

Trust in Islamic Business-to-Business Relationships

Trust in Islamic Business-to-Business Relationships. Evidence from Indonesia

Abstract

We examine the role of trust within Islamic culture in business-to-business relationship by exploring the link between credit officers' trust in business customers and their financing decisions. In line with our framework which is based on the fact that Islamic culture is characterized by a collectivistic approach and clan-based social structure, we find that value-based trust is more important than competence-based trust in explaining business relationships. The results support the argument that the Islamic culture business relationships are grounded more on principles, values, norms that a partner brings to the relationship than in the business skills. Our results are robust to endogeneity and multilevel issues.

Keywords: Trust, Islam, Islamic Finance, Religion, Ethical and Moral Values

Introduction

It is generally held that trust is an important element in business relationships. Past research has stressed both its positive functional role (Barney and Hansen, 1994; Bromiley and Cummings, 1995; Dyer and Chu, 2003; Zaheer, McEvily, and Perrone, 1998) and dysfunctional effects (Villena, Choi, and Revilla, 2019; Zahra, Yavuz, and Ucbasaran, 2006). However, trust does not develop in a vacuum. It builds on both the confidence that the trustee is capable of

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performing an action, and on the opinion that the trustee's actions will follow shared ethical and moral values (Mayer, Davies, and Schoorman, 1995). This suggests that there is an intersection between trust and moral values (Hosmer, 1995) that, in turn is very closely intertwined with religion (Hare, 2019) since the notion that moral values are shaped by religion is widespread (McKay and Whithehouse, 2015). This holds particularly true in contexts where there is a prevailing religion that has been shaping society and national culture for long time (Hofstede, Hofstede, and Minkov, 2010). Recently, research has begun to examine the link between trust and its cultural antecedents, as well as the role of culture in supporting/constraining the development of trust (Ayios, 2003; Cannon *et al.*, 2010; De Cremer, 2015; Doney, Cannon, and Mullen, 1998; Hewett and Bearden, 2001; Huff and Kelley, 2003; Tang, Deng, and Moro, 2017; Williams, Han, and Qualls, 1998; Zaheer and Zaheer, 2006). In particular, the impact of Islamic culture (as shaped by Islam's value system) on trust development has not been covered at all. Moreover, no research so far has measured the role of different aspects of trust on the outcome of trusting relationships, that is the different economic impact of different aspects of trust.

According to Rassool (2015), Islamic teachings, contained in the Qur'an and Hadithⁱ, stress the importance of working for the collective good and taking care of others and this for the love of God (Abu Rida, 1998). In a similar vein, Biggs, Bussen, and Ramsey (2019, p.56) argue that the Qur'an "*urges Muslims to see one another as well as non-Muslims as members of one human family striving toward common goals*". Indeed, the Qur'an and Hadith provide a number of instructions to teach Muslims to donate and help the community without rewards. For example, Qu'ran (5:2) says, "Help ye one another in righteousness and piety, but help ye not one another in sin and rancour." (Jiang, Garris, and Aldamer, 2018). According to Anas Ibn Malik (711–795 CE), Mohamed, the Muslim prophet, said "None of you has faith until he loves

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for his brother what he loves for himself" (Sahih Bukhari, Book 2, *Hadits* Number 12).

Similarly, the second caliph (Umar) stresses the importance to have well-balanced social relationship (Fekih, 1998) in line with Qur'an and the Hadith that condemn individualism:

"The best among you is he who is most beneficial to others. The believers together are like the timbers of a building, each supporting and consolidating the other" (Ibn Hanbal, IV, 274 as cited by Fekih, 1998, p. 101). This approach is also found in the Islamic Middle East business activities, as stated by Lewis and Churchill (2009, p.102) who point out that "the result is a way of life that is very decent, very humane, very gentlemanly. If one of them is not doing well or is known to have problems, his colleagues will direct customers to him and generally attempt to seek a fair distribution". This business practice is in line with what Al-Farabi (the Muslim philosopher) view that happiness is a collective issue and stems from mutual help (Fekih, 1998).

This suggests that Muslims, throughout Islamic teachings, are instructed that individual interests are subordinate to collective interests (Chatterje, 2011; Jiang, Garris, and Aldamer, 2018). As such it could be argued that Islamic teachings foster a culture where 1) the interests of the group prevail; 2) ties between individuals are strong; 3) more weight is given to social norms than attitudes as determinants of social behaviour, and 4) a person's misbehaviour is disgrace to the entire family/clan (Hofstede, Hofstede, and Minkov, 2010; Hui and Triandis, 1986; Triandis, 1996). Interestingly enough, these are the elements that define a culture as collectivistic, as clearly supported by past research (Abeng, 1997; Forster and Fenwick, 2015; Graafland, Mazereeuw, and Yahia, 2006; Hofstede, Hofstede, and Minkov, 2010; Lalonde, 2013; Rice, 1999; Richardson, 2014; Richardson and Rammal, 2018). For instance, strong ties and social norms increase the role of shared ethical and moral values such as benevolence and integrity, two

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factors that are also recognised as determinants of trust (Mayer, Davies, and Schoorman, 1995).

Moving from these premises and in line with the research that stresses the different role of competence and value based trust (Connelly *et al.*, 2018; Tinsley, 1996), we show that a collectivistic society (such as the Indonesian one) relies more on the moral/ethical (benevolence-integrity) aspects of trust than on skills and capability ones (ability) so that the former aspects of trust have a greater economic impact on the outcome of the trusting relationship. Our framework and empirical evidence also highlight that once trust is established it is expected to be strong and resilient, since it exploits a common, stable, and reliable set of values. However, the challenges in assessing moral and ethical values (time and effort needed) influence the size of the community to whom trust is extended (radius of trust). To sum up, we contend that in collectivistic societies trust is mainly based on ethical/moral components so that the economic impact of value-based trust is greater than that of competence based one. Moreover, trust is very reliable but it is extended to a small group.

We test our framework by looking at the role of trust between bank credit officers and small business owners in Indonesia. This is an excellent context since: 1) credit officers are subject to a high level of information asymmetry that exposes them to small business owner's opportunistic behaviour (Chiles and McMackin, 1996; Dyer and Chu, 2003) in the form of moral hazard and adverse selection. In order to mitigate this risk, credit officers cannot but increase controls or exploit value-based trust; 2) credit officers have to assess the ability of the firm to cope with challenges (Das and Teng, 2001), suggesting that competence-based trust may facilitate their financing decision; 3) the risk incurred by the banks in lending to firms is very high and the tools to hedge it generate additional costs; 4) Indonesia is the country with the biggest Muslim population in the world, characterized by a well-established mixed financial

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system.

Our empirical evidence shows that both ability (competence-based trust) and benevolence-integrity (value-based trust) work in tandem in facilitating business relationship in Islamic culture. However, in further support to our conceptual framework that explains the link between Islamic (collectivistic) culture and trust, we find that value-based trust (benevolence and integrity) has a more important role (greater economic impact) than competence-based trust (ability).

Our empirical contribution advances the extant literature on trust by: a) empirically showing the greater economic role of value-based trust on the business relationship in Islamic/collectivistic context; b) showing that, in the Islamic/collectivistic culture, it is worthwhile to invest the extra effort, time and energy necessary to develop and consolidate value-based trust in order to build and maintain business relationships. Our work provides important empirical support to past research stating the role of culture in building trust by also showing how religion, through its relationship with culture, can affect the role of trust in a specific context.

Literature review and Conceptual Framework

In a context characterised by high information asymmetry like the business-to-business relationships, one actor (principal) may decide to implement control on the other actor (agent) to detect potential misbehaviour. Actually, control is costly and signals low trust in the counterpart that may compromise the relationship with the agent: the agent can react to perceived low trust from the principal by reciprocating it to the point of exploiting the loopholes in the control system (Holtz, 2013; Tang *et al.*, 2018). Alternatively, the principal may decide to exploit trust

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so that s/he may cut control (and costs) and, by showing trust in the counterpart, benefit from agent reciprocation. Thus, it is not a surprise that research stresses the role of trust as a source of competitive advantage (Barney and Hansen, 1994). Past research also stresses trust's capability to reduce transaction costs and forecasting bias (Bromiley and Cummings, 1995; Connelly *et al.*, 2018), its role in problem solving (Zand, 1972), and its support to cooperative behaviour (Fink and Kessler, 2010; Squire, Cousins, and Brown, 2009). Trust is also found to increase information sharing (Wu, 2008), reduce the cost of negotiation and lower conflicts (Zaheer, McEvily, and Perrone, 1998). In a similar vein, Howorth and Moro (2006, 2012) and Moro and Fink (2013) show that perceived trustworthiness can reduce the cost of debt and increase credit availability. All in all, extant research suggests that trust can play an important role in business relationships since it may reduce unmanageable complexity (Lewis and Weigert, 1985).

In fact, trust has been found to evolve through time (Lewicki and Bunker, 1996) and its formation and consolidation depends on relational aspects, that is the relation among actors (Bauke, Semrau, and Han, 2016) as well as on the role played by institutions as supporters and facilitators of trust (Hain, Johan, and Wang, 2016). In fact, research stresses the role of relation, social capital and institutional context as forces that work together in trust formation and development (Nooteboom, 2007). Thus trust is not blind faith in the counterpart since it typically grounds on some knowledge the trustor has about the trustee because of past relation as well as on the social and institutional context so that the decision to rely on trust is eventually a rational one (Uzzi and Lancaster, 2003).

However, trust may also have a dysfunctional role: Zahra *et al.* (2006) show the potential negative effects of excessive trust in different stages of business creation such as bias on opportunities searching, lack of objectivity, reduced feedback on proposed ideas, and loose

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controls. Moreover, by drawing from the law of diminishing return, Villena *et al.* (2019) document that trust may improve efficiency but up to a certain point since excessive trust can trigger lack of objectivity and opportunistic behaviour.

But what is trust? Scholars have offered various definition based on two approaches: behavioural (Deutsch, 1958) and psychological (Lewicki, Tomlinson, and Gillespie, 2006). The proponents of the behavioural approach argue that when an individual has high confidence that their trust will be fulfilled by the counterpart, the probability of engaging in trusting behaviour increases (Deutsch, 1958). An alternative approach grounds on the psychological tradition which emphasizes cognitive and affective processes (Colquitt, Scott, and LePine, 2007; Lewis and Weigert, 1985; Mayer, Davies, and Schoorman, 1995), suggesting that trust is based on the beliefs and judgment of whether the counterpart will behave in a trustworthy manner (Colquitt, Scott, and LePine, 2007; Lewicki, Tomlinson, and Gillespie, 2006; Mayer, Davies, and Schoorman, 1995). Thus, trust may be defined as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the trustor’s ability to monitor or control that other party” (Mayer, Davies, and Schoorman, 1995).

Key element of the quoted Mayer, Davies, and Schoorman (1995)’s definition of trust is the perception of other’s trustworthiness, i.e., ability (“skills, competencies and characteristics that enable a party to have influence within some specific domain”), benevolence (“the extent to which a trustee is believed to want to do good for the trustor, aside from an egocentric profit motive”), and integrity (“trustor’s perception that the trustee adheres to a set of principles that the trustor finds acceptable”). An additional trustworthiness dimension is openness, i.e., providing honest, detailed and complete information based on facts (Butler, 1991; Butler & Cantrell, 1984;

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Mishra & Mishra, 1994). Thus, trust can be described as the result of one fact-based component (e.g., ability) and one value-based component (e.g., benevolence, integrity) that are, in turn supported by one communication-based aspect (openness) that allows to access information and that “certifies” that the information is reliable. This argument is reinforced by Hosmer (1995) who, by discussing the ethical dimension of trust (“the expectation by one person, group, or firm of ethically justifiable behaviour [...] on the part of the other person, group, or firm in a joint endeavour or economic exchange”), argues that integrity, consistency, loyalty, and openness (Butler and Cantrell, 1984), are the representation of moral values, important ingredients for achieving a “good society” so that moral and ethical aspects are core to trust. The latter point also suggests that there is a clear intersection between trust and moral values (Hosmer, 1995) that, in turn is intertwined with religion (Hare, 2019) since moral values are shaped by religion (McKay and Whitehouse, 2015).

Trust and Islam

The principle “Do unto others as you would have them do unto you” is very relevant in Islam. Islam’s ethical system ensures benevolence/openness and accountability in individuals’ behaviours/actions while safeguarding social interests, i.e., to prevent any harm to a community (Ali, Al-Aali, and Al-Owaihyan, 2013). Thus, not only does Islam’s ethic reinforce the role of moral values, but it also strengthen cooperation among actors in exchange transactions (Ali, Al-Aali, and Al-Owaihyan, 2013). Moreover, Islamic teachings emphasize the importance of trustworthy behaviours (Abuznaid, 2009; Beekun and Badawi, 2005; Eggen, 2011; Ishak and Osman, 2016; Rice, 1999; Uddin, 2003). Hence, it is not a surprise that Mayer, Davies, and Schoorman (1995)’s concept of benevolence, as well as Nooteboom, Berger, and Noorderhaven, (1997)’s similar concept of habitualization, mirror the *Ihsan* “an act which benefits persons other

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than those from whom the act proceeds without any obligation” or good intention (Beekun and Badawi, 2005; Ishak and Osman, 2016). Also, ethical and moral values (Butler and Cantrell, 1984; Das and Teng, 2001; Hosmer, 1995) are the base of both Mayer, Davies, and Schoorman (1995)’s concept of integrity and Nooteboom, Berger, and Noorderhaven, (1997)’s concept of institutionalization and mirror Islam’s stress on “The partner who uses another’s property in trust should be an *Al-ameen*, a trustworthy person” (Beekun and Badawi, 2005). Finally, openness, in the sense of sharing weaknesses and important information (Butler and Cantrell, 1984; Mishra and Mishra, 1994; Rempel, Holmes, and Zanna, 1985) matches Islam’s encouragement to be honest and disclose defect in the goods during the business transaction (Ishak and Osman, 2016; Rice, 1999; Uddin, 2003).

These moral and ethical values are at the core of Islamic culture via *Tawhid* (unity) that emphasizes the importance of brotherhood, sisterhood, solidarity, cooperation, and the feeling of belonging to the same *Umma* (mother/Islamic community) (Greif, 1994; Rice, 1999; Richardson, 2014). Indeed, past literature that explores *Tawhid* stresses its influence on business practices: it is found to shape personal values of fraternity, solidarity, believing in people, trust and honesty (Forster and Fenwick 2015), and to support the focus on the interest of the community (Lalonde, 2013) and on social project (Graafland, Mazereeuw, and Yahia, 2006); it allows for simplifying the negotiation with business partners that share the same beliefs, even by alleviating any cultural gap in international business (Richardson, 2014); it facilitates finding solutions by leveraging religious guidance (Richardson and Rammal, 2018); it reinforces the importance of building trust before a contract can be signed (Hofstede, Hofstede, and Minkov, 2010; Rice, 2004). Thus, it can be argued that the moral and ethical values that support trust (namely, benevolence and integrity) are common to Islam.

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Interestingly, these are also the characteristics of the collectivistic culture, that is a culture where the interests of the group prevails, where ties between individuals are strong, where more weight is given to norms than attitudes as determinants of social behaviour, and where a person's misbehaviour is disgrace to the entire family/clan (Hofstede, Hofstede, and Minkov, 2010; Hui and Triandis, 1986; Triandis, 1996). Literature also indicates that Islamic culture is characterised by high degrees of collectivism (Abeng, 1997; Forster and Fenwick, 2015; Graafland, Mazereeuw, and Yahia, 2006; Hofstede, Hofstede, and Minkov, 2010; Lalonde, 2013; Rice, 1999; Richardson, 2014; Richardson and Rammal, 2018) and this point is also supported by the relatively low individualism index score in Muslim countries such as Indonesia, Pakistan, Bangladesh, Malaysia, and Arab countries (Hofstede, Hofstede, and Minkov, 2010; Triandis *et al.*, 1986). Moreover, managers working in Muslim countries are found to have a high tendency towards collectivism (Ali *et al.*, 1997), and Muslim business leader are found to emphasizes the benevolence aspect, such as giving *Infaq* (voluntary charitable act) (Abeng, 1997). Similarly, British people who convert to Islam consider the collectivistic features of Islam, such as brotherhood, solidarity, and mutual friendship as a key factor in their decisions (Soutar, 2010). Actually, the collectivistic nature is so embedded in Islam that evidence can be dated back to the 11th century Maghribi traders (part of Islamic world), a society which emphasized an intensive communication network, collective punishment (i.e., reputation of dishonest trader spread quickly among the society), and mutual responsibility among the members of the same society (*Umma*) (Greif, 1994).

Doney, Cannon, and Mullen (1998) point out that collectivistic societies mainly use prediction (Rempel, Holmes, and Zanna, 1985), intentionality and benevolence (Mayer, Davies, and Schoorman, 1995) so that the ethical/moral vision (“value-shared” approach), and the

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transference process, (the reliance on trustworthy third parties in order to take decision about whether to trust or not) have a key role in trust formation. However, this value-shared approach implies a greater effort and time to build trust: as far as benevolence of the counterpart is concerned, trustor has to access great amount of additional information from different sources (transference process), a typically complex and time-consuming process; likewise, in order to evaluate integrity, a lot of interaction (and time) is needed. Thus, value-based trust is resource-absorbing and time-consuming even if, once established, it is expected to be very reliable and resilient and evolve into identification based trust (Kramer and Lewicki, 2010; Lewicki and Bunker, 1996). Moreover, the resource consuming process affects the “radius” of trust, i.e., “the width of the circle of people among whom a certain trust level exists” (Van Hoorn, 2015, p.269) since the limited resources available (mainly time) imply that the evaluation can be limited to a reduced number of candidates. All in all, collectivistic culture relies on “narrow radius of trust” (Van Hoorn, 2015) so that trust tends to be limited to people with closer ties but where the level of trust inside the radius is very high.

The intrinsic important role of value-based trust in the Islamic collectivistic culture is amplified by the lack of judicial efficiency in countries belonging to the Organization of Islamic Cooperation (OIC) (Hoskisson *et al.*, 2000). In this context, it becomes even more important to trust the business partner since only the trust in the business’ partner can provide a proper “protection” to the trustor: belonging to a group with whom one has developed strong relationship based on trust, may be an alternative effective approach to compensate for a weak rule of law and the uncertainty of the environment (Bohnet, Herrmann, and Zeckhauser, 2010).

To sum up the foregone discussion in section 2, we propose the following hypothesis:

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H: In the Islamic culture, value-based trust is more relevant than competence-based trust in business relationship

Context, Data and Methodology

The Context Under Investigation

To test our hypotheses, we focus our attention on the trust of the bank credit officer has in their clients when deciding on giving credit. There are different reasons that make such a context an effective setting. First, banks face high level of information asymmetry in dealing with their customers. The information asymmetry generates the possibility that firm's owner can act opportunistically (Dyer and Chu, 2003) diverting money from the original purpose in order to maximize their own return. In addition, the information asymmetry implies the risk that firm's owner can cheat on the bank. In these scenarios, bank's credit officer has to decide on whether to rely more on stricter controls (complex covenants, etc.) or to rely more on trust (assessing the values that drive customer's behaviour). Needless to say the former approach is expensive both upfront and during the business relationship (Stiglitz and Weiss, 1981) while trust may reduce transaction cost (Barney and Hansen, 1994). Second, bank credit officers have to assess the ability of firm's owners and managers to deal with the challenges they face (Das and Teng, 2001). Again, they can improve the firm's assessment by allocating greater effort and time but such activities are time consuming and expensive (Stiglitz and Weiss, 1981). Trust and more specifically the perceived ability of the firm's owner, may reduce cost by limiting *ex ante* effort as well as *ex post* monitoring (Dyer and Chu, 2003) and reduce the perceived risk (Das and Teng, 2001; Nooteboom, Berger, and Noorderhaven, 1997). Third, the Islamic world has developed a financing system that takes into consideration the religious teaching of Islam. Thus,

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the impact of Islamic culture and religious aspects on trust may be amplified in the context of the financing. All in all, trust in bank-firm context implies a clear trade-off between risk and reward and so that the context is suitable for the investigation of the role of trust in business relationships (Howorth and Moro, 2006). In addition, by performing the analysis in a country with both Islamic and western style financial system, it is possible to appreciate the real role of trust in the Islamic context.

We focus on Indonesia since it is the biggest Muslim country in the world with over 207 million relatively active Muslimsⁱⁱ. Another feature of Indonesia is that it is facing a growing role of religious actors (e.g., Mosque, Islamic seminary school, and Islamic school) as well as religious practice that suggests an increasing importance of religious ideas including norms, values, and principles of Islam. Past literature (e.g., Berger *et al.*, 2005; Cole, Goldberg, and White, 2004; Stein, 2002) suggests the different approach between large and small banks (the former tend to exploit transaction lending while the latter tend to rely on relationship lending) and that trust is particularly relevant in the case of relationship lending (e.g., Harhoff and Körting, 1998; Hernández-Cánovas and Martínez-Solano, 2010; Howorth and Moro, 2006, 2012; Kautonen *et al.*, 2020; Lehmann and Neuberger, 2001; Moro and Fink, 2013; Palazuelos, Crespo, and Del Corte, 2018). Indonesia has a banking system that relies on both large and small banks and we collected data from both. However, irrespective of the bank dimension, it is very common that credit officers explore the quality of small business owners by interviewing them, visiting the business places and the family members, and digging the reputation of the firm owners from the neighbours, suppliers, and buyers. Moreover, credit officers tend to rely on existing customers who know the firm's owners to access further information (transference process). Thus, not only is relationship lending the standard approach for small banks, it is also

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very common in large ones.

Data Collection

Our research is based on a survey circulated in 55 banks in Indonesia. The survey was conducted between July and September 2018. The research team obtained the endorsement of the chairman of Financial Service Authority and the chairmen of banks association to increase bank participation. Then, the research team contacted the banks. In order to improve the response rate, the research team offered to the credit officers involved in filling the survey, a *batik* shirt or a scarf from British Premier League football team and also an iPad and two phones as draw prizes. Not only did this approach increase the answering rate but it also allowed us to have a proper measure of the answering rate even if we did not have a direct contact with each credit officer. By comparing the number of sets given to banks and the number of credit officers that reply to the survey we were able to work out the response rate: since 2,284 sets were distributed among the credit officers (together with the survey) and obtained 1,687 complete surveys back, our response rate is around 73.86%.

The respondents are bank credit officers with active relations with firm owners. Each respondent was asked to fill in 3 to 5 questionnaires based on their relationship with 3 to 5 owners of micro or small businesses (according to Law 20/2008 of Republic of Indonesia)ⁱⁱⁱ, selecting them from the alphabetical list of the customers they look after.

Before data collection, we performed content evaluations on the survey by asking feedback from experienced credit officers. We also performed back translation to ensure there is no loss in the meaning. Finally, we performed a field test by visiting 15 banks and testing the questionnaire with them.

The core components of the survey are the items that measure the bank credit officer's

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trust in the firm's owner. Our research relies on 10 items inspired by previous studies (Howorth and Moro, 2012; Mayer and Davis, 1999; Moro and Fink, 2013; Spreitzer and Mishra, 1999) and 1 new item measured using a Likert scale, 1=strongly disagree to 5=strongly agree. We carefully selected them from the available inventories to take into consideration the context under investigation. We focused on items that are able to take into consideration, together with the value-based dimension, the collectivist context under consideration. For instance, the benevolence items "Tries hard to be fair in dealings with others (suppliers, buyers, partners, etc)" and "Will do the best to pay on schedule even in the short cash situation" consider the willingness to cooperate that characterises the collectivistic culture. Similarly, the item "Shares information in detail (based on data and fact)" or "Shares sensitive or important information with me" catch the willingness to be transparent in the relationship, sharing of outcomes, and feeling of involvement in other's activities, aspects that are present in collectivistic societies.

We also used a questionnaire to collect primary data regarding the demographic profile and trust propensity of the respondents, characteristics of the banks, characteristics of the firms, relationship between banks and firm owners, trustworthiness evaluation from the credit officers, and financing decision. We used financing approval as well as the percentage of the amount approved compared to the amount applied for as dependent variables.

Methodology

Exploratory factor analysis (EFA) is used to reduce the trustworthiness items into latent constructs. Then, we entered the constructs as core independent variables. Since the financing approval is a dichotomous variable, we employ Probit regressions. For the percentage of the financing approved, we performed Tobit regressions (Amore and Murtinu, 2019).

The very high response rate discussed above is quite reassuring against the non-response

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bias. However, we perform the traditional test on the non-response bias (comparison between early and late responses) but the difference is statistically not significant. To reduce the problem of common method bias, we guarantee the anonymity of the respondents, anonymity of banks in which they work, and the anonymity of the firm owners with whom the respondents have relationships. We also performed four others procedural remedies and one statistical remedy against common method bias (Podsakoff *et al.*, 2003; Podsakoff, MacKenzie, and Podsakoff, 2012) (Table 5 in appendix).

In our model, endogeneity may occur as the result of simultaneity. To address the potential endogeneity between the evaluation of firm owner's trustworthiness and the financing approval, the instrumental regression is applied. The evaluation of the firm owner's trustworthiness is instrumented by three variables, namely the firm's owner engagement in religious activities, the firm's owner engagement in community activities, and the firm's owner engagement in business association activities. Religious people might have high integrity (see Baele, Farooq, and Ongena, 2014). In the same vein, when firm owners are active in the community it might show they have high level of benevolence/care for other people. In addition, being an active member of the community might reflect the reputation of the firm owner and could prevent firm owner from behaviour that could ruin his/her reputation.

Descriptive Statistic and Factor Analysis

The dataset contains 1,687 observations: 960 are from small (rural) banks while the rest (727 observations) are from large banks. The range of the relationship duration is between less than a year and 25 years (mean 3.45 years, median 3 years). On average, each firm tends to concentrate the banking relationship with two banks. The mean time to process financing

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application is 5.4 days with the fastest decision in 1 day and the longest in 30 days. The mean age of the firms is 16.60 years. Female borrowers accounted for 24.48% of total borrowers.

Table 1 shows descriptive statistics.

INSERT TABLE 1 ABOUT HERE

Mayer, Davies, and Schoorman (1995) model suggest that trust is also a function of a personal predisposition. To control for personal predisposition to trust, we use three items. We ask credit officers to evaluate the statements: “Most people can be counted on to do what they say they will do” (reverse score), “One should be very cautious with strangers”, and “These days, you must be alert or someone is likely to take advantage of you”.

We use 11 items to measure the trustworthiness of the firm owners. The highest average score is the ability dimension “The firm owner has very good knowledge of the current market in which they operate” (4.00) and the lowest average scores is the benevolence dimension “The firm owner shares sensitive or important information with me” (3.48). EFA was employed to reduce larger data into smaller sets of latent constructs. Table 2a and 2b illustrates the factor analysis results.

INSERT TABLE 2 ABOUT HERE

In line with Moro and Fink (2013), our study splits trust into two factors, namely ability and benevolence-integrity. This approach allows us to explore the expected different role (and related economic impact) played by ability (trust based on facts and linked to the individualistic

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dimension of the culture) and benevolence-integrity (trust based on shared values and linked to the collectivistic dimension of the culture). Besides, it also follows Tinsley (1996)'s idea that ability and benevolence-integrity are different. Value-based aspect of trust (benevolence and integrity) load in one factor and Bartlett test of sphericity is significant ($p < 0.01$) with KMO score of 0.92. All of the items show communalities between 0.41 and 0.69 and it is acceptable (Costello and Osborne, 2005). The amount of variance explained by the factor is 58.01% with the score of Cronbach alpha being 0.8932. Also, competence-based trust (ability) items load in one factor. The Bartlett test of sphericity is significant ($p < 0.01$) with a KMO score of 0.675 with communalities between 0.60 and 0.79. The amount of variance explained by the factor is 71.68% with the score of Cronbach alpha of 0.7937.

Table 3 shows correlation coefficients in full sample.

INSERT TABLE 3 ABOUT HERE

Value-based trust (benevolence and integrity) shows the expected positive correlation with both dependent variables, i.e., the financing approval and the percentage of the requested amount that has been approved (0.467 and 0.503). Also, ability shows the expected positive correlation with both dependent variables and they are, as expected, slightly smaller (0.447 and 0.484). All in all, correlation coefficients offer initial insight to our research proposition, i.e., trust could facilitate business relationship in Islamic culture with value-based trust playing a more important role. However, the relative strength of these variables to financing approval and financing proportion need to be explored in further analysis.

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Analysis

Financing Approval Regression

Table 4 (models 1 and 2) show the results of Probit regressions and Table 4 model 3 show the result of a Tobit regression. In models 1 and 2, the dummy dependent variable measures the financing decision, i.e., approval (1) as opposed to rejection (0).

INSERT TABLE 4 ABOUT HERE

Model 1 incorporates the set of variables that measure demographics, trust propensity of the respondents, firm factors, bank factors, and transactional variables. This model has no multicollinearity problems and has McFadden's Adj R^2 0.07 with the number of cases correctly predicted as 92.47%. Interestingly, the general predisposition to trust others is positive but marginally significant. Variable bank type is positive and significant at the 1% level ($p < 0.01$), suggesting that Islamic banks are more likely to approve the financing application. We also find the coefficient for the variable and multiple banks significant ($p < 0.01$). The same applies to relationship duration ($p < 0.01$) and multiple products, ($p < 0.01$): the more intense the relationship, the greater the probability of success of the financing application ($p < 0.01$). This result is in line with Gulati (1995) who finds that repeated interaction has a positive effect on the outcome of the relationship. In addition, the use of multiple products, and concentration of borrowing not only does increase the flow of information to the credit officers but also increases the exclusivity of the information.

In the second regression (model 2) we add value-based trust and competence-based trust as variables. This specification has McFadden's Adj R^2 0.357, suggesting that trust component

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explains the additional 28.7% of the total variance. The number of cases correctly predicted is 93.78% and the specification does not suffer from multicollinearity problems. Interestingly, value-based trust and competence-based trust work in tandem in supporting financing decisions by credit officers. More importantly for our research, marginal effect analysis shows that the relative strength of these variables is in line with our prediction: one-point increase in the benevolence-integrity will improve the probability of financing being approved by 4.1%, while a one-point increase in the ability will improve the probability of financing being approved by 3.5%. Similarly, a one standard deviation increase in variable benevolence-integrity and ability improves the probability of the financing being granted by 46.4% and 40.1% respectively. A one standard deviation increase in the duration of the relationship improves the probability of the financing being granted by only 24% suggesting that the economic impact of trust is twice higher than the impact of the duration of the relationship. The results support the point that in Islamic culture the level of trust relies more on benevolence and integrity and is in line with previous studies that show that in collectivistic societies, trust provides greater impact on the outcomes of relationship (Cannon *et al.*, 2010; Hewett and Bearden, 2001; Williams, Han, and Qualls, 1998). Moreover, marginal effects show that value-based trust has a greater economic effect than competence-based one.

The inclusion of trust variables has some minor effects on the significance level of the controls: trust propensity is not significant, bank size turns to be significant at the 1% level: a small (rural) bank is more likely to provide finance than a large bank; multiple products are not significant anymore, suggesting that once trust is established, additional source of information from the use of multiple products by firm officers becomes less important.

We also attempt alternative specifications (alternative combinations of variables).

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Interestingly, both value-based trust and competence-based trust always show positive and significant coefficients ($p < 0.01$).

Percentage Amount Approved Regression.

We also explore the impact of value-based trust and competence-based trust on the percentage of amount approved with respect the amount for which the firm applied (financing proportion). Since the dependent variable is continuous but constrained between 0% and 100%, we estimate the model using Tobit regression (Model 3).

In model 3, the specification does not suffer from multicollinearity problems. As far as the heteroscedasticity problem is concerned, we follow Amore and Murtinu (2019)'s bootstrapping standard errors. In model 3, there are no major changes in control variables. The new regression confirms previous results: we find a positive and significant coefficient for both value-based trust and competence-based trust ($p < 0.01$): the more the bank credit officer trusts the firm's owner, the greater the proportion of the loan approved. Again, these results indicate that value-based trust and competence-based trust work in tandem to support the proportion of finance obtained. More importantly, marginal effects analysis confirms that value-based trust has greater economic impact than competence-based trust on the amount of credit obtained. For one standard deviation increase in variable value-based trust there is a 10.77 points increase in the predicted value of financing proportion. For one standard deviation increase in variable competence-based trust there is a 9.675 points increase in the predicted value of financing proportion.

All in all, given the results obtained by looking at models 2 and 3, it is possible to argue that in Islamic culture, value-based trust has a greater "economic" role than competence-based trust so that the hypothesis is supported by our evidence.

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Robustness Check

To verify further our results, we perform a set of robustness checks. It can be argued that our regressions suffer from endogeneity. In order to verify whether this is the case, we perform an instrumental Probit regression. Results are not reported here for reason of space (results available from authors) but the evidence is in line with our original results.

It could also be argued that our analysis involves different levels of data since we have: 1) the bank, 2) the bank credit officer who is working in a certain bank, and 3) the firm. In fact, observations in the same group (credit officer-firm owner) are correlated because they share common cluster-level random effects (Williams, 2017). In addition, there are variables at the level of credit officer (i.e. their age), which may represent their experience and the accumulation of social capital (Ferrary, 2003) and trust propensity (Mayer, Davies, and Schoorman, 1995). However, because of the anonymity issue of the bank's name, we can only track the ID number of the bank's credit officers. To take into consideration these aspects, we performed a mixed effect Probit regression since random effects may occur in our multilevel data set at credit officer level. The mixed effect regression provides a result qualitatively identical to that obtained with the original Probit regression (results available from authors).

It is also important to check whether the role of trust depends on culture or on common religiosity between the actors. To isolate the role of actors' religion from that of culture we split the sample in two subsamples according to whether an area has a Muslims' population above or below the 93% threshold. Then, we re-estimate the models in the subsamples: if religion matters (instead of culture), we should have different results in the subsamples. In fact, we obtain similar results in the two sub-sample, consistent with the main results. Moreover, we interact a dummy variable (high/low Muslim population as defined above) with ability-based and value-based trust

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and enter dummy and interacted trusts in the original models so that the non-interacted variable catches the role of trust independent from religion. Also in this case, we obtain results in line with our main finding. These tests support further our key argument: trust is affected by the collectivistic culture not by single actor's religion.

Discussion

Our empirical findings offer a clear support to the argument that, in the collectivistic Islamic culture, trust has a very important functional role in business to business relationships: even if both the perceived ability and benevolence-integrity work in tandem in the business relationship, actors in the Islamic culture put more emphasis on the value-based trust business partners could bring into the relationship (Barney and Hansen, 1994). Interesting, not only do our findings support past theoretical works on the difference between competence-based trust and value-based trust (Connelly *et al.*, 2018; Tinsley, 1996), but, more importantly, they empirically show that the economic impact of value-based trust is greater than that of the competence-based trust in the collectivistic Islamic culture. Moreover, our additional checks reinforce the point that what matters is the collectivistic culture. This finding is not marginal since it implies that business relationships in the collectivistic culture benefit (in terms of economic gain) from the good amount of extra effort, time and energy (and related extra “costs”) that is needed in order to develop and consolidate value-based trust.

Trust in business relationships is not new to Islam. During the prophet's time (VII century), the *Shahibul maal* (investor) relied on trust, especially when financing businessmen by using profit-loss sharing contracts (Chapra, 2000). Later, in the 11th century, Maghribi traders also relied on trustworthy behaviour in their business activities (Greif, 1994). All in all,

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historically, trust played a relevant role in Islam. Our analysis shows that things did not change and even today, value-based trust and competence-based trust work in tandem in facilitating business relationships in the Islamic culture.

Why are these values so pervasive and persistent so to make value-based trust predominant in the Islamic collectivistic context? We argue that the answer lies on the impact Islamic teachings has in stimulating the development of collectivistic society (Abu Rida, 1998; Fekih, 1998; Jiang, Garris, and Aldamer, 2018; Lewis and Churchill, 2009). Islamic teachings focus on providing guidance to people, so that behaviour and action of people do not make any harm to the society (Ali, Al-Aali, and Al-Owaihian, 2013). In addition, by stressing that relationships without benevolence and integrity are detrimental to society, Islamic teachings implicitly point out the importance to invest in relationships. This happens irrespective of the high cost in developing relationships (e.g., visiting the counterpart in order to access further detailed information about their beliefs and opinion) and/or in exploiting the transference process (accessing data obtained via trusted third parties such as neighbours, friends, or other business partners). These resource-demanding practices (in terms of time and of effort) allow to build a very resilient form of social capital.

Intriguingly, Indonesia, where the survey is based, has a religious institutional environment that is supportive: institutions such as Islamic schools, Islamic seminary schools, and mosques support and facilitate the development of value-based trust. On the one hand they disseminate the values so that they are more and more embedded in the community: students from Islamic schools (*Madrasa*) trust others more than non-*Madrasa* students (Asadullah, 2016), suggesting that *Madrasa* promotes trusting behaviours, because of the curriculum which emphasizes altruism and a charitable behaviour; daily prayer and learning the Qur'an influences

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the trusting behaviour of the students. In line with Doney, Cannon, and Mullen (1998) argument about trust development in a collectivistic society, in such a cultural milieu the extra effort is considered a standard way of developing relationships so that it is not perceived as an unsurmountable burden. On the other hand, Islamic institutions increase the interaction among actors: the daily prayer allows to develop a deeper knowledge of the people in the community and of their values; the promotion of Islamic teachings rely on real life business examples such as keeping promises, honesty, debt repayment, thrifty behaviour and hard work (Abdullah, 1994) that further instil a trustworthy business behaviour. All in all, the collectivistic nature of Islam compounded by the support provided by the religious institutions/religious teaching and non-religious informal environment supports the development of value-based trust by stimulating and backing up the investment needed to build it. At the same time, the nature of the value-based trust and the type of religious institution that help its development tend to constrain a value-based trust radius. Needless to say an investment stimulated by the social fabric pays considering the positive outcome obtained by leveraging value-based trust.

The reasoning above strengthens further the central role that national culture and, specifically, the collectivistic one may have in defining the role played by different components of trust. More importantly, our results can be quite confidently extended to other context as long as they are characterised by a collectivistic culture possibly even beyond the Islamic world: the set of tests we perform provides quite solid empirical support to the past research that states the role of culture on trust formation.

Conclusion

Prior research reports that culture can have an impact on trust development and on trust

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outcomes in business-to-business relationship. We document that in the Islamic culture, trust has a functional role in facilitating business-to-business relationships: benevolence-integrity (value-based trust) works in tandem with ability (competence-based trust) to support the financing relationship between credit officers and firm managers. However, in line with our conceptual framework, in the collectivistic Islamic culture, value-based trust has a stronger positive impact on facilitating business to business relationship than competence-based trust has, and such an impact has relevant positive economic consequences (in our context greater access to credit). The evidence we obtain is justified by the fact that 1) trust development in collectivistic society relies more on benevolence/integrity than ability (Doney, Cannon, and Mullen, 1998); 2) collectivistic cultures have higher in-group trust but lower outer-group trust (Gambetta, 1988; Meier *et al.*, 2016); 3) there is a link between ethics and trust (St. Augustine, 426AD; Hosmer, 1995) and main objective of Islamic ethics/teachings is to provide guidance to the people so that their behaviour and actions do not harm society (Ali, Al-Aali, and Al-Owaihan, 2013).

Our findings open to an additional area of investigation to the growing body of literature on trust and culture (Cannon *et al.*, 2010; Doney, Cannon, and Mullen, 1998; Hewett and Bearden, 2001; Williams, Han, and Qualls, 1998; Zaheer and Zaheer, 2006): the economic impact of different component of trust in different cultural contexts. In fact, previous studies in trust and culture have not examined the role of trust in the Islamic culture. Based on Hosmer's (1995) study, we have shown the link between religious teachings, trust and culture and revealed that in the context of collectivistic culture, value-based trust has a greater economic impact than competence-based one. In fact, by creating and delineating moral values, religious teaching is a building block of culture (Hofstede, Hofstede, and Minkov, 2010) which in turn could affect the behaviour and action of people when engaging in business/economic activities. Besides, our

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results about the central role that the national culture may have in defining the role played by different components of trust go well beyond the Islamic world and suggest the key role of culture in trust formation by also showing how religion can in fact affect the role of trust in a specific context through its relationship with culture.

However, there are some limitations in our research that open to new areas. First, we test our framework on the relationship between bank credit officers and firm owners in Indonesia. Even if, as explained above, we consider this context a very effective one, nevertheless, additional research in other Muslim countries and regions should be performed to test the generalizability of our findings. Moreover, it can be interesting to explore how the role of trust differs in countries with a different culture (e.g., countries that present an individualistic culture). In addition, our study looks at the role of trust cross sectionally. It could be interesting to expand the research longitudinally, exploring how the role of trust and its link with religion/Islam can evolve through time. A further area of research is linked to the trust inventories. We rely on inventories that have been developed in the past mainly in the Anglo-Saxon world and such an approach allows us to discuss our evidence in the light of past research. We carefully selected the items to take into consideration the context under investigation (collectivistic culture). However, future research might focus on exploring further trust inventories and how to develop items that take properly into account the specificity of different cultures.

Notwithstanding its limitation, this research offers additional insight into how culture influences the development of trust by providing and testing a framework that explains how trust works in Islamic collectivistic context and suggests that theory in trust and culture should take religious teaching into account to provide a more complete understanding of business-to-business relationship.

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Table 1 Descriptive statistics

Variable's remark	Variable	Obs	Mean	Std. Dev.	Min	Max
Trust propensity score of the bank managers (factor) obtained from PCF	Trust_propensity	1687	5.80e-09	1	-5.247367	1.535406
Age of the banker	Banker_age	1687	34.97095	7.145728	20	60
Dummy variable, 1 if the debtor is a female, otherwise 0	Firm_manager_gender	1687	0.244813	0.430104	0	1
Dummy variable, 1 if the bank is a small (rural) bank, otherwise 0	Bank_size	1687	0.569058	0.495355	0	1
Dummy variable, 1 if the bank is Islamic bank, otherwise 0	Bank_orientation	1687	0.434491	0.495838	0	1
The age of the firm	Firm_age	1687	16.5981	15.27225	0	70
Duration to process the application	Day_process	1687	5.414345	4.235321	1	30
Dummy variable, 1 if the firm manager uses another product(s) from the bank, otherwise 0	Multiple_products	1687	0.713693	0.452169	0	1
The number of bank(s) in which debtor borrows	Multiple_banks	1687	1.232958	1.38314	0	10
The duration of the relationship between banks and debtor	Length_relationship	1687	3.447095	3.004215	0	25
Benevolence and integrity (factor) score obtained from PCF	Value-Based Trust	1687	-9.48e-11	1	-5.067719	2.241163
Ability (factor) score obtained from PCF	Competence-Based Trust	1687	-1.43e-09	1	-5.44337	2.045385
Dummy variable, 1 if the financing application is granted, otherwise 0	Financing_decision	1687	0.924718	0.263923	0	1
Percentage amount approved compared to amount applied for	Financing_proportion	1687	82.52777	26.98106	0	100

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Table 2a Trustworthiness variables: factor analysis of value-based trust

The firm manager...	Var.	Factor1	Uniqueness	Mean	Std. Deviation	Obs.
Is consistent in his words and behaviour	INTEGRITY 1	0.8323	0.3072	3.826912	0.6963122	1687
Is completely honest with me	INTEGRITY 2	0.8099	0.3440	3.745702	0.796607	1687
Tries hard to be fair in dealings with others (suppliers, buyers, partners, etc)	INTEGRITY 3	0.7794	0.3925	3.829283	0.6428886	1687
Will do the best to pay on schedule even in the short cash situation	BENEVOLENCE 1	0.7764	0.3972	3.881446	0.7266693	1687
Really looks out for what is important to me or my bank	BENEVOLENCE 2	0.7483	0.4400	3.833432	0.6679382	1687
Would acknowledge their own mistakes	BENEVOLENCE 3	0.6614	0.5625	3.822762	0.7289985	1687
Shares information in detail (based on data and fact)	BENEVOLENCE 4	0.8191	0.3290	3.661529	0.6963122	1687
Shares sensitive or important information with me	BENEVOLENCE 5	0.6431	0.5865	3.477771	0.8080689	1687

Table 2b Trustworthiness variables: factor analysis of competence-based trust

The borrower...	Var.	Factor1	Uniqueness	Mean	Std. Deviation	Obs.
Is able in identifying the needed resources (for business purposes)	ABILITY 1	0.8747	0.2350	3.945465	0.600999	1687
Has very good knowledge of the current market in which they operate	ABILITY 2	0.8861	0.2149	4.002371	0.6064063	1687
Is known to be successful at the things they try to do	ABILITY 3	0.7747	0.3999	3.732662	0.6984266	1687

*trustworthiness of the firm managers are measured by Likert scale, 1=strongly disagree to 5=strongly agree

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Table 3 Correlation coefficients

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Trust_propensity	1													
2 Banker_age	-0.0101	1												
3 Firm_manager_gender	0.0342	-0.0619*	1											
4 Bank_size	-0.120***	0.102***	0.0222	1										
5 Bank_orientation	-0.0624*	0.173***	0.00710	-0.177***	1									
6 Firm_age	-0.00778	0.0634**	-0.00975	0.000535	0.0475	1								
7 Day_process	-0.00815	-0.0120	-0.0248	-0.154***	-0.0123	0.0421	1							
8 Multiple_products	0.0448	0.0156	0.0160	-0.0480*	-0.143***	0.0132	0.0419	1						
9 Multiple_banks	-0.00460	0.120***	-0.0770**	0.0981***	0.135***	-0.0286	0.0367	-0.0280	1					
10 Length_relationship	-0.0315	0.126***	-0.0148	0.0491*	-0.100***	0.185***	0.0155	0.186***	-0.0148	1				
11 Value_based_trust	0.0953***	0.0155	0.0396	-0.142***	0.0846***	0.0384	-0.0252	0.206***	-0.113***	0.141***	1			
12 Ability_based_trust	0.0985***	0.0468	0.00870	-0.165***	0.0598*	0.0721**	0.0125	0.199***	-0.0328	0.112***	0.726***	1		
13 Financing_decision	0.0425	0.0633**	0.0109	0.00576	0.0416	0.0433	0.00351	0.142***	-0.0852***	0.129***	0.467***	0.447***	1	
14 Financing_proportion	0.0660**	0.0221	0.0324	-0.0516*	0.0615*	0.0436	-0.0291	0.143***	-0.106***	0.161***	0.503***	0.484***	0.873***	1

*** p<0.01, ** p<0.05, * p<0.1

Trust propensity score of the bank managers (factor) obtained from PCF (Trust_propensity), Age of the banker (Banker_age), Dummy variable, 1 if the debtor is a female, otherwise 0 (Firm_manager_gender), Dummy variable, 1 if the bank is a small (rural) bank, otherwise 0 (Bank_size), Dummy variable, 1 if the bank is Islamic bank, otherwise 0 (Bank_orientation), The age of the firm (Firm_age), Duration to process the application (Day_process), Dummy variable, 1 if the firm manager uses another product(s) from the bank, otherwise 0 (Multiple_products), The number of bank(s) in which debtor borrows (Multiple_banks), The duration of the relationship between banks and debtor (Length_relationship), Benevolence and integrity (factor) score obtained from PCF (Value-Based Trust), Ability (factor) score obtained from PCF (Competence-Based Trust), Dummy variable, 1 if the financing application is granted, otherwise 0 (Financing_decision), Percentage amount approved compared to amount applied for (Financing_proportion).

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Table 4 Probit regressions with the dependent variable: dummy financing approval (model 1 and 2) and tobit regression with the dependent variable: percentage amount approved compared to amount applied for (model 3)

VARIABLES	Probit Model 1	Probit Model 2	Tobit Model 3
Trust_propensity	0.0899* (0.0479)	0.0378 (0.0633)	1.420* (0.862)
Banker_age	0.0114 (0.00732)	0.00810 (0.00847)	-0.123 (0.120)
Firm_manager_gender	0.0494 (0.115)	-0.0197 (0.139)	-0.609 (1.950)
Bank_size	0.131 (0.102)	0.444*** (0.127)	0.876 (1.818)
Bank_orientation	0.313*** (0.106)	0.298** (0.132)	3.005* (1.726)
Firm_age	0.00214 (0.00329)	-0.00124 (0.00383)	0.00107 (0.0587)
Day_process	-0.00210 (0.0110)	-0.00480 (0.0125)	-0.322 (0.253)
Multiple_products	0.448*** (0.101)	0.0669 (0.128)	-1.057 (1.831)
Multiple_banks	-0.117*** (0.0316)	-0.0676* (0.0401)	-2.600*** (0.777)
Length_relationship	0.108*** (0.0239)	0.0797*** (0.0287)	1.623*** (0.329)
Value-Based Trust		0.464*** (0.0744)	10.77*** (1.208)
Competence-Based Trust		0.401*** (0.0756)	9.675*** (1.187)
Constant	0.388 (0.272)	1.110*** (0.327)	96.13*** (5.032)
Observations	1,687	1,687	1,687

Standard errors in parentheses (model 1 and 2), Bootstrap standard errors in parentheses (model 3)

*** p<0.01, ** p<0.05, * p<0.1

Dependent variable (model 1 and 2): Dummy variable, 1 if the financing application is granted, otherwise 0 (Financing_decision).
 Dependent variable (model 3): Percentage amount approved compared to amount applied for (Financing_proportion).
 Independent variables: Benevolence and integrity (factor) score obtained from PCF (Value-Based Trust), Ability (factor) score obtained from PCF (Competence-Based Trust).
 Controls: Trust propensity score of the bank managers (factor) obtained from PCF (Trust_propensity), Age of the banker (Banker_age), Dummy variable, 1 if the debtor is a female, otherwise 0 (Firm_manager_gender), Dummy variable, 1 if the bank is a small (rural) bank, otherwise 0 (Bank_size), Dummy variable, 1 if the bank is Islamic bank, otherwise 0 (Bank_orientation), The age of the firm (Firm_age), Duration to process the application (Day_process), Dummy variable, 1 if the firm manager uses another product(s) from the bank, otherwise 0 (Multiple_products), The number of bank(s) in which debtor borrows (Multiple_banks), The duration of the relationship between banks and debtor (Length_relationship)

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Table 5 Appendix: remedies undertaken against common method bias (based on Podsakoff et al. 2012).

Remedy and rationale	Implementation
<i>Procedural Remedy</i>	
Protecting respondent anonymity	Respondents do not need to mention their name, their bank's name and their financing applicant's name in our survey.
Reducing item ambiguity	We conducted a field test to bank's officers to find out ambiguous instructions and questions and also sensitive questions. In fact, we have adjusted several questions and instructions and also delete one question related to applicant's delinquency in the past as it was too sensitive.
Obtain measures of independent variables and dependent variables from different sources	Despite one person should answer both independent variables and dependent variables, the dependent variables do not contain feeling, perceptions, or beliefs. We also performed additional regression by using different dependent variable as a robustness check. The first dependent variable is the decision to grant or reject the financing application. The second dependent variable is the percentage of amount approved compared to amount applied for by the firm.
Proximal separation between independent variables and dependent variables	The questions related to the evaluation of firm manager's trustworthiness (main independent variable) are separated to the dependent variables' questions.
Eliminate common scale properties	Our main independent variable (trustworthiness) is measured by likert scale from 1 to 5. Our first dependent variable is measured using dummy (1 if financing application is granted, otherwise 0). Our second dependent variable is measured using number (percentage of amount approved compared to amount applied for).
<i>Statistical Remedy</i>	
Harman's one factor test	When all of the value-based trust items entered together into the unrotated principal component factor analysis, they only formed a single factor. This single factor accounted for a majority of the variance (>50%).
Instrumental variable technique	As our data did not pass the Harman's one factor test, we tried to perform iv-probit regression. Endogeneity may occur as a result of omitted variables. We performed iv-probit regression by using three instrumental variables, i.e., firm manager is actively engaged in religious activities, firm manager is actively engaged in community activities, and firm manager is actively engaged in business association activities. The instrumented variable value-based trust is positive and significant (at 5% level).

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Notes

ⁱ The Hadith is the collected traditions of the Prophet Muhammad, based on his sayings and actions.

ⁱⁱ 87% of the total population in Indonesia based on the 2010 national census by BPS-Central Bureau of Statistics Indonesia. In addition, as recently as January 2020, there are more than 500,000 mosques in Indonesia registered under Ministry of Religious Affair and in between 2008-2017, the average number of students in Islamic primary schools grew by 2.6% year on year (BPS) that combined with also 28,000+ Islamic seminary schools.

ⁱⁱⁱ Enterprises who have annual turnover less than around USD 176,000 could be categorized as micro or small business

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