

Review

Trustworthiness and margins in Islamic small business financing: Evidence from Indonesia

Ibrahim Fatwa Wijaya ^{a,b,*}, Andrea Moro ^c

^a Faculty of Economics and Business, Universitas Sebelas Maret, Jalan Ir. Sutami 36A, Kentingan, Kec. Jebres, Kota Surakarta, Jawa Tengah, 57126, Indonesia

^b Center for Fintech and Banking, Universitas Sebelas Maret, Jalan Ir. Sutami 36A, Kentingan, Kec. Jebres, Kota Surakarta, Jawa Tengah, 57126, Indonesia

^c School of Management, Cranfield University, College Rd, Cranfield, Bedford, Wharley End, MK43 0AL, UK

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Abstract

The existing literature has shown that, in the context of conventional bank lending to small businesses, trust reduces interest rates. However, the literature has not discussed the role of trust in supporting financing decisions, that is, the margin charged to small business managers at Islamic banks. We select *murabaha*, the most popular financing product offered by Islamic banks, and examine the role of trust in reducing margins charged for *murabaha*. We surveyed Islamic bank managers and asked them about the perceived benevolence (habitualization) and perceived integrity (institutionalization) of small business managers with whom they are dealing. We found trust is negatively associated with the margins charged to small businesses. Our results are robust to endogeneity.

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1. Introduction

The relationship with bank managers is important for small business firms (characterized by a lack of credit history and lower level of publicly available information) because it facilitates their access to finance (Berger & Udell, 1995; Bruns & Fletcher, 2008; Howorth & Moro, 2006). Studies have shown that the duration of the relationship, the concentration of borrowing, and the use of multiple banking products affect credit availability, interest rates, and collateralization (Berger & Udell, 1995; Blackwell & Winters, 1997; Cenni, Monferrà, Salotti, Sangiorgi, & Torluccio, 2015; Cole, 1998; Degryse & Ongena, 2005; Petersen & Rajan, 1994). Thus prior research suggests the important role of social ties in financing,

and recent research has started to cover this area, implying that social interaction, such as trust between bank managers and small business managers, needs to be taken into account, together with transactional variables, to explain the determinants of lending outcomes (Harhoff & Körting, 1998; Hernández-Cánovas & Martínez-Solano, 2010; Hirsch, Nitzl, & Schoen, 2018; Howorth & Moro, 2006, 2012; Kautonen et al., 2020; Kautonen, Fredriksson, Minniti, & Moro, 2020; Lehmann & Neuberger, 2001; Moro & Fink, 2013; Palazuelos, Crespo, & Del Corte, 2018). In particular, trust plays an important role in reducing monitoring efforts and transaction cost. This is very relevant to small business lending, a context in which the problem of asymmetric information is not marginal (Bromiley & Cummings, 1995; Chiles & McMackin, 1996; Howorth & Moro, 2006).

Previous literature on trust and bank lending looks at developed countries, such as Germany (Harhoff & Körting, 1998; Hirsch et al., 2018; Lehmann & Neuberger, 2001), Spain (Hernández-Cánovas & Martínez-Solano, 2010;

* Corresponding author. Universitas Sebelas Maret, Jalan Ir. Sutami 36A, Kentingan, Kec. Jebres, Kota Surakarta, Jawa Tengah, 57126, Indonesia

E-mail address: ibrahimfatwa@staff.uns.ac.id (I.F. Wijaya).

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Palazuelos et al., 2018), and Italy (Howorth & Moro, 2006, 2012; Moro & Fink, 2013), in the context of conventional banks. To enhance our exploration on the lending relationship, we focus on the financing relationship between Islamic bank managers and small business managers in an emerging country, Indonesia.¹ Indonesia is the biggest Muslim-majority country in the world by population and has a strong collectivistic culture (Hofstede, Hofstede, & Minkov, 2010; Hui & Triandis, 1986; Triandis et al., 1986). Using a comprehensive measurement of trust inspired by organizational literature, that is habitualization (benevolence) and institutionalization (integrity) (Nooteboom, Berger, & Noorderhaven, 1997), we explore whether Islamic teaching that instills strong values, principles, and norms in business-to-business relationships affects financing relationships.² These values are the building blocks of the trustworthiness dimensions proposed in Western literature (Nooteboom et al., 1997).

Our work is based on a survey of Islamic bank managers who have responsibility for managing financing for small and medium-size enterprises (SMEs). We asked them to evaluate the benevolence and integrity of small business managers. We also asked for information about financing provided by the bank to customers and the margins (fees) that are charged. We focus our research on the most popular financing product offered by Islamic banks: *murabaha*. Previous studies have shown that trust can reduce interest rates, increase credit availability, and reduce collateralization. However, whether trust plays an important role in reducing “margins” for *murabaha* has not been explored. Compared to standard Western loan products, the *murabaha* is a somewhat complex product (Abedifar, Molyneux, & Tarazi, 2013). The underlying transaction in *murabaha* involves buying and selling, rather than lending money: Islamic banks buy the goods/equipment requested by small business managers and then resell them, allowing them to pay in installments and charging a fee (markup).³ This reflects the fact that Islamic banks are allowed to set a margin (markup) but not to charge interest rates. Thus Islamic banks face markup risk: they cannot change the margin during the financing period. Furthermore, in cases of small business delinquency, Islamic banks can exact a penalty, but doing so yields no extra margin for the bank because it must be put into a charity account. Thus, any extension of the financing period does not generate an extra margin. All in all, the characteristics of *murabaha* can trap Islamic banks in low-yield

situations in cases of payment default, over and above the risk that products/assets are diverted to alternative use, that is, the risk of moral hazard. In that context, we expect trust may play an important role because expectations of opportunistic behavior can be reduced by bank managers’ high levels of perceived habitualization and institutionalization by small business managers (Hirsch et al., 2018; Howorth & Moro, 2006, 2012; Moro & Fink, 2013).

Our study finds that trust can reduce the margin (markup) charged to small business managers for Islamic financing products, that is, *murabaha*. Our result remains similar after taking into account the issue of endogeneity.

Our study makes three major contributions. First, our findings allow for generalization of the role of trust in the context of Islamic bank financing products. Previous literature showed that trust reduces interest rates charged to small business managers at conventional banks, but little is known about the role of trust at Islamic banks. The discussion of trust at Islamic banks is important because of the increase in assets held by Islamic banks globally, 4.3 percent year-on-year growth in 2020, compared with 12.4 percent in 2019, and assets at Islamic banks in 2020 totaled USD 1.841 trillion (Islamic Finance Service Board [IFSB], 2021). Second, our analysis concerns an emerging economy that thus far has received little attention in the literature. Most studies on trust and small business lending examine developed countries that have a strong culture of individualism (Hernández-Cánovas & Martínez-Solano, 2010; Hirsch et al., 2018; Howorth & Moro, 2012; Kautonen et al., 2020; Moro & Fink, 2013; Palazuelos et al., 2018). In order to generalize the role of trust in different cultures, it is important to explore the role of trust in areas with a strong collectivistic culture (Hofstede et al., 2010; Hui & Triandis, 1986; Triandis et al., 1986). Third, we use a more comprehensive measurement of trust inspired by organizational literature (Hirsch et al., 2018; Nooteboom et al., 1997). The trustworthiness of small business managers is measured based on two important values: we use factorized measures of habitualization and institutionalization, instead of dummies that capture the existence of a lack of trust (Harhoff & Körting, 1998; Hernández-Cánovas & Martínez-Solano, 2010), an approach that enables a more precise analysis of the role of trust.

The paper is organized as follows. Section 2 reviews the literature. Section 3 discusses the data and methodology, and the analysis is conducted in Section 4. We then present the discussion in Section 5, followed by conclusions in Section 6.

2. Literature review

2.1. Small business lending

Small businesses typically lack a credit history and reliable publicly available information, so it is quite difficult for them to access debt finance in the form of lending based on financial statements or credit scores/rankings, using credit technology that exploits the available public information (Berger & Udell, 1995; Howorth & Moro, 2006). In this context, the lending

¹ We use the term “financing,” instead of “lending,” as it is more appropriate in the context of Islamic banks.

² Islamic teaching stresses the important role of values such as honesty (Abeng, 1997; Ishak & Osman, 2016; Uddin, 2003); good intentions (Ishak & Osman, 2016); transparency in relationships (Rice, 1999; Uddin, 2003); fairness in contract negotiation (Rice, 1999); unity or cooperation (Rice, 1999); integrity (Beekun & Badawi, 2005, p. 136); and *ihsan* (benevolence) (Ali et al., 2013).

³ In practice, Islamic banks can appoint small business managers to buy the goods/equipment for themselves (*murabaha* with a *wakala* scheme). However, two invoices are provided for the transaction: one invoice from the supplier of the goods/equipment to the Islamic bank (buyer) and one invoice from Islamic bank (seller) to small business managers.

technology that can support decision-making in small business financing is relationship lending (Berger & Udell, 2006). The key element of relationship lending is the accumulation of soft information, for example, the character and reliability of borrowers (Berger & Udell, 2002).

The personal profile of small business managers is an important aspect of bank lending as the motivation and values held by small business managers determine the success of the business, which in turn affects the repayment of bank loans (Ferrary, 2003). Therefore, bank managers need to explore soft information from different sources, which can be gathered from repeated interactions with small business managers or their neighbors, suppliers, customers, and so forth (Berger & Udell, 2006; Howorth & Moro, 2006).

Empirical evidence shows that relationship lending offers several important advantages for small business financing. For instance, the duration of the relationship is positively associated with credit availability (Cenni et al., 2015; Cole, 1998; Hernández-Cánovas & Martínez-Solano, 2010; Petersen & Rajan, 1994) but negatively associated with interest rates (Berger & Udell, 1995) and collateralization (Harhoff & Körting, 1998). The duration of the relationship can reduce the frequency of bank-firm monitoring contacts (Sampagnaro, Meles, & Verdoliva, 2015); the concentration of lending in one or few banks can reduce the borrower's interest rate (Blackwell & Winters, 1997); and the scope of the relationship, that is, the firm buying other products from the bank and executing most of its payments via the bank, is negatively associated with interest rates (Degryse & Cayseele, 2000) and existing financial services, such as saving accounts and financial management services, have a positive association with credit extension (Cole, 1998). At the same time, past literature offers contradictory findings about the impact of relationship lending on interest rates. The duration of the relationship appears to reduce interest rates in lines of credit (Berger & Udell, 1995), but other studies find that the longer the duration of the relationship is, the higher the interest rates charged to the borrowers (Angelini, Di Salvo, & Ferri, 1998; Degryse & Cayseele, 2000; Hernández-Cánovas & Martínez-Solano, 2010). The research also finds no significant effect of relationship duration on interest rates (Harhoff & Körting, 1998; Petersen & Rajan, 1994). The “dark side” of relationship lending can be explained by “holdup,” that is, situations in which the lender has a monopoly of information about the borrower, which in turn locks in borrowers with the lender (Sharpe, 1990).

In fact, the duration of the relationship does not necessarily reduce risk. Social interaction, such as trust between bank managers and firm managers, needs to be taken into account, together with transactional variables, to explain the determinants of lending outcomes, for example, credit availability, collateralization, and the cost of debt (Lehmann & Neuberger, 2001) because high-quality relationship characterized by trust can reduce interest rates (Howorth & Moro, 2012). This aspect emphasizes the importance of the personal characteristics of small business managers in extending bank lending, as suggested by Ferrary (2003, p. 676): “It is also

necessary to understand the borrower's personality. Evaluation of his motivations and his entrepreneurial competencies is needed to anticipate the probabilities of a project's success.” Arguably, the success of the project/business has a significant impact on the success of loan repayment. Moreover, and more relevantly for our research, the effect of relationship lending on the cost of debt may also be affected by the lending product (Berger & Udell, 1995). For instance, a line of credit is the representation of a “relationship-driven” lending product and is the opposite of “transaction-driven” products (Berger & Udell, 1995) that are better represented by a collateralized loan such as a mortgage. Thus relationship lending is believed to play a stronger role in lines of credit than in mortgages (Harhoff & Körting, 1998).

However, few works on bank lending and trust have examined the role of trust on the cost of debt. In addition, no research has been conducted to explore the impact of trust on the cost of debt (margin) in non-Western lending products, for example, in Islamic financing products, whose characteristics differ from those of Western ones.⁴

2.2. Trust and bank lending

We rely on the framework proposed by Nooteboom et al. (1997). This framework suggests that intentional trust or the subjective probability that one is expected to act in a non-detrimental way (Mayer, Davies, & Schoorman, 1995) is the source of cooperation and relies on two salient dimensions: the “institutionalization” of values and norms that constitute an ethics of transactional relationship; and “habitualization,” which involves familiarity and mutual understanding between actors (Nooteboom et al., 1997).

Trust is an important aspect in business-to-business relationships because it increases confidential information sharing (Dyer & Chu, 2003). Trust promotes cooperation (Morgan & Hunt, 1994); it increases a party's intention to engage in transactions in the future (Doney & Cannon, 1997); it reduces the cost of negotiation and conflict (Zaheer, McEvily, & Perrone, 1998); it reduces monitoring effort (Chiles & McMackin, 1996); and it reduces transaction cost and forecasting bias (Bromiley & Cummings, 1995). Clearly, the role of trust in business-to-business relationships is also relevant to small business financing because asymmetric information is the salient problem. In fact, closer monitoring can be employed to reduce the problem of adverse selection and moral hazard, but it is not without cost (Stiglitz & Weiss, 1981). At the same time, perceived benevolence and integrity can help to reduce the expectation of moral hazard or relational risk, for example, opportunistic behavior, which in turn may affect the repayment of small business loans (Das & Teng, 2001; Moro & Fink, 2013). Empirical evidence supports the argument that trust is relevant to banking (Harhoff & Körting, 1998; Hernández-Cánovas & Martínez-Solano, 2010; Hirsch

⁴ Instead of charging its customers interest, Islamic banks charge customers a fixed markup (margin) or require profit-loss sharing.

et al., 2018; Howorth & Moro, 2006, 2012; Kautonen et al., 2020; Lehmann & Neuberger, 2001; Moro & Fink, 2013; Nguyen, Le, & Freeman, 2006; Palazuelos et al., 2018), and mutual trust is found to be negatively associated with collateral requirements and the cost of debt in lines of credit (Harhoff & Körting, 1998). A stable relationship as a proxy for trust is found to be negatively associated with loan pricing (Lehmann & Neuberger, 2001), whereas a high flow of information from the borrower to the bank increases the probability of loan approval (Lehmann & Neuberger, 2001). Hernández-Cánovas and Martínez-Solano (2010) reveal that trust is positive and significant in predicting the probability of loan renewal of short-term credit and negatively associated with the cost of debt (Hernández-Cánovas & Martínez-Solano, 2010). The perceived trustworthiness of borrowers by banks' managers is negatively related to the cost of debt of overdrafts (short-term credit) (Howorth & Moro, 2012) but positively associated with credit availability (Moro & Fink, 2013). The loan officers' perception of SMEs' competence and honesty is positively associated with the granting of credit (Palazuelos et al., 2018). Actually, both dimensions of interorganizational trust, i.e., habitualization (benevolence) and institutionalization (integrity), positively influence the quality of credit negotiations (Hirsch et al., 2018). Furthermore, habitualization has a strong positive impact on the perception of the reliability of hard information and has negative association with the importance of hard information, suggesting that, after trust is established, hard information is less important to banks (Hirsch et al., 2018). Finally, both perceived trustworthiness and information accuracy are positive and significantly related to credit access (Kautonen et al., 2020). However, the impact on credit access of interaction between perceived trustworthiness and information accuracy is negative and significant, which suggests that perceived trustworthiness has a stronger effect when information accuracy is low (Kautonen et al., 2020).

2.3. Trust and Islam

In Islam, one of the most important attitudes for people to have is *tawakkul* (trust in God). This is important because trust is a prerequisite for faith, as mentioned in the Quran (5:23): “If you are true believers, put your trust in God.” Other verses mention the intimate relationship between faith and trust in God: “Let the believers put their trust in God” (Quran 5:11, 9:51, 14:11, 58:10, 64:13; Eggen, 2011). The verses in the Quran urging people to trust God are grounded on the moral ontology in which God is trustworthy: “put your trust in God: God is enough to trust” (Quran 33:3; Eggen, 2011). Therefore, it is not surprising that one of the most salient attitudes in social ethics is *amana* (being worthy of trust) by both God and other people (see Quran 4:58, 23:8, 70:32; Eggen, 2011). The root of *amana* means “trust,” as opposed to “betrayal” and “safety,” as opposed to “fear” (Eggen, 2011). Eggen (2011) concludes that the notion of *amana* in the Quran has three aspects: (1) *amana* in obligatory affairs (Quran 8:27); (2) *amana* as deposits (Quran 4:58; see also Rice, 1999; Uddin, 2003); and (3) *amana* as trustworthiness (honesty and integrity) (Quran 28:26).

According to Eggen (2011), the main antithesis of trust is *khiyana* (betrayal), which is meaningful in the reduction of faithfulness or the neglect or failure of *amana*, or when someone entrusted with something is not sincere. The meaning of *amana* in the Quran is in line with the meaning of trust in Western literature: “Expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon” (Rotter, 1967). The arguments presented above suggest that the Islamic teachings of *tawakkul* and *amana* are relevant to business-to-business relationships, especially in reducing the transaction cost (Chiles & McMackin, 1996; Dyer & Chu, 2003; Fukuyama, 2001).

Literature on Islamic business ethics quotes many verses from the Quran and the Sunna that support honesty (Abeng, 1997; Ishak & Osman, 2016; Uddin, 2003)⁵; good intentions (Ishak & Osman, 2016)⁶; transparency in relationships in which defects have to be disclosed (Rice, 1999; Uddin, 2003); fairness in contract negotiations (Rice, 1999); unity or cooperation (Rice, 1999); integrity (Beekun & Badawi, 2005, p. 136); and *ihsan* (benevolence) (Ali, Al-Aali, & Al-Owaihian, 2013). A recent study on Islam and trust shows that value-based trust has a stronger impact than ability-based trust in business-to-business relationships (Wijaya, Moro, & Belghitar, 2021). Overall, Islamic ethical dimensions and trustworthiness dimensions of Islam are in line with the trustworthiness dimensions in Western literature, such as benevolence and integrity (Nooteboom et al., 1997).

2.4. Financing product offered by Islamic banks: *Murabaha*

The most popular financing product in Islamic banks is a *murabaha* (for recent data, see Miah & Suzuki, 2020). It is somewhat more complex than a conventional loan (Abedifar et al., 2013): the Islamic bank, first, buys the goods requested by the customer and, then, sells the goods to the customer (i.e., a firm) with payment in installments by charging the original price plus an additional (trade) margin (Abedifar et al., 2013).⁷ The markup (margin) is agreed on in advance and cannot be changed during the period of financing.⁸ This implies

⁵ “Woe to those who deal in fraud” (Quran 83:1), and “Observe the weight with equity and do not make the balance deficient” (Quran 55:9).

⁶ “The reward of deeds depends upon the intentions and every person will get the reward according to what he has intended. So whoever emigrated for worldly benefits or for a woman to marry, his emigration was what he emigrated for” (*hadiths* narrated by Bukhari).

⁷ When Islamic banks hold goods before selling them to the business customers, the banks can risk a loss because of fluctuation in the price. In order to deal with this risk, in practice, Islamic banks only hold goods (ownership status) for a short time. This is also why *murabaha* is akin to a conventional loan, because Islamic banks bear almost no ownership risk (Baele et al., 2014; Khan, 2010; Kuran, 1995).

⁸ In order to deal with the fixed markup problem, Islamic banks can: (1) convert the contract from a *murabaha* to profit-loss-sharing financing; (2) attach a late charge (*ta'zir*) (Ariffin, Archer, & Karim, 2009); and (3) ask for compensation (*ta'widh*), but the amount cannot be mentioned in advance and must be based on actual expenses.

that the income for the bank is formally the result of a trade, not the result of a financial transaction. In addition, Islamic banks are prohibited from adding charges if the firm is delinquent in repayment, because if the *murabaha* is thus extended, the bank does not earn additional income. In addition, Islamic banks have to monitor whether their customers run their businesses in accordance with Islamic principles, such as not serving pork or alcoholic beverages (Izhar, 2010), increasing the monitoring responsibilities (with related costs) of the bank. Islamic banks face the potential of a low yield due to the characteristics of fixed markups and complex financing schemes involved in *murabaha*, especially when small business managers behave opportunistically.

However, we expect that perceived benevolence (habitualization) and integrity (institutionalization) play important roles in *murabaha* financing decisions because trust can reduce transaction cost and monitoring efforts as they help reduce moral hazard and opportunistic behavior and Islamic teachings encourage Muslims to hold values that support trust and integrity in business relationships. Thus, we propose that trust plays an important role in *murabaha* because it is negatively associated with the margin paid by small businesses.

3. Data and methodology

3.1. Data collection

Our research is based on primary data collected from Indonesian banks. We selected 16 rural (small) Islamic banks in two areas: greater Surakarta and greater Yogyakarta in Indonesia. In addition, we also selected 3 large Islamic banks with observations in several provinces. All 19 banks are fully fledged Islamic banks as they do not operate as subsidiaries of conventional banks. We have collected a total of 520 observations. Rural (small) Islamic banks typically operate in local areas, have no automated teller machines (ATMs), and do not offer foreign exchange services.

To increase the participation of respondents, the research team secured the formal support of the chairman of the Financial Services Authority in greater Surakarta and the chairman of the Islamic Banks Association in greater Surakarta and greater Yogyakarta. Then the team contacted the selected banks. We also offered Premier League football team scarves or *batik* cloth to those who were willing to participate in the survey as well as three prizes: an iPad and two mobile phones.

Our survey is part of a larger survey that examined the role of trust in Islamic culture in Indonesia (Wijaya et al., 2021). We focus on the role of trust in reducing margins in *murabaha*, which can be used by small businesses to obtain either working capital or equipment. We do not take into account the additional advisory role of Islamic bank managers on the use of assets in generating income.

The respondents are Islamic bank managers with active relations with small business managers who were asked to fill in a questionnaire based on their relationship with three or four owners of micro or small businesses (according to Law 20/2008 of the Republic of Indonesia). We asked them to

alphabetize the list of small business managers with whom they have a relationship and select the first three or four in that list. This approach ensured randomness in the constructing the sample.

Our sample does not include information about whether the banks provide funds to individuals or groups of people because the unit of analysis is the “entrepreneur/manager” of the firm, which can be an individual (the entrepreneur) or a group of people (or a small company).

Before distributing our questionnaire, we performed content evaluation by obtaining feedback from two experienced bankers in Indonesia and two survey experts. We also performed back translation to ensure there was no loss in the meaning of the translation from English to Indonesian. Finally, we conducted field tests by visiting 15 bankers to test the questionnaire and obtain feedback from them. As a result of this process, we dropped one question related to late payment because it was too sensitive and made some minor adjustments in the questionnaire.

The core components of the survey are the items that measure bank financing officers’ trust in firm owners. Our research relies on seven items inspired by previous studies (Howorth & Moro, 2012; Mayer & Davis, 1999; Moro & Fink, 2013; Spreitzer & Mishra, 1999) and one new item measured using a Likert scale, from 1 (strongly disagree) to 5 (strongly agree). We also used a questionnaire to collect primary data regarding the trust propensity of the respondents, characteristics of the firms, relationship between Islamic banks and firm owners, trustworthiness evaluation from the Islamic bank managers, and financing decisions.

3.2. Methodology

We used exploratory factor analysis (EFA) to reduce the trustworthiness items into latent constructs. The objective of EFA is to explain the correlations among variables without an underlying structure caused by latent variables (Fabrigar et al., 1999). Thus, we use the constructs as core independent variables. We use probit regression because our dependent variable is a dummy for the special margin (below the market rate).

To reduce the problem of common method bias, we guarantee the anonymity of the respondents, the banks at which they work, and the firm owners with whom the respondents have relationships. The survey does not ask respondents for their name, their bank's name, or their firm owner's name. We also employ four other procedural remedies against common method bias. The details of the measures taken against common method bias (Podsakoff et al., 2003; Podsakoff, MacKenzie, & Podsakoff, 2012) are reported in Appendix Table 1.

Our model might be subject to endogeneity problems, that is, unobservable explanatory variables: a belief that misusing financing could be punishable by God in the hereafter could shape the actions and behavior of the firm owner; and a feeling of embarrassment or fear of social sanctions by society and the business community when misappropriating financing could also shape the behavior and actions of the firm owner. To

Table 1
Descriptive statistics.

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Firm age	520	17.06538	15.71395	1	63
Firm manager gender	520	0.2288462	0.4204945	0	1
Bank manager age	520	36.36923	6.393504	23	55
Trust propensity	520	3.83E-09	1	−4.703842	1.543211
Bank size	520	0.4057692	0.4915131	0	1
Multiple products	520	0.6423077	0.4797824	0	1
Multiple banks	520	1.313462	1.385241	0	10
Relationship duration	520	3.167308	2.530905	0	24
Trust	520	−1.82E-09	1	−4.226342	2.328347
Special margin	520	0.75	0.4334297	0	1

Notes: Dependent variable: Dummy variable, 0 if the financing application obtaining special margin (below the market rate); otherwise, 1 (Normal margin). Independent variables: Benevolence and integrity (factor) score obtained from PCF (Trust). Controls: The age of the firm (Firm age), Dummy variable, 1 if the debtor is a female; otherwise, 0 (Firm manager gender), Age of the banker (Bank manager age), Trust propensity score of the bank manager (factor) obtained from PCF (Trust propensity), Dummy variable, 1 if the bank is a small (rural) bank; otherwise, 0 (Bank size), Dummy variable, 1 if the firm manager uses another product(s) from the bank; otherwise, 0 (Multiple products), the number of bank(s) from which the debtor has financing (Multiple banks), and the duration of the relationship between banks and firm manager (Relationship duration).

mitigate the bias in our model, we applied a IV-probit regression. The evaluation of a firm owner's trustworthiness is instrumented with three variables, namely, the firm owner's engagement in religious activities, community activities, and business association activities. Religious people might have high integrity (see Baele et al., 2014; Baele, Farooq, & Ongena, 2014). In the same vein, when firm owners are active in both social and business communities, it might show that they have high levels of benevolence/care toward other people.

4. Analysis

4.1. Descriptive statistics and factor analysis

Table 1 shows descriptive statistics in *murabaha* financing products in Islamic banks. The average age of the firm is 17 years. Female firm managers accounted for 23 percent of all firm managers. The average duration of relationships is 3.2 years. Firm managers seem to concentrate their borrowing at two to three banks. The average age of bank managers is 36 years. Small (rural) Islamic banks accounted for 41 percent of the observations. Interestingly, 25 percent of small business

managers obtained special margins from Islamic banks (below the market rate).

The model by Mayer et al. (1995) suggests that trust is also a function of a personal predisposition: some people are naturally more prone to trust others irrespective of perceived ability, benevolence, and integrity. To control for a personal predisposition to trust, we use three items asking bank managers to evaluate the following statements: “Most people can be counted on to do what they say they will do” (reverse scored), “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 eight items to measure the perceived trustworthiness of firm managers and EFA to reduce larger data into smaller sets of latent constructs. Table 2 lists the factor analysis results. We expect to have two factors of trustworthiness: institutionalization (integrity) and habitualization (benevolence). Empirically, both dimensions load into a single factor (trust), which is consistent with previous research that finds it very difficult to separate institutionalization (integrity) and habitualization (benevolence) into separate constructs (Colquitt, Scott, & LePine, 2007; Nooteboom et al., 1997). The Bartlett test of sphericity is significant ($p < 0.01$), with a Kaiser-Meyer-Olkin (KMO) score of 0.887. All the items show communalities between 0.3 and 0.68, which is acceptable (Costello & Osborne, 2005). The amount of variance explained by the factor is 51.09 percent, with a Cronbach alpha score of 0.86.

Regarding the correlation analysis (Table 3), firm managers seem to have advantages when they have higher trust. However, to explore the strength of the role trust has on the margins charged to firm managers, further analysis needs to be performed.

4.2. Regressions

Table 4 reports our basic estimation, that is, probit regression for *murabaha* with robustness checks, that is, IV-probit regression and regressions in subsamples. The regressions in the basic estimation and in the robustness checks are highly significant. The models do not present multicollinearity issues. Model 1 shows that trust is negative and significant at 1 percent level. Perceived benevolence (habitualization) together with perceived integrity (institutionalization) reduces the margins charged to small businesses: the higher the perceived benevolence/habitualization and integrity/institutionalization, the

Table 2
Trustworthiness factor.

The firm manager ...	Var.	Factor1	Uniqueness	Mean	Std. Dev.	Obs.
Is consistent in his/her words and behavior	INTEGRITY 1	0.8234	0.322	3.938462	0.6599334	520
Is completely honest with me	INTEGRITY 2	0.7657	0.4136	3.9	0.7433715	520
Tries hard to be fair in dealings with others (suppliers, buyers, partners, etc.)	INTEGRITY 3	0.7755	0.3986	3.969231	0.5543795	520
Will do the best to pay on schedule even in a short cash situation	BENEVOLENCE 1	0.7296	0.4676	4.028846	0.6339273	520
Really looks out for what is important to me or my bank	BENEVOLENCE 2	0.6715	0.5491	3.95	0.6156282	520
Would acknowledge their own mistakes	BENEVOLENCE 3	0.5689	0.6764	3.776923	0.6332518	520
Shares information in detail (based on data and fact)	BENEVOLENCE 4	0.7856	0.3829	3.946154	0.6721723	520
Shares sensitive or important information with me	BENEVOLENCE 5	0.5455	0.7024	3.613462	0.7388292	520

Table 3
Correlation.

	1	2	3	4	5	6	7	8	9	10
1 Special margin	1									
2 Firm age	−0.0440	1								
3 Firm manager Gender	0.0185	0.0248	1							
4 Bank manager age	−0.0118	0.116**	−0.0207	1						
5 Trust propensity	−0.0496	−0.00709	0.0258	0.0322	1					
6 Bank size	0.260***	−0.0441	0.0439	0.0479	−0.115**	1				
7 Multiple products	−0.0788	0.0312	−0.0137	0.0928*	−0.0118	−0.0452	1			
8 Multiple banks	−0.0489	−0.0128	−0.0870*	0.0583	−0.00828	0.212***	0.0502	1		
9 Relationship duration	−0.0233	0.155***	0.0490	0.0457	−0.142**	0.0677	0.184***	−0.0172	1	
10 Trust	−0.215***	0.0225	0.0326	0.0404	0.154***	−0.181***	0.201***	−0.162***	0.0641	1

Notes: Dependent variable: Dummy variable, 0 if the financing application obtaining special margin (below the market rate); otherwise, 1 (Normal margin). Independent variables: Benevolence and integrity (factor) score obtained from PCF (Trust). Controls: The age of the firm (Firm age), Dummy variable, 1 if the debtor is a female; otherwise, 0 (Firm manager gender), Age of the banker (Bank manager age), Trust propensity score of the bank manager (factor) obtained from PCF (Trust propensity), Dummy variable, 1 if the bank is a small (rural) bank; otherwise, 0 (Bank size), Dummy variable, 1 if the firm manager uses another product(s) from the bank; otherwise, 0 (Multiple products), the number of bank(s) from which the debtor has financing (Multiple banks), and the duration of the relationship between banks and firm manager (Relationship duration). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4
Basic estimation and robustness checks.

Variables	1 probitoverall	2 ivprobitoverall	3 Probit_long_murabaha	4 Probit_short_murabaha	5 Probit_small_islamic	6 Probit_large_islamic
Firm age	−0.00273 (0.00413)	−0.00279 (0.00412)	−0.00807 (0.00649)	0.00101 (0.00550)	−0.00651 (0.00784)	−0.000460 (0.00501)
Firm manager gender	0.0100 (0.153)	0.0114 (0.152)	−0.0827 (0.237)	0.0658 (0.205)	−0.164 (0.272)	0.0947 (0.186)
Bank manager age	−0.00130 (0.0105)	−0.00114 (0.0105)	0.00884 (0.0168)	−0.00533 (0.0139)	0.00713 (0.0186)	−0.00701 (0.0129)
Trust propensity	0.0168 (0.0629)	0.0247 (0.0649)	−0.0321 (0.0967)	0.0509 (0.0840)	0.127 (0.127)	−0.0220 (0.0742)
Bank size	0.827*** (0.147)	0.814*** (0.150)	0.639*** (0.216)	1.081*** (0.214)		
Multiple products	−0.0714 (0.139)	−0.0524 (0.145)	−0.188 (0.219)	−0.00914 (0.184)	0.197 (0.259)	−0.170 (0.167)
Multiple banks	−0.143*** (0.0464)	−0.149*** (0.0478)	−0.101 (0.0734)	−0.185*** (0.0620)	−0.124* (0.0701)	−0.182*** (0.0681)
Relationship duration	−0.0159 (0.0251)	−0.0150 (0.0252)	−0.0338 (0.0368)	0.00762 (0.0392)	−0.0294 (0.0371)	−0.00527 (0.0360)
Trust	−0.292*** (0.0712)	−0.344*** (0.128)	−0.298*** (0.115)	−0.293*** (0.0934)	−0.292** (0.141)	−0.284*** (0.0842)
Constant	0.813** (0.392)	0.804** (0.393)	0.613 (0.621)	0.815 (0.529)	1.307* (0.670)	1.042** (0.502)
Observations	520	520	209	311	211	309

Notes: Dependent variable: Dummy variable, 0 if the financing application obtaining special margin (below the market rate); otherwise, 1 (Normal margin). Independent variables: Benevolence and integrity (factor) score obtained from PCF (Trust). Controls: The age of the firm (Firm age), Dummy variable, 1 if the debtor is a female; otherwise, 0 (Firm manager gender), Age of the banker (Bank manager age), Trust propensity score of the bank manager (factor) obtained from PCF (Trust propensity), Dummy variable, 1 if the bank is a small (rural) bank; otherwise, 0 (Bank size), Dummy variable, 1 if the firm manager uses another product(s) from the bank; otherwise, 0 (Multiple products), the number of bank(s) from which the debtor has financing (Multiple banks), and the duration of the relationship between banks and firm manager (Relationship duration). Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

higher is Islamic bank managers' expectation that small business managers will not behave opportunistically during the financing relationship and, thus, the lower the markup charged to firms to cover the risk of misbehavior by firms.

Because our model might suffer from endogeneity issues, that is, omitted variable bias, we perform IV-probit regression incorporating three instrumental variables (IV; firm owner's engagement in religious activities, community activities, and business association activities) as shown in Model 2. Trust is negative and significant at the 1 percent level. The additional

results are very reassuring and enable us to argue that our evidence is robust to endogeneity issues: trust is negatively related to margins charged to the small businesses. It could be argued that the variables "firm owner's engagement in community activities" and "firm owner's engagement in business association activities" can be observed by the bank manager and consequently affect the dependent variable. In fact, even when the bank manager does not live near the location where the entrepreneur lives and works, they can detect the entrepreneur's involvement in local social activity via information

collected from other bank customers. Thus, we re-estimate our original model by including only one IV, that is, the firm owner's engagement in religious activities. Intriguingly and reassuringly, we obtain a qualitatively identical result: trust is negatively associated with margins ($p < 0.01$) and is significant (as reported in [Appendix Table 2](#)).

In fact, *murabaha* can be used to finance working capital (short term) and fixed assets (long term). This raises the question of whether the results are affected by the type of “goods” that are bought using *murabaha*. To explore this aspect, we re-estimate our regressions using different subsamples based on the type of *murabaha* and to the size of the bank. Models 3 and 4 report probit regressions based on two different types of *murabaha*. Reassuringly, our results show that the functional role of trust in reducing the margin between the different types of products bought via *murabaha* is consistent. In Models 3 and 4, trust is significant at 1 percent.

Past research shows that large and small banks tend to rely on different techniques in making financing decisions. Large banks exploit transaction lending technology because they rely on a more formal evaluation process linked to financial statements or past performance of the customer (i.e., credit scoring/credit rating). However, this approach implies reduced room for maneuver for the bank manager ([Stein, 2002](#)) and thus compromises the potential for exploiting relationship lending and personal ties. Small local banks are characterized by very short lines of command such that the bank manager who interacts with the customer has greater freedom when financing decisions are made. This implies that they are in a better position to exploit relationship lending, which allows them to differentiate their financing strategy vis-à-vis large banks ([Berger & Udell, 2002, 2006](#)). Past research on Western-style banks tends to support the fact that large and small banks rely on different lending strategies ([Berger & Udell, 2006](#); [Cole, Goldberg, & White, 2004](#); [Stein, 2002](#)). It can be interesting to investigate whether this is also the case in the context of Islamic finance and specifically in the case of *murabaha*.

To explore the role of trust and different lending techniques in the context of Islamic finance, we estimate Models 5 and 6 ([Table 4](#)).

The tables report probit regressions for the two different types of banks, large and small Islamic banks. Intriguingly, the relevant role of trust as a factor that reduces the margins charged by the bank on *murabaha* can be found in both large and small Islamic banks: both small and large banks rely on trust to support financing decisions for small businesses. This is not a surprise given that small businesses have a limited credit history and lack publicly available information to support financing decisions. However, it is a little surprising that trust also plays a role for larger banks that are expected to rely more on formal information.

As far as controls are concerned, the multiple use of products by small business managers has the expected sign, but it is not significant, suggesting that after trust is established, bank managers do not need to obtain additional information about the use of multiple products by small business managers. In addition, when trust plays an important role in the relationship,

the duration of the relationship does not affect financing decisions. This suggests that, when the relationship between small business managers and bank managers exploits trust, even if it is relatively young, small business managers may benefit from the relationship via lower fees, irrespective of the bank type. Surprisingly, the multiple-bank relationship has an unexpected sign. One possible explanation is that Islamic banks try to attract applicants by offering lower margins so that they can be the main financial institutions that provide financing for small businesses. In fact, being the major (or the unique) financing partner of a firm puts the provider of finance in a strong position because it will be able to access a lot of additional information that other banks cannot access. This, in turn, can lock the firm into a relationship with the bank ([Howorth & Moro, 2006](#)).

5. Discussion

Monitoring activity is a very important aspect of small business lending because it enables mitigation of issues linked to information asymmetry and moral hazard. At the same time, it is very expensive ([Stiglitz & Weiss, 1981](#)). Thus, any tool that allows a reduction of monitoring is very much welcomed by the financial community. Intriguingly, past research on trust and small business bank lending suggests that trust can play an important role in reducing monitoring and contract enforcement efforts and the related costs ([Bromiley & Cummings, 1995](#); [Chiles & McMackin, 1996](#); [Howorth & Moro, 2006](#)). However, prior works are focused exclusively on Western-style finance, and the question arises: what about Islamic finance?

Our work addresses this question by exploring the impact of trust on the fees charged by Islamic banks on *murabaha*. Our findings show that trust has an important role in reducing interest rates (“margin” at Islamic banks). More important, our evidence suggests that past results obtained about Western-style finance can be extended to the context of Islamic banks and to emerging countries such as Indonesia. In fact, Islamic banks operate according to Islamic rules and regulations. Those regulations are grounded in Islamic teaching that encourages Muslims to behave in accordance with strong values, principles, and norms based on the Quran and Sunna, the two most important sources of law in Islam. Because of the characteristics of the financial products (e.g., the fact that they cannot charge interest and that the “borrower” has to use the funds according to Islamic regulations), Islamic banks' managers are interested in the values and principles, especially benevolence and integrity, which small business managers bring into the relationship. Such values, in turn, can have an important effect on trust.

More specifically, bank managers' perception of the integrity and benevolence of small business managers reduces the perceived risk related to moral hazard, for example, opportunistic behavior ([Das & Teng, 2001](#); [Moro & Fink, 2013](#)). In fact, similarly to conventional banks, Islamic banks face credit risk, for instance: (1) the possibility that small business managers will not pay back the loan obtained; (2) the possibility that small business managers will use the funds in a way that

differs from the original purpose, possibly by diverting funds to projects that are higher risk; and (3) the possibility that small business managers might intentionally default on payments (become late payers). In fact, the last aspect is very relevant for Islamic banks because it can trap banks in low-yield situations because banks are not allowed to charge extra fees for later payment. Interestingly, our findings confirm that trust also plays an important role in an Islamic setting and for different type of Islamic financial products (different types of *murabaha*). In fact, in the case of short-term *murabaha*, small business managers may act opportunistically, for instance, by “side-streaming” (accepting a high-risk project with the expectation of obtaining higher returns). In this case, high levels of trust (integrity and benevolence) increase bank managers' expectation that small business managers will use the financing in line with its original purpose or, at least, in a way that will not be detrimental to the bank. In the case of long-term *murabaha*, Islamic banks face even a greater risk. Over and above the risk of dealing with a firm whose manager diverts the funds to a higher-risk project, Islamic banks also may incur the problem of customer default. Because they cannot change the margin agreed in advance, and they cannot demand extra fees when there is an implicit extension of the financing period due to customer default, they can be trapped in a low-yield situation. In addition, in the case of *murabaha* financing schemes used to buy assets, banks face the risk of losing control of the assets. In fact, small business managers might sell the assets even if they have not completely repaid them. This implies an additional risk (moral hazard) linked to the fact that small business managers can be tempted to compromise firms' long-term performance (and the ability to repay the funding received) to obtain an immediate short-term benefit (extra money linked to the sale of the assets). All in all, banks face a real challenge that requires a proper assessment of customers' values and beliefs.

In fact, by assessing customers' values and beliefs, banks are implicitly determining the level of trust in the customer. Then, banks may exploit trust to discriminate those small business managers that are expected to behave properly (i.e., those that repay the funding regularly even if they find themselves in difficult situations) from those that are perceived as not reliable (i.e., those that may behave in a way that is detrimental to the bank) and price the financing provided accordingly.

Trust is defined as a psychological statement that is different from control (Das & Teng, 2001). In the context of control, an actor needs to take actions to control the counterpart, but this commits resources (time, energy, and money). This is not needed in the case of trust. Perceived trustworthiness can reduce the expectation of opportunistic behavior by small business managers (Moro & Fink, 2013) by reducing banks managers' monitoring activities and contract enforcement efforts. In the context of Islamic financing products, given the additional risks incurred by the provider of funds (namely, markup risk and the risk that assets can be sold without asking for permission from the bank) as well as the additional costs incurred (control of the proper use of funds given to the firm—that is, the fact that the funds are used according to

sharia law), trust can be of greater importance because it allows reduction in the use of expensive monitoring tools and can offer special margins to trustworthy small business managers.

6. Conclusion

Past research on trust and bank financing suggests that trust can reduce interest rates charged to small business firms in the context of conventional bank lending (Howorth & Moro, 2012). In fact, so far research has been focused only on Western-style finance. Our work documents that trust has a functional role in the most popular Islamic financing products, that is, *murabaha*. We find that high levels of trust are associated with a reduction in the margins that Islamic banks charge small businesses. Intriguingly (and partially at variance with past research that explores the different lending techniques between small and large banks), our results do not vary across large and small banks. Moreover, our results do not change when we look at *murabaha* for financing working capital (i.e., short-term finance) and fixed asset/equipment (long-term finance). Overall, our results support the view that soft information and trust that builds on it play a very important role in small business financing in the Islamic finance setting.

To the best of our knowledge, our work is the first study that explores the role of trust in Islamic bank financing by focusing on a specific financing product. Thus, our findings add to the growing body of literature on trust and bank lending (Harhoff & Körting, 1998; Hernández-Cánovas & Martínez-Solano, 2010; Hirsch et al., 2018; Howorth & Moro, 2006, 2012; Kautonen et al., 2020; Lehmann & Neuberger, 2001; Moro & Fink, 2013; Palazuelos et al., 2018) in two ways. First, our evidence enables further generalization of past results by suggesting that trust plays an important role not only in Western-style financing. Second, we show that trust is important for both short- and long-term finance and that small and large banks in the Islamic context both exploit trust. The latter evidence is partially at variance with past results.

Moreover, our results are relevant for banks, firms, and regulators. Our results with regard to banks stress the importance of setting up an organizational structure that allows banks to exploit trust. This implies that banks should leave bank managers some room for maneuver because trust builds on soft information that can be accessed by branch managers but is not easily transferred to the next layer in the chain of command. With respect to firms, our results suggest that small business managers should behave in a way that nurtures trust. This implies that being transparent with bank managers, sharing all the relevant information with them, and being clear about how funds will be used pays off in terms of a lower cost for the funds secured. Finally, our results are relevant for regulators because they suggest that an approach to assessing the risk of the “borrower” using only hard data does not necessarily work. Needless to say, finding a way to incorporate the level of trust (and soft information in general) in risk assessment is a challenge. At the same time, dismissing such an important factor can compromise a proper assessment of the level of risk in the financing activity of Islamic banks.

Our research has some limitations. The first relates to the context. Even if we consider Indonesia an interesting setting for performing this research because of its large Muslim population and mixed banking system, our results cannot simply be generalized. Further research that explores the same topic in different countries could be useful because it would give us a clearer idea about the level of generalization of our results. Second, we focus on one financial product. Even though *murabaha* is the most popular financial product in the Islamic world, this does not mean that trust plays the same role for other financing products. Thus it could be interesting to explore the role of trust in other Islamic financing products. Third, our work is eminently cross sectional. It could be interesting to explore how trust might evolve (increase and decrease) based on the actions and behavior of different players (banks and small firm managers). Fourth, future studies should take into account whether Islamic bank managers play an additional role by assisting small business managers in using the assets obtained through *murabaha* for generating revenue. Finally, useful insights could be obtained in future research by

comparing the role of trust in Islamic versus Western banks, as Western banks may have different characteristics in terms of pricing and the strategies used to evaluate borrowers' creditworthiness and trustworthiness.

Despite these limitations, our study, by examining the role of trust in the Islamic banking relationship, yields a more fine-grained understanding of the important role of personal and trustworthy relationships in a context that thus far has been under investigated: Islamic finance.

Declaration of competing interest

The authors have no conflicts of interest to declare that are relevant to the content of this article.

Appendix.

Appendix Table 1

Remedies undertaken against common method bias (based on Podsakoff et al., 2012).

Remedy and rationale	Implementation
<i>Procedural Remedy</i>	
Protect respondent anonymity	Respondents do not need to mention their name, their bank's name, and their financing applicant's name in our survey.
Reduce item ambiguity	We conducted a field test with bank officers to identify ambiguous instructions and questions as well as sensitive questions. We adjusted several questions and instructions and deleted one question related to an applicant's delinquency in the past as it was too sensitive.
Obtain measures of independent variables and dependent variables from different sources	Although one person should respond to both independent variables and dependent variables, the dependent variables do not involve feelings, perceptions, or beliefs. We also performed additional regressions using different subsamples.
Proximal separation between independent variables and dependent variables	The questions related to the evaluation of firm managers' trustworthiness (main independent variable) are separate from the dependent variable questions.
<i>Statistical Remedy</i>	
Harman's one-factor test	When all the value-based trust items are entered together in the unrotated principal-component factor (PCF) analysis, they only form a single factor. This single factor accounted for the majority of the variance (>50%).
Instrumental variable technique	As our data did not pass 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 using three instrumental variables, i.e., a firm manager is actively engaged in religious activities, community activities, and = business association activities. The instrumental variable value-based trust is negative and significant (at the 1% level).

Appendix Table 2

IV probit regression using the firm owner's engagement in religious activities as an instrumental variable

Variables	IV probit regression
Trust	−0.452*** (0.156)
Firm age	−0.00280 (0.00410)
Firm manager gender	0.0141 (0.151)
Bank manager age	−0.000878 (0.0104)
Trust propensity	0.0414 (0.0662)
Bank size	0.774*** (0.157)
Multiple products	−0.00879 (0.150)
Multiple banks	−0.159*** (0.0475)
Relationship duration	−0.0128 (0.0251)
Constant	0.780** (0.392)
Observations	520

Notes: Dependent variable: Dummy variable, 0 if the financing application obtaining special margin (below the market rate); otherwise, 1 (Normal margin). Independent variables: Benevolence and integrity (factor) score obtained from PCF (Trust). Controls: The age of the firm (Firm age), Dummy variable, 1 if the debtor is a female; otherwise, 0 (Firm manager gender), Age of the banker (Bank manager age), Trust propensity score of the bank manager (factor) obtained from PCF (Trust propensity), Dummy variable, 1 if the bank is a small (rural) bank; otherwise, 0 (Bank size), Dummy variable, 1 if the firm manager uses another product(s) from the bank; otherwise, 0 (Multiple products), the number of bank(s) from which the debtor has financing (Multiple banks), and the duration of the relationship between banks and firm manager (Relationship duration). Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

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