000, who referred to it as costly monitoring). The agency problem is noted by Dar and Presley (2000) as the source of its rare contract-type adoption. Indeed, many scholars, both conventional and Islamic economic and finance scholars, have contributed to the analysis of the effect of asymmetric information nature in an Islamic risk-sharing contract that causes the serious adverse selection, moral hazard, and other principal-agent problems (see Mills and Presley, 1998; Pryor, 1985; Nienhaus, 1983; Kara, 1999), although good features embedded in the contracts are highly acknowledged.

On the other hand, waqf management of surviving waqf institutions has been traditionally poor and far from utilizing modern financial instruments despite is enormous potential. Indonesia, for instance, has as much as five times Singapore's waqf land, but this has been managed simply as unproductive land pieces. However, this very same Islamic legal institution has contributed to the development of a charitable trust system in the Western world (Gaudiosi, 1988). Oxford and other English academic institutions with college systems in the United Kingdom, for instance, are "in its early phases of development, Oxford may have owed much to the Islamic legal institution of waqf charitable trust" (Gaudiosi, 1988, p. 1231).

Some Islamic scholars, however, tried to revitalize *waqf*'s role and management. Kuran (2001) intensively explained the origin, impact, and limitation of the *waqf* system in the provision of the public goods. Ibrahim *et al.* (2013) initiated cash *waqf* for a development source of funds. Other references come up with ideas, but none have engaged them within the

concept of private equity.

To connect the use of *waqf* funds in the equity financing scheme, key questions to address are: How can Islamic contracts accommodate the corpus-reservation rigidity of *waqf* asset into private equity? How does Islamic law perceive it? Under which design does the contract create efficiency, self-empowerment, and social value per the Islamic moral economy?

Motivated to find answers to those questions and by the above facts, this paper focuses on understanding the role of Islamic charitable trusts in the Islamic financial landscape. More specifically, this paper explores the use of waqf in a developing financial structure in an effort to allow access to those who otherwise stay out of financial systems. In achieving the above objectives, both the Islamic legal and theoretical concepts relating to waqf as an investment instrument within Islamic finance is addressed in the next section. Furthermore, discussion of how the use of awqaf funds for lending can be a better alternative to financing in the case of the development intermediation being considered, especially in relation to the borrowers' behavior. A standard profit sharing loan contract in a waqf institution is adopted to see how much the structured contract superior compared with the same contact employed in an Islamic bank with collateral features.

To test this idea, we develop an experiment to see the behavioral response in choosing the lending institution and moral role in the existence of the agency nature of the contract. Prospective borrowers offered an investment whose return is known to the borrowers but not to the lending institution (bank and *waqf* institution). Borrowing from the bank entails collateral, which will be penalized in the case of default or in the case it misreported the return of the investment, while the *waqf* institution neither requires any collateral nor imposes any penalty on default or misrepresentation of the true investment return. In short, we aim to test the behavior of borrowers in an enforceable contract and nonenforceable contract and their preference toward the two institutions.

Knowledge of the behavior and efficient contracts of moral-based institutions is expected to empower emerging Muslim economies and discharge them from the underdeveloped status. This paper is organized as follows. Part II shows the *waqf* in Islamic civilization and how private equity can be used in the *waqf* context. Part III discusses the experimental design and adopted experimental procedures. Part IV and V presents our experimental result and conclusion, consecutively.

## REVIEW OF LITERATURE

Waqf has played a crucial role in Islamic civilization. It is so vital, to the extent that Hodgson (1974) postulated that the successes and the failures of the Muslim world economy depended on the efficiency of waqf. It is important to note that Islamic law requires the corpus or principal of the waqf asset to be fully reserved by the Nazir (waqf fund manager). It is also important to ensure that the use of waqf (in the form of investment, etc.) would generate income for building facilities and providing the needs of the proposed receiving entities. Investment facilities that are in line with Islamic values are therefore essential in utilizing the waqf fund to its best use.

Allawi (2009) saw that waqf institutions are indeed crucial in Muslim society in which religious—pious, economic, and social activities, such as through education, health, and

philanthropic institutions, are based. However, *waqf* institutions and instruments have been forgotten in the current economy of many Muslim majority countries, to the extent that Allawi (2009) said:

"This type of service-based charitable work (waqf) is an essential element of the Islamic economy, weaving, as it were, religious obligation with a strong sense of social justice and moral responsibility ... How ironic that contemporary reformers want to promote 'civil society' institutions, when authentic Islamic models, honed over centuries of service, have been systematically undermined and destroyed."

Early Islamic economic and finance movements, referred to as contemporary reformers by Allawi in the above, were not so much into revitalizing *waqf* institutions. The movement's aim of promoting an Islamic value-based economic system (Asutay, 2012) was attempted through Islamic finance, particularly through Islamic banking.

Islamic economics and finance, indeed, have placed more emphasis on the implementation of idealized risk-sharing contracts such as *mudaraba* and musyarakah in Islamic banking; yet these contract types have minor shares under current Islamic banking practices (Chong and Liu, 2009). The asymmetric information that shapes the borrower's behavior has been claimed as the main reason for this condition (Dar and Presley, 2000).

In the case of *mudaraba*, the unequal distribution of risk in which the financier assumes all the possible downsides of the investment, is sourced of the low adoption of the contract by Islamic banks (Bacha, 1997). Such an arrangement stems from the traditional interpretation of Islamic law for a *mudaraba* contract. Furthermore, comparing *Mudaraba* to debt financing and equity financing, Bacha (1997) found that *mudaraba* suffers not only a more severe agency problem but also an inferior risk—return in the eye of the financiers (up to one-tenth of debt or equity financing [p.14]).

On the other hand, historically, waqf has been the main vehicle for financing commercial and public ventures, which is the role played by banks and other financial institutions currently (Hodgson, 1974). Although Kuran (2001) noted that waqf has been the handicap for development in the Muslim world, Islahi (2004) argued that, historically, waqf has significantly contributed to many aspects in development, and the constraints that a waqf institution presented after its golden time were partly contributed to by the colonial government's policy to weaken the institution. Thus, the institution itself cannot be blamed as the handicap of the development.

In line with Islahi (2004), Leeuwen (1999) saw the importance of waqf in the development of the urban structures of the Ottoman Damascus era. The Umayyad Mosque, which was built as the "symbolic centre of the new Muslim empire" (Leeuwen 1999, p. 33), played a central role in developing the waqf system of the city. This role covers both spiritual and economic activities of the waqif (waqf giver) and the beneficiaries. Although the case of waqf under the Ottoman Damascus era presents how waqf was institutionalized under the support of the power, waqf history in Islam has existed long before it.

Where are the Qur'an and the Prophet's sayings (hadith), as the primary sources of law in Islam, mentioned about waqf? The Qur'an in Sura Al- Muzammil 73:20 in which Allah says: "And establish regular Prayer; And give regular Charity; And loan to Allah a Beautiful Loan"

is regarded as the foundation and motivation of the *waqf* deeds. Early practices of the Islamic endowment system in the history of Islam were recorded in at least three following hadiths:

- 1. "Ibn Umar reported: Umar acquired a land at Khaibar. He came to Allah's Apostle (may peace be upon him) and sought his advice in regard to it. He said: Allah's Messenger, I have acquired land in Khaibar. I have never acquired property more valuable for me than this, so what do you command me to do with it? Thereupon he (Allah's Apostle) said: If you like, you may keep the corpus intact and give its produce as Sadaqa. So Umar gave it as Sadaqa declaring that property must not be sold or inherited or given away as gift. And Umar devoted it to the poor, to the nearest kin, and to the emancipation of slaves, aired in the way of Allah and guests. There is no sin for one, who administers it if he eats something from it in a reasonable manner, or if he feeds his friends and does not hoard up goods (for himself). He (the narrator) said: I narrated this hadith to Muhammad, but as I reached the (words) "without hoarding (for himself) out of it." He (Muhammad) said: "without storing the property with a view to becoming rich." Ibn Aun said: He who read this book (pertaining to waqf) informed me that in it (the words are) "without storing the property with a view to becoming rich." (Sahih Muslim No.4006, Volume The Book of Bequests (Kitab al-Wasiyya), translation by Abdul Hamid Siddiqui)
- 2. "Abu Huraira (Allah be pleased with him) reported Allah's Messenger (may peace be upon him) as saying: "When a man dies, his acts come to an end, but three, recurring charity, or knowledge (by which people) benefit, or a pious son, who prays for him (for the deceased)." (Sahih Muslim No.4005, Volume The Book of Bequests (Kitab al-Wasiyya), translation by Abdul Hamid Siddiqui)
- 3. "Allah's Messenger! Allah, the Blessed, the Superior says: By no means shall you attain Al-Birr (righteousness, piety, etc., it means here Allah's Reward i.e. Paradise), unless you spend (in Allah's Cause) of that which you love. And no doubt, Bi'ruha' garden is the most beloved of all my property to me. So I want to give it in charity in Allah's Cause. I expect its reward from Allah. O Allah's Messenger (PBUH) Spend it where Allah makes you think it feasible.' On that the Prophet (PBUH) said, 'Bikh (good) it is useful property. I have heard what you have said, O Abu Talha, and I think it would be proper if you give it to your kith and kin'. Abu Talha said, 'I will do so, O Allah's Messenger'. Then Abu Talha distributed that garden amongst his relatives and his cousins." (Sahih Muslim No.24, Volume The Book of Zakah (Kitab al-Zakah), translation by Muhammad Muhsin Khan, Jeddah: Maktabah Dar As-Salam, 1994)

The hadith of Umar bin Khattab (above) is used not only as the oldest practice of waqf in Islam, it is also the legal foundation of its very existence. The second hadith is well known as 'Amal Jariah (deeds whose benefit will still shower the deceased donor) give strong motivation for a Muslim to perform waqf deeds. Waqf in the development of the school, for example, is actually able to cover the three deeds in one action. The school may teach knowledge (by which people) benefit, and it will be considered as a recurring charity as the school operates. Last, the waqif could require the school to benefit his offspring as priority, which then may

create the "pious son, who prays for him."

Another hadith that provides the legal backup of waqf is the Abu Talha's case in which the waqf is believed as the foundation of one of the oldest waqf institutions in the Islamic history, waqf Haramayn. Cizakca, in his seminal 1998 paper on "Awqaf in history and its implications for modern Islamic economies," argued that the "new legislature" to support the institutionalization of waqf was initiated by Abu Yusuf in the second half of the second century (Cizakca, 1998, p. 49). Cizakca then argued that the development of waqf systems was extraordinary, but the institution's progress was dependent on the ruling government (p. 44). This has brought consequences of its using Cizakca's term, "deliberate destruction" when the Muslim world was under colonialization.

The use of waqf not only covered financing public utilities, it also covered personal loans. Hoexter (1998), for example, showed the case of the waqf in Harayman's loan to the common people and to government officials (p. 162). The finding that the heirs of the debtor will need to repay the debt, in the case of death of the debtor, shows that the loan was not under the qardul hasan (social loan) contract, although the loan was not subject to any interest.

Cizakca (1998) also showed that lending has been widely practiced by waqf institutions in the Ottoman economy. The fatwa of Imam Zufar suggested that a waqf institution should use the mudaraba contract, which is widely known, although the practice was far from the fatwa. The waqf institution, at that time, used an istiqual contract, instead. History also informs us that this very same Islamic legal institution has contributed to the development of charitable trust systems in the Western world (Gaudiosi, 1988). Oxford and other English academic institutions with college systems in the United Kingdom, for instance, "in its early phases of development, Oxford may have owed much to the Islamic legal institution of waqf charitable trust" (Gaudiosi, 1988, p. 1231).

However, underdevelopment through the passage of time has made them "dysfunctional" through their inflexibility as a trust (Kuran, 2004). The effort to revitalize *waqf* and other authentic Islamic institutions has indeed been a new movement in Islamic economics and finance nowadays to the extent that Nagaoka (2014) labelled the movement as the New Horizon 2.0 of Islamic economics and finance. Earlier efforts have indeed been made by some Islamic economics and finance scholars to revitalize *waqf* (together with Zakat). One of the most-cited ideas is to use *waqf* funds for microfinance (Ahmed, 2007; Ahmed, 2011; Saad and Anwar, 2009; Masyita and Ahmed, 2013). Further efforts have been utilized to untap this opportunity for funding social safety nets and public infrastructures (Cizakca, 1998; Shaikh, 2015). On the other hand, Ibrahim *et al.* (2013) initiated cash *waqf* for a development source of funds.

The practice of cash *waqf* with the involvement of Islamic banking, for example, has been practiced in Bangladesh through social investment bank limited (SIBL), as promoted by Mannan (1994); SIBL produces cash *waqf* certificates to collect funds from donors (waqif) and distribute the gains of the managed funds among the deserving person or beneficiaries (*mauquf 'alaih*). This practice was the first in Islamic banking history in which Islamic banks used cash *waqf* as its investment product. This cash *waqf* product is known as a *mudaraba* waqf cash deposit account (Amin *et al.*, 2013; Islam, 2015).

In regards to the contract used, early Islamic economist founding fathers agreed that *mudaraba* is the ideal contract type that should be adopted by Islamic banking. Cizakra (1998)

saw the murabahah as a concealed riba system. Equity financing contracts or the prominent profit—loss sharing contract consists of *mudaraba* and musyarakah. *Mudaraba* can be defined as a financing mode in which the financier provides the capital, and the entrepreneur or investment manager provides the expertise and time, while musyarakah is defined as a partnership in which both financier and entrepreneur invest some share of the investment capital and have an option to get involved in the management as an active partner.

However, after more than 30 years of existence, this profit—loss sharing mode of financing has gained a minimum share of total financing mode of modern Islamic banking systems. Even in the one of the fastest-growing Islamic finance countries such as Malaysia, the share of profit—loss sharing type of contract is less than 1 percent (Chong and Liu, 2009). Islamic banks argue that its low share is due to financial and managerial constraints, which make *mudaraba* inferior compared with its mark-up-based-type contract (i.e., murabahah), despite its ability to create a strong binding contract under the banking law (see, for example, Sarker, 2000, who referred to it as costly monitoring). The agency problem was picked up by Dar and Presley (2000) as the source of its rare contract-type adoption. Indeed, many scholars, both conventional and Islamic economics and finance scholars, have contributed to the analysis of the asymmetric information nature effect in an Islamic risk-sharing contract that causes serious adverse selection, moral hazard, and other principal-agent problems (see Mills and Presley, 1998; Pryor, 1985; Nienhaus, 1983; Kara, 1999), although good features embedded in the contracts are highly acknowledged.

An example of agency problems in *mudaraba* faced by Islamic banks, which is elaborated upon by Shaikh (2011), is disparity of payoffs if loss occurs in *mudaraba*, which induce the financier to demand higher returns reflected in demand for a higher profit sharing ratio. In that case, a mudarib's motivation and incentive diminishes especially if mudaribs require bearing no financial loss and already have means of sustenance with another business line. Because the loss sharing, which should be based upon and limited to the amount of capital invested, is not a condition explicitly mentioned in the Qur'an and hadith, the author contended of making the *rabb-ul-maal* (investor) completely responsible for sharing all losses is unjustified in the first place.

In a *mudaraba* scheme, the *rabb-ul-maal* is not allowed to be involved in the affairs of the business. On the other hand, venture capitalists could include several covenants for dealing with agency problems. Accordingly, Shaikh (2011) proposed that two covenants could be introduced in a *mudaraba* scheme as an effort to solve the agency problems as follows: i) mudarib can be asked to contribute some capital, where the contract is still not similar to musharakah, as only the mudarib is the working partner; ii) mudarib can be asked to share in loss to some extent.

## RESEARCH METHODOLOGY

This paper is proposed to model the concept of integrating the private equity and venture capital concept with *waqf*. An experimental study using a principal-agent contract, which mimics a possible contract in *waqf*, is employed to see the effect of the use of social funds in an investment and the social value embedded in such contracts. We, then, compare it with the contract under the banking institution. This covers: (i) the structure of the investment (that

allows the corpus of waqf to be preserved); (ii) the downside risk; (iii) the transaction cost (iv) the certainty; (v) contract and commitment of the Nazir, etc.

To perform it, we design an experimental research to (i) discuss the optimal contract and structure of *waqf* fund under venture capital scheme; (ii) find suitable contracts and structure given to Muslim to benefit from the *waqf* fund.

The embeddedness of the Islamic moral economy is tested in the decision of the borrowers in choosing the lending institutions, the compliance of the contract (i.e., the willingness to repay the loan as well as to repay it according to the true rate of return). The inexistence of enforceable factors in a *waqf* institution is an ideal test of how much morals play a role in a borrower's economic decision.

The test is designed to be played once. This is to prevent the possibility of incentive constraints created through reputation in the repetitive game. The nonrepetitive design in the experiment is intended to reveal whether the decisions made by borrower are truly based on the embedded value—and not because of the effort to build reputation. If, for example, the game is designed to be done twice, the choice to reveal the borrower's "true" behavior might be postponed until the last game because the benefit of "cooperating" in an earlier game will outweigh the cost of being "expelled" from the game after showing dishonesty in the first game.

In the game we design, if the lender knows that the borrower is not honest in the first (and last) game, the lender could not "punish" the borrower in the future game. For the borrower, knowing such a situation leaves him with no (financial) incentive to maintain honesty. Thus, being honest in the first (and only) game is "clean" from a financial perspective. As the purpose of the experimental design is to see whether this information asymmetry will be exploited by borrowers, this design will strongly reveal such behavior.

The experiment is, thus, designed to test whether the embeddedness of Islamic moral economy was reflected by the borrowers in the market. This is in line with the opinion of Abu Hamid al-Ghazali, which said: "Let the sugs of this world below do no injury to the sugs of the hereafter, and the sugs of the hereafter are the mosques" (El Sheikh, 2008, p. 122). The economic agents of the Islamic moral economy, or Homo-Islamicus, embracing the mawdudi term, are supposed to be stimulated by its philosophical foundations, as claimed by Mehmet (2007b) as the ideal corresponding ethics through which economic and social dealings with every aspect of human life are assessed. These philosophical foundations are stipulated by Mehmet (2007b) as follows: Tawhid (God's unity and sovereignty); Al-'Adl wa Al-Ihsan (equilibrium and beneficence or socio-economic justice); ikhtiyar (free will); fard (responsibility); rububiyyah (divine arrangements for nourishment, sustenance, and directing things toward their perfection); tazkiyah (growth toward perfection through purification of attitudes and relationships); khilafah (Allah's vicegerent and the accountability of the vicegerent); maqasid al-shari'ah (the objectives of shari'ah). Hence, this study tries to assess whether the economic agents will behave in accordance with those ethics when interacting with waqf institutions, as opposed to Islamic banking, which is perceived to be diverged from the aspirations of the ethics proposed by the Islamic moral economy (Asutay, 2012, p. 100).

The research hence overcomes the gap between form-oriented Islamic finance and Islamic moral economy outcomes by using Islamic finance in a social welfare institution of Islamic civilization, namely waqf. This is expected to contribute to the emergence of Islamic moral

outcomes in a Islamic financial operation through *waqf*, as emancipation and empowerment of individuals through socially failed Islamic finance will be achieved within a developmentalist project.

The objective of this experiment is, thus, to analyze the role that can be played by the *waqf* institution (social endowment fund) in a loan contract setting. The non-enforceability nature of the contracts and the different initial endowment of the players are variables, where the existence of moral motivation is tested. The moral motives can be seen in the participants' decision to:

- 1. Determine whether to take the loan or not and which lending institution is chosen;
- 2. Determine the willingness to repay the loan;
- 3. Decision on how much return to be shared to the waqf institution and the bank.

The experiment is structured similar to the trust game, and participants are a mix of undergraduate students, postgraduate students, and spouses of the Indonesian students in Durham, United Kingdom, and Jakarta, Indonesia. The experiment in Durham, United Kingdom, is conducted in a class setting. The description of the experiments is informed to the participants directly from the start. However, players can ask questions anytime during the experiment. Twenty-one of a total of 67 participants in this research resided in Durham, United Kingdom.

Many studies using an experimental approach indeed placed students as their experiments participants (see, for example, Zell study on the determinants of risk attitude in the Kellogg School of Management, Northwestern University, in which only MBA students were participating in the research).

While putting students (although in our case, there are also non-student participants) in the game might represent a non-representative subset of population, we could claim that, in the case of this research, the use of student participants is still relevant. This is because the basic idea of the research is on the utilization of *waqf* fund for venture capital. The current start-up and techno-based ventures that spring in the venture capital industries were fueled by the people at their age, and indeed students included big names like Mark Zuckerberg of Facebook, or Sergei Brin and Larry Page of Google, and the like as their inspiration for a future career.

It is important to note that the experiments were conducted in two different countries: United Kingdom and Indonesia, in which United Kingdom students were mostly postgraduate students who took their undergraduate studies in different universities. Some have work experience in professional companies and have been in loan agreements with financial institutions. In this manner, the participants have represented variability that might emerge in the population of venture capital (see, for example, CB Insight's Venture Capital Human Capital Report, which found that 81 percent of the founding team of venture capitalists are aged under 44 years old).

Experiments in Indonesia were conducted through WhatsApp application. Prior to participating in the experiment, each of the players were required to register their WhatsApp contact together with all their basic identity online.

Bahasa Indonesia is used as the communication language in both countries. It is informed at the beginning of the experiment that each participant will be given some payoff proportional to their gain in the game. This is to create a real incentive for each player to reveal its true decisions.

The game is started by randomly dividing participants into three different initial endowment players. The endowments are 5 million rupiahs (USD 380), 10 million rupiahs (USD 760), and 15 million rupiahs (USD 1150). Then, an investment, which gives an expected return of 100%, is offered to each of the participants. The capital required for the investment is 10 million rupiahs (USD 760). The actual investment returns received by the players are randomly given to the participant between 0%, 100%, and 200% yield.

Information of the financing options that the participants can use is presented. An Islamic bank representative will then offer a *mudaraba* (profit-sharing) contract for the financing need. The Islamic finance literature allows the use both mudhorobah and musyarakah contract under private equity. The use of *mudaraba* is not only simplifies the experimental design but also theoretically has the biggest chance of creating a moral hazard. This would be beneficial in finding out the effect of morals within the borrowing systems.

A 50:50 *nisbah* (profit-sharing ratio) is applied for the contract. Information of the *waqf* institution is also given, thus offering exactly the same profit-sharing contracts with the same 50:50 profit-sharing ratio. Each of the lending institutions' source of funding (i.e., funds from depositors and bank's owner versus social endowment fund from donors) is central to the explanation. Emphasis is placed on the fact that the Islamic bank requires the player to put 50% of the agreed-upon loan into the bank as a collateral of the loan, while the *waqf* institution will not require any collateral at the end of the information. This is to ensure that the player sees its implication to the enforceability nature of the contract under each lending institution.

Participants then decide how much to borrow and from which institution. Each player is free to decide combinations of funding from initial endowment and lending institution. However, the use of a lending institution is mutually exclusive; thus, its investment cannot be financed via a combination of Islamic bank and *waqf* institution.

Under the above experimental structure, it is quite obvious that the best strategy for each player would be to take the loan from the *waqf* institution and then don't pay it back. Taking a loan from an Islamic bank is not optimal, not only because of the required 50% required collateral but also because of the risk of losing the collateral in the case of default or noncompliance (i.e., reporting a false rate of return).

The experiment setting is centered on the experimenter both directly in the case of the experiment in the United Kingdom and via WhatsApp in Indonesia. The players hypothetically give the 10 million rupiahs to the experimenter (if they decide to take the investment offer); after a while, the experimenter returns the money with additional actual return, which was set randomly. The players then inform their return of the investment (randomly). They will then request to put in the amount of money they want to transfer back to their respective lending institution. The experimenters then inform them that the lending institution has no knowledge of how gain resulted from their investment and that the *waqf* institution has no power to enforce the repayment, while the Islamic bank might, as indicated earlier, take the collateral in the case of default or misrepresentation of the true rate of return.

It is important to note that this game is meant to be played once, to eliminate any mechanism to build reputation, to make a contractual commitment, and to avoid any potential punishment. At the end of the session, participants are required to include their total wealth, and a portion of that amount is given as an incentive acquired from the experiments.

## EXPERIMENTAL RESULT AND DISCUSSION

Observation from the experimental research is expected to be able to answer the following question: Do people behave differently to *waqf* institutions, in terms of willingness to borrow? Knowing that *waqf* funds come from social sources, do people's morals influence the decision in repaying the debt? Are they revealing truthfully their profit to be shared with the *waqf* institution?

First, as we allow the players to decide whether or not to take the investment, it is interesting to note that there are in total 6% players who decided not to take the investment opportunity. Participants from Indonesia and United Kingdom share the same number (3%).

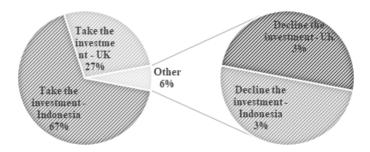


Chart 1. Decisions to take or decline investment opportunities

All those who reject the investment in Indonesia come from low-initial-endowment players (5 million Rupiah initial endowment group), whereas all those who decline the investment in United Kingdom were middle-income players (10 million Rupiah initial endowment group). The low 6% of these investment refusal is considered to be in line with the findings of Audretsch, Bonte, and Tamvada (2013), which claim religions like Islam promote entrepreneurship. The research is based in India. Besides Islam, another religion being investigated is Jainism, in which the same pattern is found. The research also sees the effect of social class to the entrepreneurial decision.

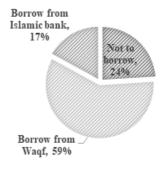


Chart 2. Investors decision on source of funds

Around 24% of the players decided not to use any lending institutions, therefore financing its investment need fully from its endowment. The majority are from high-initial-endowment players (67%), and the rest are from medium-initial-endowment players (33%). Surely, low-initial-endowment players could not invest without borrowing, as the investment requirement is higher than their initial endowment. The remaining participants (76%) decided to borrow from lending institutions, in which the *waqf* institution is preferred by almost 3.5 times more by participants than Islamic banking.

This choice of waqf as a lending institution is understandable, as the waqf contract introduced in the experiments allows borrowing without putting guarantees in the form of retained cash. It is interesting to note that the majority of borrowers are from middle and high initial endowment (65%), those who basically can afford the investment via their own endowment fund. Only 35% of borrowers are from a lower initial endowment who, without borrowing, could not afford the investment opportunity. This shows that medium- and high-initial endowment players are comfortable in using lending institutions despite their ability to self-financing its prospective investment.

Our main interest is to analyze how morals influence the choice of lending institution, which reveals an interesting finding. As predicted, a *waqf* institution is favored compared with Islamic banking, showing a dominant 77 % of total financing contract. Islamic banking covers only 23% of the financing market. The decision to choose a *waqf* institution was not made only by low-initial-endowment players but also was equally chosen by middle- and high-initial-endowment players (38%, 32%, and 30%, respectively). Islamic banks are popular in medium initial endowment, reaching 64% of total borrower, while the low and high initial endowment only contribute 27% and 9%, respectively

Table 1. Borrower distribution over lending institution

	Lending Institutions	
Borrower	Waqf	Islamic bank
High initial endowment	30%	9%
Medium initial endowment	32%	64%
Low initial endowment	38%	27%

In terms of contract compliance, it is interesting to note that most participants either repay the loan according to the contract agreement or repay it with a higher amount, as required by the contract (around more that 83% of total borrower). Consequently, the remaining 16.7% pay a lower rate than the true return or even default the payment. Interestingly, in this experiment, we found that almost 13% of the borrowers repay the loan with additional "gift" to the lending institution. Almost all of these are customers of a *waqf* institution (around 83%). This finding offers a hint of the giving behavior that might be induced by a social lending institution. It is important to note that the experiment design does not indicate any encouragement nor discouragement over giving an extra amount of money in the loan repayment.

Table 2. Borrower behavior on loan repayment

Borrower Behavior	Percentage
Borrower who repay the loan according to the contract	70.83%
Borrower who repay the loan less than the contract	16.67%
Borrower who repay the loan more than the contract	12.50%

Looking at the behavior revealed by borrower of a *waqf* institution, we also found that 75% of borrowers who returned the loan less than the contract were contributed by the borrower from *waqf*. This is predictable, as the *waqf* contract did not use any collateral; thus, moral hazard behavior is latent. Under a prisoner's dilemma, the equilibrium suggests that all borrowers should cheat on the repayment of the loan and the share of the return; that is, there is no incentive for borrowers to abide with the contract.

However, comparing the compliance rate of the two institutions, we can see that the effect of collateral on inducing compliance is quite negligible (see Table 3). In fact, in our experiment, the repayment of loan and its profit sharing for equal and more than the contract rate is slightly higher for *waqf* compared with the Islamic banks (83.78% and 81.82%, respectively). This is an important finding considering that collateral has been widely used to prevent moral hazards possibly emerging from asymmetric information. The experiment shows that, although the loan was given without collateral requirement, the *waqf* borrower behaved slightly "better" compared with its Islamic banking counterparts.

We also notice that the experiment revealed that knowing the social nature of *waqf* fund induced the giving behavior of the borrower, paying his debt and profit share more than the rate required by the contract (in this case, the *waqf* borrowers are almost 50% higher compare to Islamic banks).

Table 3. Compliance rate of the borrower

	waqf	Islamic bank
Repayment equal to the contract	70.27%	72.73%
Repayment more than the contract	13.51%	9.09%
Repayment less than the contract	16.22%	18.18%

For an Islamic bank, with the collateral attached in the contract, there remain 18.2% borrowers who decided to either default or share a false investment return. The difference of compliance rate between the Islamic bank and *waqf* institution extend the research of El-Komi and Croson (2013), which compared the compliance rate among different contracts. Our experimental research shows that, under the same contract type, compliance rate might still be different due to the borrower's embedded morals in dealing with specific financial institutions.

Another interesting finding is the fact that the majority of the borrowers who give extra return to the institution are the middle- and low-initial-endowment borrower. Each contribute 50% of the share. No high initial endowment borrower gave extra to the lending institution. Those who cheat are dominated by the low-initial-endowment borrower as well (50%), while the middle-initial-endowment contribute 37.5%, and the rest are performed by the high-initial-endowment borrower.

By this, we argue that *waqf* can play a role in enhancing the effort to create a moral Islamic economy. This role of *waqf* could be realized in the form of philanthropic venture capital, which mimic the contract of profit and loss sharing (PLS) in terms of *Mudaraba*.

## CONCLUSION

One of the main objective of this paper is to show, using experimental methods, the better moral response or decision-making by borrowers in the willingness to repay a loan and to reveal the true rate of return to the lending institution. The contract type used in this experiment is a profit-sharing contract, which is widely known as *mudaraba* in Islamic finance. There is evidence that knowing the nature of social endowment funds of an Islamic *waqf* institution motivates the borrower to comply with signed contracts and act upon his giving behavior.

More generally, the objective of the experiment has been to understand how different institutions would create a distinguishable response under a similar financing contract. The behavioral foundation established within this experimental setting is expected to motivate the development of social endowment-based lending in the Muslim world. However, further experimental studies are needed to better understand the findings of this paper.

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