A Promise in the Name of God*

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Abstract

How do sellers signal product quality in weak contractual environments? Using hundreds of audio-recorded trade negotiations in Afghanistan, we document that sellers often invoke God to reassure buyers, particularly when product quality is difficult to verify and when they lack a fixed selling location, limiting reliance on reputation. We argue that these divine invocations function as a signaling device, as making a false claim under them is believed to entail cosmic costs. Evidence from field experiments matches detailed predictions of a signaling model. Our findings indicate that religious beliefs can be actively employed to strengthen the credibility of verbal commitments.

JEL codes: D8, L14, Z12

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"You shall not take the name of the Lord your God in vain, for the Lord will not hold him guiltless who takes his name in vain." (Exodus 20:7)

1 Introduction

A longstanding question in economics is how transacting parties can credibly signal their quality under asymmetric information (Akerlof, 1970; Spence, 1973; Crawford and Sobel, 1982; Riley, 2001). This problem is particularly acute in countries with weak institutions, where contractual arrangements are largely ineffective as signaling devices. For example, warranties may fail to enable high-type sellers—those offering high-quality goods—to separate themselves from low-type sellers when consumers face prohibitively high costs of contract enforcement (Spence, 1977; Grossman, 1981; Lutz, 1989).[1] The existing literature identifies reputation building through repeated interactions as a substitute for formal contracting (e.g., Greif, 1993; McMillan and Woodruff, 1999; Macchiavello and Morjaria, 2015). However, reputation has its limits; it is less effective, for example, in environments where repeated transactions are unanticipated or where reputation-building is slow (Bai, 2025).

This paper studies a distinct, non-contractual mechanism that can serve a comparable function even when reputation is ineffective: verbal commitments. Prior work has emphasized the potential role of promising beyond "cheap talk," based on the idea that making a false verbal claim can impose non-material costs on the party sending the signal.[2] For example, senders may feel guilty about disappointing others (Charness and Dufwenberg, 2006)

[1] Other examples of contractual arrangements that can serve as signals of product quality include franchising (Kreps and Wilson, 1982; Gallini and Lutz, 1992; Lafontaine, 1993), advertising (Nelson, 1974; Klein and Leffler, 1981; Kihlstrom and Riordan, 1984; Milgrom and Roberts, 1986; Ackerberg, 2003), licensing (Gallini and Wright, 1990; Beggs, 1992), pricing (Gerstner, 1985; Stiglitz, 1989; Bagwell and Riordan, 1991), branding (Wernerfelt, 1988; Erdem and Swait, 2001), and voluntary disclosure of private information (Lewis, 2011).

[2] The absence of material cost distinguishes this signaling device from its conventional counterparts, which typically rely on costly investments. For example, recent work by Bai (2025) shows that the material cost of signaling technologies can deter firms from adopting them, despite their effectiveness as signaling devices. Combined with consumer mistrust and slow learning, limited access to such technologies can discourage sellers from supplying high-quality goods in the first place, causing markets to become trapped in a low-quality equilibrium.

or incur psychological costs from lying (Gneezy, 2005; Hurkens and Kartik, 2009; Kartik, 2009).[3] However, a central issue is that such intrinsic costs are typically private information and therefore unverifiable. As a result, even when senders face high intrinsic costs of lying that induce truthfulness, they may be unable to credibly convey this information to receivers, limiting the effectiveness of promises in fostering trust.

We argue that in environments with shared religious beliefs, senders can address this verifiability issue by invoking a divine witness, which we refer to as *a promise in the name of God*. In many religious traditions, making a false claim while invoking God is considered a sin and is believed to incur severe cosmic costs.[4] Such a promise therefore allows a sender to actively and publicly opt in to a high-cost regime for lying. Unlike private psychological costs, these divine invocations are observable to receivers; therefore, the perceived cosmic costs associated with these oaths can serve as a credible signal of commitment. While related ideas have been noted in biology (Zahavi, 1975, 1977), anthropology and social psychology (Rappaport, 1999; Norenzayan, 2013), and economics (Carr and Landa, 1983; Berman, 2000; Sosis, 2003; Li and Zhu, 2021), our contribution is to provide systematic empirical evidence of this mechanism in economic transactions.[5]

To examine this idea, we study sellers in Afghanistan as our empirical context. This setting is well-suited for several reasons. First, Islamic beliefs—under which lying while invoking God is considered a sin—are nearly universal, with over 99 percent of the population identifying as Muslim.[6] Second, the country's weak economic institutions render conventional contractual solutions largely ineffective; for example, in 2023, Afghanistan ranked in the 5.2nd percentile globally for Rule of Law.[7] Moreover, many sellers lack a fixed location,

[3] See also Abeler et al. (2019) and references therein.

[4] In both Judaism and Christianity, the commandment "You shall not take the name of the Lord your God in vain, for the Lord will not hold him guiltless who takes His name in vain" (Exodus 20:7) is among the Ten Commandments. Similarly, in Islam, the Qur'an states: "Indeed, those who trade Allah's covenant and their oaths for a fleeting gain will have no share in the Hereafter. Allah will neither speak to them, nor look at them, nor purify them on the Day of Judgment. And they will suffer a painful punishment" (Qur'an 3:77).

[5] For a review of the costly signaling theory of religion, see Northover et al. (2024).

[6] Religious Composition by Country, 2010–2020, *Pew Research Center*, June 2025.

[7] Worldwide Governance Indicators, *World Bank*, 2024.

instead using handcarts and moving between marketplaces, which limits their ability to rely on reputation as a commitment device. The need for alternative mechanisms to address information asymmetries is therefore particularly strong. Exploiting this setting, we investigate the prevalence, informativeness, and effectiveness of promises made in the name of God.

We begin our analysis by examining the prevalence of religious oaths made by sellers during trade negotiations with customers, using hundreds of real-world interactions that took place in marketplaces across Kabul, the capital of Afghanistan. We collected these data by recruiting local research assistants to visit marketplaces, interact with sellers, and audio-record their negotiations.[8] These recordings were subsequently transcribed. The final dataset comprises negotiations between our research assistants and approximately 360 sellers across 36 neighborhoods in Kabul, yielding more than one thousand seller–item-level trade negotiations.

We find that sellers invoke a divine witness in approximately 10 to 13 percent of negotiations, depending on the measure used. We then examine how seller and item characteristics correlate with the likelihood of such invocations. Within the same neighborhood, mobile sellers—those operating handcarts without a fixed location—are significantly more likely to make a promise in the name of God during negotiations. In addition, we find that sellers are less likely to invoke a divine witness when selling items that are either factory-packaged or edible in their raw form. These patterns suggest that sellers are more likely to resort to religious oaths when they lack alternative mechanisms to signal or commit to high product quality, such as operating from a fixed location that facilitates repeated transactions, offering factory-labeled products, or selling goods whose quality can be directly assessed through consumption (e.g., offering a sample of raw peanuts).

To explain these patterns, we present a simple signaling model of promising in the name of God. In this framework, high-type sellers want to signal the quality of their product,

[8]For details on data collection, see Section A3.

while low-type sellers have incentives to mimic the high type. The trade-off faced by low-type sellers is between the benefit of being perceived as high type and the cosmic cost of lying after invoking God. In equilibrium, the frequency and informativeness of promising in the name of God depend on how many low-type sellers mimic the high type. Such promises may be observed more often when low types find them more useful ex ante. As a result, these promises become less informative about product quality ex post. We test these predictions using two field experiments described below.

Promises made in the name of God may, instead of serving as a signaling mechanism, function as a form of identity signaling aimed at appealing to consumers who share similar religious or cultural values (e.g., Berger and Heath, 2007; Berger, 2008; Fisman et al., 2017). To distinguish between these mechanisms, we conduct a within-seller analysis exploiting variation across items in the extent to which their quality is difficult to assess prior to consumption. To measure this variation, we administered a consumer survey in Kabul that included all items referenced in the audio recordings. Respondents were asked to classify each item based on the difficulty of evaluating its quality before consumption or use, with response options of "hard," "neutral," or "easy."[9]

Using the survey results, we construct an average opacity score for each item, weighting responses by the corresponding number of observations. If religious oaths signal unobservable quality, they should be used more frequently for items with greater quality opacity. Consistent with this prediction, we find that such oaths are more likely to occur in trade negotiations between a given seller and the research assistant when the product has a higher opacity score. This within-seller variation cannot be explained by the view that sellers use religious oaths merely to appeal to religious consumers.

A key prediction from signaling theory is that items sold in the name of God—that is, instances in which the seller made a religious oath during the sales negotiation—are of higher quality. To test this prediction, we conducted a double-blind taste experiment. We purchased

[9]For further details on the survey design and implementation, see Section A4.

11 commonly consumed, non-perishable food items from various sellers, yielding 656 item–seller observations. For each transaction, we recorded the purchase price, several seller characteristics, and whether a divine witness was invoked.[10] Participants were randomly assigned to rooms, each containing a randomly selected subset of the purchased items, and were asked to rate the taste of each item on a scale from 1 to 5. Each item was labeled with a numerical code, and neither the participants nor the organizers knew the purpose of the study or which items had been sold with a promise in the name of God, thereby preserving the double-blind nature of the experiment.

We find that items sold in the name of God are, on average, of significantly higher quality, as reflected in higher taste scores. However, the association between religious oaths and taste scores is notably weaker for mobile sellers, suggesting that such promises are less informative about product quality when made by sellers without a fixed location. This finding is consistent with signaling theory, which predicts that a signal is more informative ex post when it is used less frequently by low-type sellers ex ante. As previously documented, mobile sellers invoke God more often than those with a physical storefront; if this reflects greater mimicry by low-type sellers, the informational content of such oaths should be correspondingly reduced.

Another key prediction from signaling theory is that a promise in the name of God should affect beliefs about product quality held by receivers (buyers in our context). To test this prediction, we conducted a field experiment to assess the effectiveness of religious oaths made by sellers during sales negotiations on sales outcomes. To this end, we recruited 26 professional sellers with prior experience operating mobile handcarts to sell items on the streets. Each seller was assigned to sell five commonly available, non-perishable food items: black tea, candy, pasta, dried dates, and turmeric. These products were selected for their durability and familiarity to local consumers. Each item was offered in one of two formats: factory-packaged or loose, with the latter stored in food-grade containers.

Each seller participated for 36 days, conducting two selling sessions per day—morning

[10]The items were selected in consultation with local experts to reflect durable goods familiar to Afghan consumers. For further details, see Section A5.

and afternoon. Each seller-day (i.e., one morning and one afternoon session) was randomly assigned a single product format—either all factory-packaged or all loose. Format assignment was conducted at the seller-day level rather than the session level to ensure logistical feasibility. Neighborhoods were randomly selected from a pre-compiled list of areas in Kabul where mobile sellers are commonly found (Table A4). Each day, sellers positioned their carts at a location of their choosing within the assigned neighborhood and relocated to a nearby street of their choice for the afternoon session.

We implemented two randomized interventions at the seller-day-session level. The first involved instructing sellers to refrain from using religious oaths during customer interactions in that session. The second involved placing a poster on the street where the seller was located during the session. The poster featured a verse from the Qur'an intended to remind passersby that God holds individuals accountable for the oaths they make.[11] These two interventions generated a two-by-two design, resulting in four treatment arms.

All goods were provided to sellers free of charge in their assigned format. Prices were centrally set at the median of at least five price quotes from local stores, stratified by format, to reflect prevailing market conditions. Sellers did not retain any revenue. Instead, they received a fixed monthly salary of AFN 10,000 (approximately USD 140), irrespective of sales performance. In addition, they earned a five percent commission on their total sales to incentivize effort. Each seller participated for 36 days, with two sessions per day and five items per session, yielding a total of 9,360 seller–session–item observations.

Our findings show that instructing sellers to refrain from making religious oaths during trade negotiations leads to a significant reduction in sales volume. In sessions where the poster is not displayed, sales revenue declines by 5.4 percent when sellers are asked not to make religious oaths. Consistent with the interpretation that such oaths serve as a signal of product quality, we find that the decline in sales is significantly larger—by an additional 9.0 percent—in sessions where the poster is displayed. In other words, in sessions where the

[11] For details on the experimental design, see Section A6.

poster is present, instructing sellers to refrain from making religious oaths results in a 14.2 percent decline in sales revenue. This pattern suggests that the positive effect of religious oaths on sales outcomes is amplified when potential customers are reminded of the cosmic consequences sellers may face for breaking such oaths, further reinforcing the interpretation that these oaths function as signals of product quality. This interaction also helps address alternative explanations for the effects of the seller instruction.

Overall, our findings indicate that promises in the name of God can operate as a signaling device, in the sense of Spence (1973), allowing sellers offering high-quality items to separate themselves from those offering low-quality items under asymmetric information. These results highlight how religious beliefs can be actively employed to strengthen the credibility of verbal commitments.

Our paper contributes to the literature investigating how market participants address information asymmetries to facilitate exchange. Existing research has emphasized two broad approaches. One strand highlights contractual solutions—such as warranties, franchising, and licensing—as mechanisms to address this problem (Grossman, 1981; Lafontaine, 1993; Gallini and Wright, 1990). Another focuses on non-contractual mechanisms, most notably reputation, which can be particularly important in developing countries with weak contracting institutions (e.g., Greif, 1993; McMillan and Woodruff, 1999; Macchiavello and Morjaria, 2015). Within this line of work, Belenzon et al. (2017) show that eponymy, that is, naming firms after their owners, functions as a signal of entrepreneurial quality by increasing the reputational costs of poor performance.

We add to this literature by demonstrating that verbal commitments—particularly those invoking a divine witness—can serve as a signaling device of product quality and, at least in part, substitute for formal institutions. Unlike reputation, this mechanism can foster trust even in one-shot or anonymous transactions, highlighting a novel channel for addressing information frictions when institutional and reputational solutions are limited. Importantly, such verbal commitments can serve as credible signals while imposing no material costs.

As shown in Bai (2025), the material costs of signaling technologies can deter firms from adopting them despite their effectiveness; when combined with consumer mistrust and slow learning, this can trap markets in a low-quality equilibrium. Our mechanism can help sellers address this issue even when they lack the financial resources to adopt costly signaling technologies.

The second contribution of our paper is to the literature on promises. Prior work using experimental games documents individuals' preferences for keeping their promises to avoid incurring psychological costs, such as guilt (e.g., Charness and Dufwenberg, 2006; Vanberg, 2008; Abeler et al., 2019). While these intrinsic costs of lying suggest that promises may serve as a signaling device, a key practical challenge is that these costs are private and therefore unobservable to receivers. Through our field experiments, we illustrate how individuals actively employ religious beliefs to address this verifiability problem in practice, rendering their costs of lying observable and thereby enhancing the credibility of their promises.

Our paper also broadens the literature on the role of religion in fostering trust. Much of this literature emphasizes religion as a personal attribute shaping economic behavior (Iannaccone, 1998; Iyer, 2016; Becker et al., 2021). Within this strand, prior research shows that religiosity increases the intrinsic cost of misbehavior and thereby fosters trust (Guiso et al., 2003; Tan and Vogel, 2008), but it rarely considers religion as a strategically employed mechanism. A notable exception is Bursztyn et al. (2019), who show that uninformed parties can strategically leverage religious belief to mitigate informed parties' moral hazard ex post. In contrast, we show that informed parties can invoke shared religious belief to address uninformed parties' concerns about adverse selection ex ante.[12] Our findings thus highlight that religion is not only a passive trait but also an actively deployed mechanism for overcoming fundamental frictions in economic exchange.

[12]It is not obvious whether a moral appeal that disciplines moral hazard ex post would also function as a signaling device ex ante. Because intrinsic moral costs are private and unverifiable, even an informed sender with high moral costs may find it difficult to credibly convey this information to uninformed receivers.

2 Motivating Patterns: Audio Recordings of Negotiations

To motivate our analysis of promises made in the name of God, we first conduct a field study in Kabul to document the prevalence of this practice in everyday trade negotiations. We hired local research assistants and instructed them to visit retail marketplaces and audio-record their conversations with sellers while negotiating over various items for sale.

Afghanistan provides an ideal setting for our study, as previously mentioned. First, weak economic institutions undermine conventional contractual solutions—such as warranties—that would allow high-type sellers to separate themselves from the low type.[13] Since contract enforcement is very costly and uncertain, consumers are unlikely to pursue formal remedies. As a result, low-type sellers face almost no penalty for offering commitments they do not intend to honor, reducing such contracts to cheap talk.

A second feature of this environment is that a substantial share of sellers operate from mobile handcarts rather than fixed storefronts. This mode of selling weakens the scope for reputation formation: interactions with customers are brief, repeat business is limited, and sellers can easily relocate. Finally, Afghanistan's population is overwhelmingly Muslim,[14] and Islamic teachings emphasize the cosmic cost of lying—especially when invoking God as a witness. This shared belief system creates a context in which invoking a divine witness can function as a signaling device.

Our research assistants recorded negotiations with 359 sellers across 36 neighborhoods in Kabul. Each recording may contain negotiations over multiple items sold by the same seller, and we treat each item as a separate observation. This yields 1,081 seller–item-level observations covering 147 distinct items. A detailed account of the data collection process is provided in Appendix A3. We then identify negotiations in which sellers make promises

[13] According to the World Bank's 2023 governance indicators, Afghanistan ranked in the 5.2nd percentile globally for Rule of Law, the 1.4th percentile for Government Effectiveness, and the 9.4th percentile for Regulatory Quality. For further details, see the Worldwide Governance Indicators.

[14] Religious Composition by Country, 2010–2020, *Pew Research Center*, June 2025.

in the name of God. Three research assistants independently reviewed the transcripts and flagged such promises, producing three separate indicators—*RA 1*, *RA 2*, and *RA 3*—of *Promises in the Name of God*. The high correlations among these measures indicate a strong degree of agreement (Table 1, Panel (a)).

For example, in one case where all our RAs indicated that the negotiation involved a promise in the name of God, a mobile seller in the Deh Afghanan neighborhood of Kabul was asked whether the quality of cumin was good. The seller replied:

> "It's good, I swear to God." (فروشنده: خوبیش است بخدا)

In another case, when a seller with a fixed location at Tank-e-Til Station in Dasht-e-Barchi, Kabul, was asked about the quality of dates, the seller responded:

> "Absolutely, I guarantee it for you. I swear on the Quran, I took some home for myself today." (فروشنده: بیخی مه ضمانتی میتم تو ره، مه امروز به قرآن برا خودوم از همینا بردم)

Table 1 presents summary statistics for the audio recordings of negotiations. Panel (b) reports the unconditional means and standard deviations. First, sellers invoke God in 10 to 13 percent of negotiations, depending on the measure used. Second, 13 percent of sellers are mobile, operating without a fixed location. While mobile sellers exist worldwide, they are more prevalent in developing countries, particularly in urban areas (Bromley, 2000). Third, 66 percent of items are sold in packaged form, with the remaining 34 percent sold in loose form (e.g., bulk goods sold by weight or quantity). Fourth, 88 percent of items are food, but only 15 percent are edible raw.

Panel (c) compares fixed-location and mobile sellers, motivated by extensive literature showing that, in weak legal systems, repeated transactions and reputations help enforce contracts (e.g., Klein and Leffler, 1981; Greif, 1993; McMillan and Woodruff, 1999; Brown et al., 2004; Macchiavello and Morjaria, 2015). Unlike fixed-location sellers, mobile sellers may face greater challenges in building reputations, increasing their reliance on alternative commitment devices such as promises made in the name of God.

We find that mobile sellers are significantly more likely to invoke God. They are also more likely to sell items in loose form, which may require stronger quality signals than standardized, factory-packaged goods. While there is no significant difference between seller types in the proportion of food items sold, mobile sellers are more likely to offer items that are edible raw. The ability to provide a sample of such goods may help verify the signaled quality, partially substituting for promises made in the name of God.

Next, we analyze the relationship between seller and item characteristics and the frequency of invoking God using the following regression model:

$$\text{Promise in the Name of God}_{ij} = X_{ij}\Gamma + \varepsilon_{ij} \tag{1}$$

where the dependent variable, Promise in the Name of God_{ij}, equals one if all three research assistants indicate that seller i invoked God during the negotiation for item j, and zero otherwise. To focus on within-neighborhood variation, all regressions include neighborhood fixed effects. The coefficient of interest, β, measures whether promises in the name of God are more frequent when the seller operates from a fixed location rather than as a mobile seller, when the item is factory-packaged rather than sold in loose form, or when the item is edible raw, depending on the specification. Our statistical inference is based on standard errors clustered at the neighborhood level.

Table 2 presents the results. Column (1) shows that, within the same neighborhood, mobile sellers are 10.7 percentage points more likely to invoke God than fixed-location sellers, who do so in only 8.2 percent of negotiations. This result is consistent with the univariate findings in Table 1 while mitigating concerns about potential cultural or religious differences across neighborhoods.

In column (2) of Table 2, we estimate the association between the frequency of invoking God and indicators for whether items are packaged, edible raw, and their interaction. Relative to cases where items are sold in loose form and are not edible raw, sellers are less likely

to make promises in the name of God when selling items that are either packaged or edible raw. However, the interaction term shows that these effects are attenuated when items are both packaged and edible raw.

In our sample, mobile sellers are more likely to sell items in loose form, particularly those that are edible raw. Although these are endogenous choices by sellers, we test whether mobile sellers remain more likely to invoke God after controlling for these item characteristics. In column (3), we add the mobile-seller indicator to the specification in column (2). The results indicate that mobile sellers remain significantly more likely to invoke God, even after controlling for item characteristics, with an estimated difference of 9.3 percentage points, similar to the estimate in column (1). Overall, these findings suggest that sellers are more likely to make promises in the name of God when they lack alternative means of signaling or committing to high product quality, such as operating from a fixed location for repeated transactions, offering factory-provided labels on packaging, or selling items whose quality can be easily verified through edibility.

We posit that promises made in the name of God function as a mechanism for signaling product quality. However, alternative explanations could also account for our findings. In particular, sellers may use such promises as a form of identity signaling aimed at appealing to consumers who share their religious or cultural norms and values (e.g., Berger and Heath, 2007; Berger, 2008; Fisman et al., 2017). To distinguish between these mechanisms, we conduct a within-seller analysis across items that vary in the difficulty of evaluating their quality before consumption. If religious promises operate as signals of unobservable quality, they should be used more frequently for items with higher quality opacity. In contrast, if such promises primarily serve identity-based persuasion, there is no clear reason to expect their usage to be concentrated among more opaque products.

To implement this within-seller analysis, we conducted a consumer survey in Kabul covering 146 items mentioned in the audio recordings. Respondents assessed how difficult it is to evaluate the quality of each item before consumption or use, choosing among three

categories: hard, neutral, and easy. We assign scores of 3, 2, and 1 to these categories, respectively, and compute an average opacity score (*Opacity Index*) for each item, weighting responses by the number of responses. The full procedure is detailed in Appendix A4.

Table 3 presents the results from estimating the following regression model:

$$\text{Promise in the Name of God}_{ij} = \beta \cdot \text{Opacity Index}_j + \mu_i + \varepsilon_{ij} \tag{2}$$

where the variable Opacity Index$_j$ captures the quality opacity of item j, and μ_i denotes seller fixed effects, allowing us to compare the likelihood of invoking God within the same seller. In this within-seller analysis, our statistical inference is based on standard errors clustered at the seller level.

In column (1), we use the *Opacity Index* as the main explanatory variable, while column (2) uses *High Opacity*, a binary indicator equal to one if an item's *Opacity Index* is above the median value across all items. We find that sellers are more likely to promise in the name of God when selling products with higher quality opacity. This result cannot be explained by the view that attracting religious consumers is the motive behind the practice; rather, it supports the interpretation that sellers use invocations of a divine witness as a signal of unobservable product quality.

In Table A1, we revisit the results from Tables 2 and 3 using indicators of promising in the name of God coded separately by RA 1, RA 2, and RA 3, and find that the results remain robust.

3 Theoretical Framework

The previous section shows that sellers in Afghanistan occasionally promise high quality in the name of God. Such promises are particularly more frequent when sellers lack fixed locations and when they sell products with more opaque quality. In this section, we develop a simple framework to rationalize these patterns. We argue that invoking God serves as a

costly signaling mechanism that enables high-type sellers to, at least partially, distinguish themselves from low-type sellers offering lower-quality goods. We discuss how promises made in the name of God differ from promises involving intrinsic costs of lying in prior work (e.g., Charness and Dufwenberg, 2006; Kartik, 2009; Abeler et al., 2019). The framework also yields additional testable predictions that help distinguish this mechanism from alternative explanations.

Set-up In our signaling model, the sender is a seller (S) with type $\theta \in \{H, L\}$. The seller privately knows her type, and receivers (customers) share a common prior $\mu_0 \equiv \Pr(\theta = H) \in (0, 1)$.

The seller S chooses a signal $s \in \{P, N\}$, where P denotes *Promising high quality in the name of God* and N denotes *No promise*. As with many verbal declarations, this promise does not entail a direct or immediate material cost to S. However, due to her religious beliefs, a low-type seller who chooses P incurs a "cosmic cost" $c > 0$ for lying (e.g., believing she will suffer in the afterlife). Importantly, because customers share the same belief system and observe these divine invocations, the associated cosmic costs become common knowledge rather than private information. This public verifiability of the cost structure is the central consideration of our analysis.

Prior work has shown that individuals face intrinsic costs of lying, which can also induce them to be truthful. For example, senders may feel guilt for disappointing others when lying (Charness and Dufwenberg, 2006). These findings suggest that, in principle, sellers may be able to signal their type through promises without divine invocations (Kartik, 2009). If customers believe that sellers face a sufficiently large intrinsic cost of lying, then these non-religious promises can be credible. Yet, a key issue is that such intrinsic costs are private information and are unverifiable. Therefore, even when sellers face high intrinsic costs that induces truthfulness, they may be unable to deliver this information credibly, leading skeptical customers to dismiss promises as "cheap talk." The invocation of God therefore

allows sellers to actively and publicly opt in to a high-cost regime for lying, augmenting the credibility of verbal commitments.

Customers observe the signal and update their belief about the seller's type using Bayes' Rule:

$$\mu_1(s) \equiv \Pr(H|s). \tag{3}$$

After customers update their beliefs, the seller receives a payoff for some $q \in (0,1)$:

$$u_\theta(s) = q \cdot \mu_1(s) - c \cdot 1_{\{\theta=L\}\cap\{s=P\}}, \tag{4}$$

a reduced-form modeling of her long-run payoffs (e.g., future sales), as in Belenzon et al. (2017). The payoff u_θ increases in μ_1; that is, all sellers prefer to be perceived as high type. The parameter q captures the probability that μ_1 affects the seller's long-run payoffs, e.g., through higher sales when the seller is perceived to be of high quality. We interpret q as reflecting S's access to substitutes for the signaling activity. For example, in settings where reputation built through repeated transactions reveals the seller's type, q may take a low value, implying that the marginal value of sending the costly signal is small.

Equilibrium We consider a partial-pooling Perfect Bayesian Equilibrium in which:[15]

- Type H always sends P.
- Type L sends P with probability $\alpha \in (0,1)$, and N with probability $1-\alpha$.

Given these strategies, customers update their belief that S is high type after observing

[15]We provide the parametric conditions for this equilibrium as follows: $\mu_0 q < c < q$. If $c \leq \mu_0 q$ (if the cosmic cost of making a false statement in the name of God is too low), we obtain a pooling equilibrium in which both high- and low-type sellers always promise in the name of God. Conversely, if $q \leq c$, we obtain a separating equilibrium in which high-type sellers always promise in the name of God, while low-type sellers never do so. Our empirical evidence in Section 2—specifically, the low frequency of promises (10–13 percent) and the variation in their frequency across seller and item types—is consistent with a partial-pooling equilibrium.

each signal:

$$\mu_1(P) = \frac{\mu_0}{\mu_0 + (1-\mu_0)\cdot\alpha} \in (0,1), \tag{5}$$

and $\mu_1(N) = 0$, since type H never sends N.

Substituting these into the payoff function yields $u_H(P) > u_H(N)$, so high-type sellers strictly prefer to send P. For low-type sellers to be indifferent between sending P and N, the following condition must hold:

$$u_L(P) = u_L(N) \quad \Leftrightarrow \quad q\cdot\mu_1(P) = c. \tag{6}$$

Combining equations (5) and (6) gives the following expression for α:

$$\alpha = \frac{(q-c)\cdot\mu_0}{c\cdot(1-\mu_0)}, \tag{7}$$

which yields a unique value in $(0,1)$ for given parameter values, provided that $c \in (\mu_0 \cdot q, q)$.[16]

The intuition behind this equilibrium is as follows. High-type sellers always promise in the name of God, as it enhances credibility without imposing any cost. Low-type sellers face a trade-off: they can increase perceived quality by mimicking high types, but doing so entails a cosmic cost c. When few low types mimic ($\alpha \to 0$), customers view the signal as highly informative, and the marginal benefit of lying is high. As more low types mimic ($\alpha \to 1$), the signal's informativeness declines, reducing its benefit. In equilibrium, α adjusts so that the marginal benefit of lying equals the marginal cost c.

Empirical Predictions We derive our empirical predictions from the comparative statics of the partial pooling equilibrium described above.

[16] First, $\alpha > 0$ if $q - c > 0$. Second, $\alpha < 1$ if $(q-c)\mu_0 - c(1-\mu_0) = \mu_0 \cdot q - c < 0$. If the cosmic cost of lying is too low ($c \leq \mu_0 \cdot q$), all low-type sellers mimic high-type sellers. If c is too high, no low-type seller mimics, resulting in a separating equilibrium.

- **Hypothesis 1.** *Items sold with a promise in the name of God are of higher quality than those sold without such a promise.*

This prediction follows directly from the model: high-type sellers are more likely to make such promises, rendering them a credible signal of quality.

- **Hypothesis 2.** *When sellers have better access to alternative commitment mechanisms (e.g., reputation), (i) low-type sellers are less likely to promise in the name of God, and (ii) such promises, when made, are more informative about product quality.*

Part (i) reflects the substitutability between costly signaling and alternative commitment mechanisms:

$$\frac{\partial \alpha}{\partial q} = \frac{\mu_0}{c \cdot (1 - \mu_0)} > 0. \tag{8}$$

Part (ii) follows from the intuition that when sellers with strong alternative mechanisms (i.e., sellers with low q) nonetheless choose to promise in the name of God, such promises are more likely to originate from high types, thereby increasing their informativeness:

$$\frac{\partial \mu_1(P)}{\partial q} = \frac{\partial \mu_1(P)}{\partial \alpha} \cdot \frac{\partial \alpha}{\partial q} = \left(-\frac{\mu_0 \cdot (1 - \mu_0)}{[\mu_0 + (1 - \mu_0) \cdot \alpha]^2} \right) \cdot \left(\frac{\mu_0}{c \cdot (1 - \mu_0)} \right) < 0. \tag{9}$$

- **Hypothesis 3.** *When sellers face higher cosmic costs (e.g., are more religious), (i) low-type sellers are less likely to promise in the name of God, and (ii) as a result, such promises, when made, are more informative about product quality.*

Part (i) reflects the idea that higher cosmic costs deter low-type sellers from lying:

$$\frac{\partial \alpha}{\partial c} = -\frac{\mu_0}{c \cdot (1 - \mu_0)} - \frac{(q - c) \cdot \mu_0}{c^2 \cdot (1 - \mu_0)} = -\frac{q \cdot \mu_0}{c^2 \cdot (1 - \mu_0)} < 0. \tag{10}$$

Part (ii) follows from the intuition that when sellers with higher cosmic costs still choose to promise, the signal is more likely to originate from high types, thereby increasing its

informativeness:

$$\frac{\partial \mu_1(P)}{\partial c} = \frac{\partial \mu_1(P)}{\partial \alpha} \cdot \frac{\partial \alpha}{\partial c} = \left(-\frac{\mu_0 \cdot (1-\mu_0)}{[\mu_0 + (1-\mu_0) \cdot \alpha]^2} \right) \cdot \left(-\frac{q \cdot \mu_0}{c^2 \cdot (1-\mu_0)} \right) > 0. \tag{11}$$

Discussion The above empirical predictions align with our earlier findings. We interpret mobile sellers as having higher values of q, given their limited access to a key commitment device—reputation built through repeated transactions. Our finding that mobile sellers are more likely to invoke God is therefore consistent with Hypothesis 2.

This framework also yields additional testable implications. If such promises function as a signaling device, then products sold with these promises should, on average, be of higher quality (Hypothesis 1). Moreover, the quality gap between items sold with and without such promises should be larger when sellers have greater access to alternative commitment mechanisms (Hypothesis 2) or face higher cosmic costs of lying (Hypothesis 3). Consequently, we expect consumers to respond more positively to such promises when the quality gap is expected to be larger. The next section describes two field experiments conducted to test these predictions and summarizes the results.

4 Experimental Results

In this section, we present two field experiments designed to test the empirical predictions derived in the previous section.

4.1 Experiment 1: Promise in the Name of God and Item Qualities

Our first experiment tests whether items sold with a promise made in the name of God to be of high quality are indeed of higher quality. Details of the experimental design are provided in Appendix A5.

Design We hired an additional research assistant to purchase 11 commonly consumed, non-perishable food items[17] from local markets, yielding 656 item–seller observations. For each purchase, the RA recorded key details, including the price paid, whether the item was packaged or sold loose, whether the seller operated from a physical shop or as a mobile seller, whether the seller appeared religious, and whether a religious oath was made during the negotiation.

We then conducted a tasting survey of the purchased items, recruiting customers of local grocery stores as participants. The survey was administered by a separate team of research assistants who were not involved in the purchases. It followed a double-blind design: neither the participants nor the administering research assistants knew the purpose of the study or which items had been sold with a promise in the name of God. Participants rated the taste of each item on a scale from 1 to 5, with higher scores indicating better taste. We interpret higher taste scores as reflecting higher product quality.

Table 4 reports summary statistics from our first experiment. Panel (a) summarizes the characteristics of purchased items and their sellers. Panel (b) splits the sample based on whether the seller made a promise in the name of God and compares their characteristics. We find that items sold with such promises are not priced significantly higher than those sold without them. In Table A2, we further examine price differences within the same item and format, finding that, if anything, items sold with a promise in the name of God were priced lower. These results mitigate concerns that any observed quality differences in our taste survey are driven by price rather than by the promise itself.

Consistent with the audio-recording analysis in Section 2, items sold with a promise in the name of God are more likely to come from mobile sellers than those sold without such promises. They are also more likely to be offered by sellers who appear religious. While religiosity may deter lower-quality sellers from invoking God to promise high quality, it may also indicate that high-type sellers who are religious experience less discomfort making such

[17]The list includes fresh dates, dried dates, noghl, Russian olive, pumpkin seeds, raisins, almonds, walnuts, candy, black tea, and green tea.

promises than their non-religious counterparts.

Panel (c) presents summary statistics for taste scores from 760 participants. Taste scores vary substantially across items and participants, with a standard deviation of 1.27, providing sufficient variation to analyze their determinants.

Results In Table 5, we present the results from estimating the following regression model:

$$\text{Score}_{ij} = \beta \cdot \text{Promise in the Name of God}_i + \mu_j + \rho_k + \varepsilon_{ij} \tag{12}$$

where the dependent variable, Score_{ij}, is the rating assigned by participant j to item i, ranging from 1 to 5, with higher values indicating better quality. The main independent variable, $\text{Promise in the Name of God}_i$, is an indicator equal to one if the tested item i was sold by a seller who invoked God during the negotiation. The variables μ_j and ρ_k denote participant and item-by-format fixed effects, respectively. Our statistical inference is based on standard errors clustered at the participant level.

Column (1) reports results without fixed effects, while columns (2) and (3) sequentially add participant fixed effects and item-by-format fixed effects. We find that items sold by sellers who invoked God receive scores 0.173 to 0.178 points higher than those sold without such promises. This effect is statistically significant and economically meaningful, representing about 5 percent of the average score of 3.40. These findings suggest that promises of high product quality made in the name of God are not merely cheap talk but convey information about quality.

In Table 6, we examine the heterogeneous effects of these promises on perceived product quality by estimating the following regression model:

$$\begin{aligned}\text{Score}_{ij} = \beta \cdot (\text{Promise in the Name of God}_i \times Z_i) + \\ \alpha_1 \cdot \text{Promise in the Name of God}_i + \alpha_2 \cdot Z_i + \mu_j + \rho_k + \varepsilon_{ij}\end{aligned} \tag{13}$$

where Z_i is an indicator equal to one if item i was sold by a seller with a religious appearance, by a seller without a fixed location, or in factory-packaged format, depending on the specification. The coefficient of interest, β, captures how the effect of a promise in the name of God differs when $Z_i = 1$ versus $Z_i = 0$. For brevity, we omit α_2 from the tabulated results.

In columns (1) and (2), we test whether promises made by sellers who appear more religious are more informative. This analysis is motivated by the empirical predictions from the framework in Section 3, which indicate that religious sellers, being more likely to internalize Islamic beliefs and the cosmic costs of lying, are less inclined to promise high quality in the name of God when selling low-quality items. To identify religious sellers, we rely on appearance attributes: a seller is classified as having a religious appearance if he has a beard, carries a tasbih, or wears a prayer cap. The results show that promises in the name of God are associated with taste scores that are 0.083 to 0.122 points higher when made by sellers with a religious appearance.

In columns (3) and (4), we examine whether promises are less informative when made by sellers without a fixed location. While items sold by mobile sellers are more likely to be accompanied by such promises (as documented in Tables 2 and 4), these promises are less informative about product quality. Specifically, promises in the name of God are associated with taste scores that are 0.124 to 0.133 points lower for mobile sellers. This pattern—more frequent but less informative promises—is consistent with low-type sellers engaging in more frequent mimicking because mobile sellers have limited access to alternative commitment devices, such as reputation.

In columns (5) and (6), we test whether the informativeness of promises in the name of God differs between items sold in factory-packaged versus loose format. We find that such promises are 0.181 to 0.184 points more informative for packaged items than for loose items. Packaging can partially reveal quality through features such as brand information, reducing low-type sellers' incentives to invoke God ex ante. As a result, low-type sellers may be less

likely to make such promises, increasing their informativeness ex post.

Overall, our results show that promises in the name of God are informative about product quality, particularly when sellers are likely to face higher cosmic costs of lying and when they lack access to alternative mechanisms such as reputation or information provision through packaging. These patterns align with our model's predictions of promises in the name of God as a signaling device. By contrast, interpreting such promises purely as identity signaling—intended to attract customers with a shared religious or cultural identity—offers limited explanatory power for the observed quality gap.

4.2 Experiment 2: Promise in the Name of God and Customer Responses

The second field experiment examines whether consumers respond positively to a promise made in the name of God when making a purchasing decision. The experiment is designed to isolate the mechanisms through which such promises affect consumer choices. Full details are provided in Appendix A6.

Design We partnered with a local wholesale company to conduct this field experiment in Kabul. The intervention leveraged the widespread practice of street vending via handcarts ("mobile sellers"), a common selling mode in the country that does not require a license.

We recruited 26 professional sellers with prior experience operating mobile handcarts. Each seller was assigned to sell five commonly available, non-perishable food items: black tea, candy, pasta, dried dates, and turmeric. Each item was offered in one of two formats: factory-packaged (sealed and labeled) or loose (stored in food-grade containers). All goods were centrally sourced in bulk by our partner company from high-quality suppliers, ensuring premium products while minimizing variation that could confound our analysis.

Each seller operated for 36 days, conducting two selling sessions per day—morning (8 a.m. to 12 p.m.) and afternoon (2 p.m. to 6 p.m.)—over approximately six weeks. Each seller–

day (i.e., one morning and one afternoon session) was randomly assigned to one product format: either all factory-packaged or all loose. Format was randomized at the seller–day level rather than the session level for logistical feasibility.

Neighborhoods were randomly selected from a pre-compiled list of areas in Kabul where mobile sellers are commonly found. Each morning, sellers positioned their carts at a location of their choosing within the assigned neighborhood. After a midday break, they relocated to a nearby street for the afternoon session. At the end of each session, we recorded the quantity sold for each item and the total revenue.

Two key experimental interventions were randomized at the seller–session level. The first was *oath instruction*: in treatment sessions, sellers were explicitly instructed to refrain from invoking a divine witness (e.g., "I swear to God") during interactions with customers. In control sessions, no such instruction was given. This intervention was designed to isolate the effects of invoking God on consumers' purchasing decisions.

The second was *poster display*: in treatment sessions, a poster was displayed on the same street, near the seller's cart, reminding customers that lying while invoking God incurs cosmic costs. This intervention was designed to isolate the proposed mechanism from other potential effects of promising in the name of God, including identity signaling or any effects generated by the instruction to refrain from invoking God. Specifically, the poster featured part of a verse from Qur'an 5:89:

> *Allah will not take you to account for a slip in your oaths. But He will take you to account for the oaths which you solemnly swear.*

Overall, this two-by-two design produced four subgroups: (i) no instruction and no poster, (ii) no instruction but poster displayed, (iii) instruction to refrain from invoking God but no poster displayed, and (iv) instruction to refrain from invoking God with poster displayed.

All goods were provided to sellers free of charge in their assigned format. Prices were centrally set at the median of at least five price quotes from local stores, stratified by format,

to reflect prevailing market conditions. Sellers did not retain any revenue; instead, they received a fixed monthly salary of AFN 10,000 (approximately USD 140), regardless of sales performance, plus a 5 percent commission on total sales to incentivize effort.

Table 7 reports summary statistics for 1,872 sales sessions conducted by 26 sellers over 36 days, with two sessions per day across five items. Consistent with our experimental design, the distribution is balanced across the following indicators: morning session (*Morning*), sessions offering factory-packaged items (*Packaged Items*), the oath instruction treatment (*Refraining Seller*), and the poster display treatment (*Reminding Poster*). On average, total sales per session amount to 1,641.6 AFN, with substantial variation reflected by a standard deviation of 459.2.

Results Table 8 presents the results of estimating the experiment's average treatment effects using the following linear regression model:

$$\log(\text{Total Sales}_i) = \beta \cdot (\text{Unrestricted Seller}_i \times \text{Reminding Poster}_i) + \alpha_1 \cdot \text{Unrestricted Seller}_i + \alpha_2 \cdot \text{Reminding Poster}_i + X_i\Gamma + \varepsilon_i \quad (14)$$

The dependent variable is the log of total sales across the five items sold in each session. *Unrestricted Seller* is an indicator for sessions in which the seller was not instructed to refrain from making a promise in the name of God. *Reminding Poster* is an indicator for sessions in which a poster reminding buyers of the cosmic cost of lying was displayed. X_i denotes a vector of control variables. The parameter of interest, β, captures the interaction effect of the two interventions, allowing us to isolate the importance of our proposed mechanism from other potential channels through which promises in the name of God might operate. Our statistical inference is based on standard errors clustered at the seller level.

We begin by examining the effects of the first intervention—instructing sellers to refrain from invoking God—separately for sessions with and without the reminding poster. In columns (1) and (2), we focus on the subsample without the poster, estimating specifications

both with and without fixed effects for sellers, neighborhoods, time of day (morning or afternoon), and item format (factory-packaged or loose). We find that sellers not instructed to refrain from making promises in the name of God achieved 5.4–5.6 percent higher sales than those who were instructed to refrain, suggesting that consumers respond positively to these promises.

Columns (3) and (4) repeat the analysis for sessions with the reminding poster. In this subsample, sellers not instructed to refrain achieved 13.2–14.2 percent higher sales than those instructed to refrain. The larger effects indicate that consumers respond more strongly to promises in the name of God when reminded that invoking God increases the seller's cosmic cost of lying.

Finally, columns (5) and (6) examine the interaction between the two interventions. We find that the effect of instructing sellers to refrain differs significantly between sessions with and without the reminding poster. The stronger negative effect of refraining in the presence of the poster is consistent with our proposed mechanism: increasing the perceived cost of lying by invoking God enhances customer trust and facilitates trade.

We further test the signaling model's predictions of heterogeneous effects of promising in the name of God. This analysis helps distinguish our proposed mechanism from alternative explanations, such as identity signaling. Table 9 presents results from estimating these effects across different subsamples.

In Panel (a), we split the sample based on whether the items sold were factory-packaged or loose and separately estimate Equation (14). Columns (1) and (2) report the estimated interaction effects of the first and second interventions for sessions selling factory-packaged items, while columns (3) and (4) report the corresponding effects for sessions selling loose items. We find that the interaction effects are stronger for factory-packaged items than for loose items.

This result is consistent with our proposed mechanism: information provided by packaging and labels partially reveals product quality, reducing the incentive for low-quality sellers

to mimic high-quality sellers by promising in the name of God. Consequently, when a seller does make such a promise, consumers interpret it as more likely to come from a high-quality seller and respond more positively.

In Panel (b), we split the sample based on whether the seller appears religious and separately estimate Equation (14). The indicator for religious appearance is constructed using the same criteria as in our taste survey: a seller is classified as having a religious appearance if he has a beard, carries a tasbih, or wears a prayer cap. Columns (1) and (2) report the estimated interaction effects for sessions operated by sellers who appear religious, while columns (3) and (4) report the corresponding effects for sessions operated by other sellers. We find that the interaction effects are stronger for sellers who appear religious.

This finding is also consistent with our proposed mechanism, as outlined in Section 3. When sellers who appear to have higher cosmic costs of lying still choose to promise in the name of God, customers perceive such promises as more credible and respond more positively.

Overall, the heterogeneous effects from our sales experiment support the interpretation that promises in the name of God function as a signaling device in Afghan marketplaces. Alternative explanations, such as identity signaling, are unlikely to explain why customers respond more positively to such promises when they are made for packaged items and by sellers who appear religious.

5 Conclusion

Trust is widely recognized as a key determinant of economic outcomes, particularly in countries with weak institutions. This paper addresses a longstanding question in economics: how can transacting parties build trust and overcome information frictions that impede exchange? We show that market participants actively leverage shared religious beliefs to foster trust, thereby preventing trade breakdowns that can arise from asymmetric information and prohibitively high contract enforcement costs.

While prior work has emphasized the potential role of verbal commitments, a central issue is whether the costs of lying can be credibly conveyed to receivers. Otherwise, promises may be dismissed as cheap talk rather than serving as a credible signal. We demonstrate that in a developing country with shared religious beliefs, verbal commitments can be reinforced through the public invocation of a divine witness, as such invocations credibly establish cosmic costs for lying. Using a series of field experiments conducted in Afghanistan—a setting characterized by weak institutions—we document that these reinforced verbal commitments are prevalent, convey information about product quality, and exert a significant positive effect on sales. Promising in the name of God thus operates as a credible signaling device that enables high-quality sellers to separate themselves from low-quality sellers.

Our finding that parties with private information can actively leverage shared religious beliefs to build trust broadens our understanding of religion's role in mitigating economic frictions. This complements prior research, which has largely portrayed religion as a passive force, such as a personal trait, shaping economic decisions (Iannaccone, 1998; Iyer, 2016; Becker et al., 2021). A prominent example is Max Weber's seminal work, *The Protestant Ethic and the Spirit of Capitalism* (Weber, 1934), which argues that Protestantism contributed to the eighteenth-century emergence of industrial capitalism by espousing predispositions positively associated with behaviors such as diligence, rationality, and thrift (Lenski et al., 1978; Delacroix and Nielsen, 2001).[18]

The findings of this paper have broad implications for how verbal commitments help build trust. Although our analysis centers on shared religious beliefs that raise the cost of making false claims, analogous practices exist outside religious contexts. In many societies, for instance, individuals swear on their mother's honor to signal deep sincerity.[19] These parallels illustrate how individuals can actively and publicly create costs of lying to foster

[18] As a proponent of Weber's thesis, Delacroix (1992) states, "The Protestant Reformation triggered a mental revolution which made possible the advent of modern capitalism. The worldview propagated by Protestantism broke with traditional psychological orientations through its emphasis on personal diligence, frugality, and thrift, on individual responsibility, and through the moral approval it granted to risk-taking and to financial self-improvement."

[19] Examples include *Te lo juro por mi madre* in Spain, *Maa Kasam* in India, and *Em-chang* in Korea.

trust and enable economic exchange, even when their force derives from secular or cultural norms rather than religious beliefs.

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Table 1: Summary Statistics: Audio Recordings of Sale Negotiations

This table presents summary statistics for audio recordings of negotiations. Panel (a) reports the correlation matrix for indicator variables denoting promises in the name of God as coded by different RAs. Panel (b) presents the unconditional means and standard deviations for the full sample, while Panel (c) splits the sample by seller type, fixed-location versus mobile sellers. See Appendix A1 for definitions of all variables.

(a) Correlation Between Promises in the Name of God Coded by RAs

	RA 1	RA 2	RA 3
Promise in the Name of God (RA 1)	1		
Promise in the Name of God (RA 2)	0.951	1	
Promise in the Name of God (RA 3)	0.858	0.839	1

(b) Full Sample

	Obs	Mean	Std.
Promise in the Name of God (RA 1)	1,081	0.12	0.33
Promise in the Name of God (RA 2)	1,081	0.13	0.34
Promise in the Name of God (RA 3)	1,081	0.10	0.30
Mobile Seller	1,081	0.13	0.33
Packaged Item	1,081	0.66	0.47
Food Item	1,081	0.88	0.32
Edible Raw	1,081	0.15	0.36

(c) Fixed-Location vs. Mobile Sellers

	Fixed-Location			Mobile			Fixed − Mobile	
	Obs	Mean	Std.	Obs	Mean	Std.	Diff.	t-stat
Promise in the Name of God (RA 1)	945	0.11	0.31	136	0.24	0.43	-0.14^{***}	(-3.55)
Promise in the Name of God (RA 2)	945	0.11	0.32	136	0.25	0.43	-0.14^{***}	(-3.51)
Promise in the Name of God (RA 3)	945	0.08	0.28	136	0.19	0.39	-0.11^{**}	(-3.10)
Packaged Item	945	0.74	0.44	136	0.14	0.35	0.60^{***}	(17.99)
Food Item	945	0.88	0.33	136	0.90	0.31	-0.02	(-0.63)
Edible Raw	945	0.12	0.32	136	0.41	0.49	-0.30^{***}	(-6.77)

Table 2: When Sellers Promise in the Name of God: Across-Seller Analysis

This table examines the association between seller and item characteristics and the frequency of invoking God. The dependent variable is *Promise in the Name of God*, equal to one if all three RAs indicated that the seller invoked God during the negotiation and zero otherwise. *Mobile Seller*, *Packaged Item*, and *Edible Raw* are indicators equal to one if the item was sold by a seller without a fixed location, the item was sold in factory-packaged format, and the item is edible in its raw state, respectively. Standard errors are clustered at the neighborhood and are reported in parentheses. $*$, $**$, and $***$ indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively. See Appendix A1 for definitions of all variables.

Dep. Var.:	Promise in the Name of God		
	(1)	(2)	(3)
Mobile Seller	0.1070***		0.0925**
	(0.0314)		(0.0374)
Packaged Item		−0.1163***	−0.0986***
		(0.0285)	(0.0320)
Edible Raw		−0.0885**	−0.1244***
		(0.0396)	(0.0454)
Packaged Item × Edible Raw		0.1181**	0.1502***
		(0.0503)	(0.0548)
Constant	0.0818***	0.1758***	0.1553***
	(0.0040)	(0.0199)	(0.0232)
Neighborhood FEs	✓	✓	✓
Obs	1,081	1,081	1,081
Adj. R^2	0.02	0.04	0.04
Mean of Dep. Var.	0.10	0.10	0.10

Table 3: When Sellers Promise in the Name of God: Within-Seller Analysis

This table examines whether sellers are more likely to invoke God when selling items with more opaque quality. The dependent variable is *Promise in the Name of God*, equal to one if all three RAs indicated that the seller invoked God during the negotiation and zero otherwise. *Opacity Index* is a score from 1 to 3 measuring how difficult it is to evaluate an item's quality prior to consumption or use, while *High Opacity* is an indicator equal to one if an item's *Opacity Index* is above the median value across all items. All regressions include seller fixed effects. Standard errors are clustered at the seller level and reported in parentheses. $*$, $**$, and $***$ indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively. See Appendix A1 for definitions of all variables.

Dep. Var.:	Promise in the Name of God	
	(1)	(2)
Opacity Index (1 to 3)	0.1703***	
	(0.0547)	
High Opacity		0.0420**
		(0.0199)
Seller FEs	✓	✓
Obs	1,039	1,039
Adj. R^2	0.01	0.00
Mean of Dep. Var.	0.09	0.09

Table 4: Summary Statistics: Taste Survey

This table presents summary statistics for purchased items and taste survey responses. Panel (a) reports the unconditional means and standard deviations for purchased items. Panel (b) splits the sample by whether the seller invoked God during the purchase. Panel (c) reports the unconditional means and standard deviations of taste scores from 760 survey participants. See Appendix A1 for definitions of all variables.

(a) All Items

	Obs	Mean	Std.
Price per Kilogram	656	294.61	158.51
Packaged Item	656	0.47	0.50
Mobile Seller	656	0.16	0.37
Religious Appearance	656	0.51	0.50
Promise in the Name of God	656	0.09	0.29

(b) Items Sold with a Promise in the Name of God

	With Promise			Without Promise			Without − With	
	Obs	Mean	Std.	Obs	Mean	Std.	Diff.	t-stat
Price per Kilogram	61	305.66	161.66	595	293.48	158.27	−12.18	(−0.56)
Packaged Item	61	0.44	0.50	595	0.47	0.50	0.03	(0.47)
Mobile Seller	61	0.44	0.50	595	0.13	0.34	-0.31^{***}	(−4.70)
Religious Appearance	61	0.56	0.50	595	0.50	0.50	−0.05	(−0.81)

(c) Taste Scores

	Obs	Mean	Std.
Score (1 to 5)	41,477	3.40	1.27

Table 5: Are Items Sold with a Promise in the Name of God of Higher Quality?

This table examines whether food items sold with a promise in the name of God received higher scores in the double-blind taste survey. The dependent variable is *Score*, ranging from 1 to 5, assigned by a taste survey participant to a given item. *Promise in the Name of God* is an indicator equal to one if the research assistant who purchased the item reported that the seller invoked God during the negotiation. Standard errors are clustered at the participant level and reported in parentheses. $*$, $**$, and $***$ indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively. See Appendix A1 for definitions of all variables.

Dep. Var.:	Score (1: Bad, 5: Good)		
	(1)	(2)	(3)
Promise in the Name of God	0.1727***	0.1766***	0.1776***
	(0.0199)	(0.0200)	(0.0204)
Constant	3.3869***	3.3865***	3.3864***
	(0.0065)	(0.0019)	(0.0019)
Participant FEs		✓	✓
Item×Format FEs			✓
Obs	41,477	41,477	41,477
Adj. R^2	0.00	0.00	0.01
Mean of Dep. Var.	3.40	3.40	3.40

Table 6: Promise in the Name of God and Item Quality: Heterogeneity Analysis

This table examines the heterogeneous effects of promises in the name of God on the taste scores of food items in the double-blind taste survey. The dependent variable is *Score*, ranging from 1 to 5, assigned by a taste survey participant to a given item. *Promise in the Name of God* is an indicator equal to one if the research assistant who purchased the item reported that the seller invoked God during the negotiation. *Religious Appearance*, *Mobile Seller*, and *Packaged Item* are indicators equal to one if the item was sold by a seller with a religious appearance, if the item was sold by a seller without a fixed location, and if the item was sold in factory-packaged format, respectively. Standard errors are clustered at the participant level and reported in parentheses. $*$, $**$, and $***$ indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively. See Appendix A1 for definitions of all variables.

Dep. Var.:	Score (1: Bad, 5: Good)					
	(1)	(2)	(3)	(4)	(5)	(6)
Promise in the Name of God	0.1055***	0.1289***	0.2213***	0.2216***	0.0951***	0.0963***
	(0.0315)	(0.0319)	(0.0264)	(0.0268)	(0.0283)	(0.0288)
Promise in the Name of God						
× Religious Appearance	0.1224***	0.0828**				
	(0.0410)	(0.0420)				
Promise in the Name of God						
× Mobile Seller			−0.1241***	−0.1325***		
			(0.0446)	(0.0448)		
Promise in the Name of God						
× Packaged Item					0.1840***	0.1807***
					(0.0433)	(0.0437)
Participant FEs	✓	✓	✓	✓	✓	✓
Item×Format FEs		✓		✓		✓
Obs	41,477	41,477	41,477	41,477	41,477	41,477
Adj. R^2	0.00	0.01	0.00	0.01	0.00	0.01
Mean of Dep. Var.	3.40	3.40	3.40	3.40	3.40	3.40

Table 7: Summary Statistics: Sales

This table presents summary statistics for 1,872 sales sessions conducted by 26 sellers over 36 days, with two sessions per day and five food items in each session. *Morning* is an indicator equal to one for morning sessions and zero for afternoon sessions. See Appendix A1 for definitions of the other variables.

	Obs.	Mean	Std.
Morning	1,872	0.50	0.50
Packaged Item	1,872	0.51	0.50
Unrestricted Seller	1,872	0.51	0.50
Religious Appearance	1,872	0.31	0.46
Reminding Poster	1,872	0.50	0.50
Total Sales (AFN)	1,872	1641.56	459.23

Table 8: Do Promises in the Name of God Increase Sales?

This table analyzes the effects of the two experimental interventions on total sales revenue during a session. The dependent variable is the log of sales revenue from the five items sold in each session. *Unrestricted Seller* is an indicator for sessions in which the seller was not instructed to refrain from invoking God. *Reminding Poster* is an indicator for sessions in which a poster reminding buyers of the cosmic cost of lying under divine invocations was displayed. Columns (1) and (2) focus on the subsample of sessions without the reminding poster, columns (3) and (4) focus on the subsample with the poster, and columns (5) and (6) analyze the interaction between the two interventions using the full sample. Standard errors are clustered at the seller level and reported in parentheses. $*$, $**$, and $***$ indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively. See Appendix A1 for definitions of all variables.

Dep. Var.:	Total Sales (in log)					
	Without Poster		With Poster		All	
	(1)	(2)	(3)	(4)	(5)	(6)
Unrestricted Seller	0.0558**	0.0542**	0.1318***	0.1422***	0.0558**	0.0503**
	(0.0225)	(0.0196)	(0.0245)	(0.0231)	(0.0225)	(0.0183)
Reminding Poster					0.0185	0.0150
					(0.0193)	(0.0215)
Unrestricted Seller						
× Reminding Poster					0.0760**	0.0903***
					(0.0312)	(0.0286)
Morning FEs		✓		✓		✓
Seller FEs		✓		✓		✓
Neighborhood FEs		✓		✓		✓
Item Format FEs		✓		✓		✓
Obs	945	945	927	927	1,872	1,872
Adj. R^2	0.01	0.32	0.04	0.28	0.03	0.31
Mean of Dep. Var.	7.33	7.33	7.39	7.39	7.36	7.36

Table 9: Promises in the Name of God and Customer Responses: Heterogeneity Analysis

This table examines the heterogeneous effects of promises in the name of God on total sales revenue during a session. The dependent variable is the log of sales revenue from the five items sold in each session. *Unrestricted Seller* is an indicator for sessions in which the seller was not instructed to refrain from invoking God. *Reminding Poster* is an indicator for sessions in which a poster reminding buyers of the cosmic cost of lying under divine invocations was displayed. In Panel (a), the sample is split by whether the items offered were factory-packaged or sold in loose format. In Panel (b), the sample is split based on whether the session was conducted by a seller with a religious appearance. A seller is classified as having a religious appearance if he has a beard, carries a tasbih, or wears a prayer cap. Standard errors are clustered at the seller level and reported in parentheses. $*$, $**$, and $***$ indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively. See Appendix A1 for definitions of all variables.

(a) Factory-Packaged vs. Loose Items

Dep. Var.:	Total Sales (in log)			
	Factory-Packaged		Loose	
	(1)	(2)	(3)	(4)
Unrestricted Seller				
× Reminding Poster	0.1176**	0.1162**	0.0509**	0.0535**
	(0.0533)	(0.0559)	(0.0196)	(0.0213)
Morning FEs		✓		✓
Seller FEs		✓		✓
Neighborhood FEs		✓		✓
Obs	948	948	924	924
Adj. R^2	0.04	0.04	0.08	0.07
Mean of Dep. Var.	7.19	7.19	7.53	7.53

(b) Sellers with a Religious Appearance vs. Those without

Dep. Var.:	Total Sales (in log)			
	Religious Appearance		Others	
	(1)	(2)	(3)	(4)
Unrestricted Seller				
× Reminding Poster	0.1322*	0.1498**	0.0566	0.0598*
	(0.0608)	(0.0480)	(0.0341)	(0.0320)
Morning FEs		✓		✓
Seller FEs		✓		✓
Neighborhood FEs		✓		✓
Item Format FEs		✓		✓
Obs	576	576	1,296	1,296
Adj. R^2	0.05	0.31	0.02	0.30
Mean of Dep. Var.	7.33	7.33	7.37	7.37

Appendix

A1 Variables Definition

Audio Recordings

- *Promise in the Name of God (RA 1)*: An indicator equal to one for a sales negotiation if research assistant 1 judged that it included a promise in the name of God made by the seller.
- *Promise in the Name of God (RA 2)*: An indicator equal to one for a sales negotiation if research assistant 2 judged that it included a promise in the name of God made by the seller.
- *Promise in the Name of God (RA 3)*: An indicator equal to one for a sales negotiation if research assistant 3 judged that it included a promise in the name of God made by the seller.
- *Promise in the Name of God*: An indicator equal to one for a sales negotiation if all three research assistants judged that it included a promise in the name of God made by the seller.
- *Mobile Seller*: An indicator equal to one for a sales negotiation if the seller operates as a mobile seller.
- *Packaged Item*: An indicator equal to one for a sales negotiation if the item is factory-packaged rather than sold in loose format.
- *Food Item*: An indicator equal to one for a sales negotiation if the item is food.
- *Edible Raw*: An indicator equal to one for a sales negotiation if the item is edible in its raw state.

- *Opacity Index (1 to 3)*: A score ranging from 1 (low) to 3 (high) for an item, measuring how difficult it is to evaluate the item's quality prior to consumption or use. The full procedure for constructing this index is described in Appendix A4.

- *High Opacity*: An indicator equal to one for an item if its *Opacity Index* is above the median value across all items.

Experiment 1: Taste Survey

- *Price per Kilogram*: Price per kilogram, in local currency (Afghani), of a purchased item.

- *Packaged Item*: An indicator equal to one for a purchased item if it was sold in factory-packaged format rather than in loose form.

- *Mobile Seller*: An indicator equal to one for a purchased item if it was sold by a mobile seller rather than by a seller with a fixed location.

- *Religious Appearance*: An indicator equal to one for a purchased item if it was sold by a seller with a religious appearance. A seller is classified as having a religious appearance if he has a beard, carries a tasbih, or wears a prayer cap.

- *Score (1 to 5)*: A score ranging from 1 (bad) to 5 (good) assigned by a taste survey participant to the item.

Experiment 2: Sales

- *Morning*: An indicator equal to one for a sales session if conducted in the morning and zero if conducted in the afternoon.

- *Packaged Item*: An indicator equal to one for a sales session if the items offered for sale were in factory-packaged format.

- *Unrestricted Seller*: An indicator equal to one for a sales session if the seller was not instructed to refrain from making a promise in the name of God. See Appendix A6 for details.

- *Reminding Poster*: An indicator equal to one for a sales session if a poster reminding customers that lying while invoking God incurs cosmic costs was displayed. See Appendix A6 for details.

- *Religious Appearance*: An indicator equal to one for a sales session if it was run by a seller with a religious appearance. A seller is classified as having a religious appearance if he has a beard, carries a tasbih, or wears a prayer cap.

- *Total Sales (AFN)*: Total sales revenue, in local currency (Afghani), for the session.

A2 Robustness Checks

Table A1: Robustness Checks: Audio Recordings of Sale Negotiations

This table replicates the analyses in Tables 2 and 3 using alternative dependent variables. The dependent variables are indicators equal to one for a given sales negotiation if research assistant 1, 2, or 3 judged that the seller made a promise in the name of God, respectively. All other variables are defined as in Tables 2 and 3. Panel (a) reports results from the across-seller analysis, as in Table 2, and Panel (b) reports results from the within-seller analysis, as in Table 3. Standard errors are reported in parentheses and are clustered at the neighborhood level in Panel (a) and at the seller level in Panel (b). $*$, $**$, and $***$ indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively. See Appendix A1 for definitions of all variables.

(a) Across-Seller Analysis

Dep. Var.:	Promise in the Name of God								
	RA 1			RA 2			RA 3		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Mobile Seller	0.1296***		0.1300***	0.1319***		0.1341***	0.1145***		0.1016***
	(0.0406)		(0.0386)	(0.0373)		(0.0378)	(0.0299)		(0.0358)
Packaged Item		−0.1253***	−0.1004***		−0.1300***	−0.1044**		−0.1187***	−0.0993***
		(0.0318)	(0.0342)		(0.0347)	(0.0387)		(0.0283)	(0.0320)
Edible Raw		−0.1188***	−0.1693***		−0.1301***	−0.1821***		−0.0908**	−0.1302***
		(0.0374)	(0.0398)		(0.0386)	(0.0418)		(0.0396)	(0.0455)
Packaged Item × Edible Raw		0.1798***	0.2249***		0.1881***	0.2347***		0.1204**	0.1557***
		(0.0501)	(0.0543)		(0.0525)	(0.0583)		(0.0501)	(0.0547)
Constant	0.1077***	0.2098***	0.1810***	0.1148***	0.2214***	0.1916***	0.0818***	0.1784***	0.1559***
	(0.0051)	(0.0231)	(0.0254)	(0.0047)	(0.0250)	(0.0287)	(0.0038)	(0.0198)	(0.0232)
Neighborhood FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓
Obs	1,081	1,081	1,081	1,081	1,081	1,081	1,081	1,081	1,081
Adj. R^2	0.03	0.04	0.05	0.03	0.04	0.05	0.02	0.04	0.04
Mean of Dep. Var.	0.12	0.12	0.12	0.13	0.13	0.13	0.10	0.10	0.10

(b) Within-Seller Analysis

Dep. Var.:	Promise in the Name of God					
	RA 1		RA 2		RA 3	
	(1)	(2)	(3)	(4)	(5)	(6)
Opacity Index (1 to 3)	0.1870***		0.1936***		0.1732***	
	(0.0613)		(0.0624)		(0.0548)	
High Opacity		0.0438*		0.0455*		0.0420**
		(0.0229)		(0.0240)		(0.0199)
Seller FEs	✓	✓	✓	✓	✓	✓
Obs	1,039	1,039	1,039	1,039	1,039	1,039
Adj. R^2	0.03	0.03	0.03	0.02	0.01	-0.00
Mean of Dep. Var.	0.12	0.12	0.13	0.13	0.10	0.10

Table A2: Are Items Sold with a Promise in the Name of God More Expensive?

This table presents estimation results from regressing the prices of items purchased for the taste survey on an indicator for whether the seller made a promise in the name of God during the negotiation. In column (1), the dependent variable is the item's price, and in column (2), it is the log of the item's price. Standard errors are clustered at the Item×Format level and reported in parentheses. $*$, $**$, and $***$ indicate statistical significance at the 10 percent, 5 percent, and 1 percent levels, respectively. See Appendix A1 for definitions of all variables.

Dep. Var.:	Price	Price (in log)
	(1)	(2)
Promise in the Name of God	-11.9017^{*}	-0.0294^{*}
	(6.1069)	(0.0159)
Constant	295.7180^{***}	5.5587^{***}
	(0.5679)	(0.0015)
Item×Format FEs	✓	✓
Obs	656	656
Adj. R^2	0.94	0.91
Mean of Dep. Var.	294.61	5.56

A3 Audio Recordings of Sale Negotiations: Data Collection

Our research assistants, based in Afghanistan, conducted fieldwork by engaging with sellers in various local markets across Kabul, the capital city. Their instruction was:

> Visit local markets of your choice and gather information from each seller regarding the prices and quality of the items they have for sale.

These markets included both store-based sellers and mobile sellers operating carts across different neighborhoods. While the choice of regions for conducting trade negotiations was not formally randomized, we fully covered our research assistants' transportation costs to ensure broad geographic coverage across Kabul's neighborhoods.

Rather than providing research assistants with a fixed set of survey questions, our goal was to capture the natural flow of conversation typical in marketplace settings. Accordingly, the focus was on documenting organic interactions between buyers and sellers. Importantly, research assistants were not informed of our research questions or our focus on invoking God. Following an initial greeting, research assistants requested verbal consent to audio record the conversation. Given the country's low literacy rate (37 percent), consent was sought verbally using the following script:

> We are a research team seeking to understand market conditions, including items sold in marketplaces, their qualities, and prices. If you agree, may we audio-record our conversation for later analysis? If you agree to participate, we will pay you 100 Afghanis. Participation is entirely voluntary, and you are free to decline. I will not ask for or record any identifiable information, and the recording will be kept solely by me. If you have any questions or concerns, please feel free to contact me using this name card.

The name card included the research assistant's phone number (+93-74-862-XXXX), masked here for privacy. If consent was granted, the research assistant proceeded to record

conversations that focused on the goods for sale. To protect the rights of sellers, research assistants were instructed not to ask questions beyond the scope of what would naturally occur in a typical transaction. Sellers were asked to behave as if no recording were taking place. The conversations were recorded using standard Sony voice recorders and revolved around topics such as price, product quality, and country of origin. Each conversation typically lasted from one to a few minutes. No identifying information was collected.

All sellers in the visited markets who had items available for sale were eligible to participate in the study. As noted above, after the initial greeting, research assistants verbally requested the seller's permission to record the conversation and informed them that a compensation of 100 Afghanis in cash (approximately 1.5 USD) would be provided upon completion. If the seller agreed, the research assistant began recording and paid the compensation at the end of the conversation. If the seller declined, the research assistant left without conducting the interview or offering any payment. For context, 100 Afghanis is equivalent to about two pounds of white rice in Afghanistan.

To identify instances of religious oaths made by sellers, we recruited three research assistants fluent in Dari, the dialect of Persian used in the sales negotiation conversations. Each research assistant worked independently and was unaware that others had also been recruited for the same task. The instruction given to each assistant was as follows:

> The attached Excel file contains transcripts of sales negotiations between our research assistants and various sellers in Afghanistan. The columns are: Date, Audio-File-Number, RA, Item, and Transcript-in-Dari. Each row represents a portion of a sales negotiation about a single item, as captured in a specific audio file.
>
> For example, in the negotiation recorded under Audio-File-Number=1, the research assistant discussed three items with the seller: flour, oil, and rice. Accordingly, the file contains three rows—one for each item—with the Transcript-in-Dari column containing the segment of the conversation specific to that item.

The transcripts also indicate which sentences were spoken by the seller.

Read each row carefully to determine whether the seller invokes a divine witness (God or another religious entity) to support their statements. The invocation must be made by the seller, not the buyer. In the Excel file, use the column titled "Religious-Vow" to record this information: enter 1 if the conversation includes such an invocation, and 0 otherwise.

A4 Survey on Perceived Opacity of Product Quality

After collecting the sale negotiations, we analyzed the transcripts. Across these conversations, approximately 150 unique items were mentioned. To measure the perceived opacity of quality for each item, we conducted a street survey in Kabul. Our research assistants approached passersby and verbally administered a survey evaluating 20 goods. These 20 items were randomly selected without replacement from the full list of items. Research assistants were provided with 1,000 lists, each containing 20 randomly selected items, printed on paper for use during the survey.

Given the country's low literacy rate, we instructed our research assistants to read both the survey question and the list of 20 items aloud to each respondent. No identifying information was collected from participants to preserve their privacy and confidentiality. For each item, respondents were asked the following question:

> How hard is it to assess the quality of <item> before consuming or using it?
>
> - Hard
> - Neutral
> - Easy

The full list of items, in alphabetical order, includes: a particular spice, Acroband dishes, almond, apple, Arcopal dishes, bag, banana, battery, bean, black pepper, black tea, blanket, boot, butter, candy, cardamom, carpet, castor oil, cauldron, cement, charger, cheese, chicken, chickpea, chilghoza pine, chocolate, cinnamon, closet, coal, cocoa, condenser, cookie, cough medicine, cream, cumin, dates, davaye dig (a spice mix), dish, dish-washing liquid, dish-washing powder, dry fig, eggplant, energy drink, engine oil, faucet, fig, flask, flour, garlic, gas tap, ginseng, glass dishes, green beans, green tea, hair oil, hands-free, hat, heater, honey, iron, jacket, jam, juice, juicing machine, jumper, kiwi, laundry powder, lemon, lentils, lamp, lock, Masala, melamine dishes, melamine set, microphone, milk, mixed nuts, mobile,

mobile top-up, mulberries, mung beans, notebook, nuts, oil, okra, olive oil, onion, orange, paint, pajamas, pants, paper, pasta, pear, pencil, pepper, pickle, pipe, pistachio, plaster, pomegranate, potato, pumpkin seed, qaraqorut, raisins, rice, rose water, rug, rug cover, ruler, Russian olive, saffron, scarf, sesame oil, shampoo, sharpener, shaver, silk, soap, socks, soft-cooking lentils, soybean, split pea, stew lentils, sugar, sugar cubes, suitcase, tangerine, tea, tissue, tomato, tomato paste, turmeric, turnip, TV, vacuum cleaner, Vaseline, velvet, vest, washing machine, washing powder, weight gaining medicine, weight losing medicine, wire, wood, and zucchini.

A5 Details of Experiment 1: Promise in the Name of God and Item Qualities

After completing the street survey, we hired a different individual as a research assistant to conduct a double-blind taste survey. The purpose of this survey was to test whether items sold in the name of God—where the seller made a religious oath during the sales negotiation—are of higher quality.

The research assistant was tasked with purchasing from local markets one item from a predetermined set of food items. This set included almonds, black tea, candy, dried dates, fresh dates, green tea, Noghl (sugar-coated almonds, a traditional Afghan sweet), pumpkin seeds, raisins, Russian olive, and walnuts. Upon entering each shop, the assistant informed the seller that the purchase was for a taste test, using the following script:

> Hi, I'm buying samples of common food items such as dates for a taste test. I'd like to buy [amount] of [item] from you, if that's okay.

Once the sales negotiation had fully concluded and no additional purchases were planned, the research assistant debriefed the seller. This delayed disclosure was intentional, as revealing the research objective beforehand could have influenced the seller's behavior.

For each purchase, the research assistant recorded several pieces of information, including the price paid; whether the item was packaged or sold loose; whether the seller operated a physical shop or was a mobile seller; whether the seller appeared religious (i.e., had a beard, wore a religious cap, or carried a tasbih); and whether a religious oath was made during the sales negotiation.

After completing the purchases, the research assistant labeled each item with a unique code and compiled a dataset that included the item name, code, price, and all additional recorded attributes. The assistant's role ended at this stage. A separate team of research assistants was subsequently recruited to conduct the taste-testing experiment. To recruit participants, this team distributed invitation cards at local grocery stores, placing them in

visible areas with the store owners' permission.

Participation was entirely voluntary, and each session lasted less than one hour. Upon arrival, participants received an information sheet, shown in Figure A1. The survey followed a double-blind design in which neither the participants nor the research assistants administering the taste experiment knew which items had been sold by sellers who promised in the name of God. Moreover, neither group was aware of the study's hypothesis. While the information sheet did not explicitly disclose the research question, it was consistent with the spirit of the study.

Participants who chose to join were provided with a paper survey form (Figure A2) and invited to taste and rate the items at their own pace. They were free to sample as many or as few items as they wished and could leave at any time without completing the survey.

Participants were randomly assigned to one of three groups—A, B, or C—and directed to separate rooms. Each room contained a random subset of the purchased items for taste testing and evaluation. The only difference across the groups was the random allocation of items to each room. For example, in Session 1, we had 23 samples of fresh dates, each purchased from a different seller at varying prices. Table A3 presents how these samples were randomly allocated across the three rooms in that session.

Table A3: Example of Random Assignment of Items to Rooms in the Taste-Testing Experiment

This table illustrates the allocation of food items across the three rooms during the taste survey. In Session 1, there were 23 samples of fresh dates, each purchased from a different seller at varying prices and labeled with item numbers 1 to 23. The table shows how these samples were randomly assigned to the three rooms in that taste-testing session.

Item Number	Room Assigned	Packaged	Price (AFN/kg)	Moving Seller	Moving Seller No Reg. Place	Religious Looking Seller	Promise Made
1	1	1	150	0	0	1	0
2	1	1	180	0	0	1	0
3	1	1	160	0	0	1	0
4	1	1	140	0	0	0	0
5	3	1	160	0	0	1	0
6	3	1	200	0	0	1	0
7	2	1	190	0	0	0	0
8	2	1	190	0	0	0	0
9	1	1	180	0	0	0	0
10	2	1	200	0	0	1	0
11	1	1	150	1	0	1	0
12	1	1	160	0	0	1	0
13	1	1	220	0	0	1	0
14	1	1	240	0	0	1	0
15	2	1	140	0	0	1	1
16	1	0	200	0	0	1	0
17	1	0	150	0	0	0	0
18	3	0	140	0	0	0	0
19	1	0	150	0	0	0	0
20	1	0	150	0	0	0	0
21	1	0	180	0	0	0	0
22	2	0	160	1	0	1	0
23	2	0	170	0	0	0	0

INDIANA UNIVERSITY RESEARCH STUDY

Study Information Sheet

A Promise in the Name of God (IRB: #25261)

Hello,

A research team of economists from Indiana University, USA, is studying how price relates to product quality. As part of this study, you are invited to help by taste-testing samples and rating their quality.

This research is intended for individuals 18 years of age or older. If you are under 18, please do not participate.

Participation is voluntary, takes less than one hour, and involves no payment or cost. You may skip any items, stop at any time, or choose not to participate at all.

There is a small risk that someone outside the study team could access your responses, but no identifiable information will be collected.

If you agree to participate, you will receive a sheet to record your taste scores for the items you try.

If you have questions or encounter any issues, please speak with Mr. Jan Ali on site.

The study is conducted by a team of economists led by Dr. Navid Neshat at Indiana University. If you have any questions about the study, contact Dr. Neshat at nneshat@iu.edu. For questions about your rights as a participant or to report concerns, contact the IU Human Research Protection Program at 800-696-2949 or irb@iu.edu.

We hope you choose to participate, but you are free to decline and opt out at any time.

Sincerely,

Dr. Navid Neshat

Version 04/22/2025

Figure A1: Information Sheet for the Taste-Testing Experiment

This figure shows the information sheet (translated into English) that was provided to participants of the taste survey upon arrival.

Survey

After tasting each item, please rate its quality on a scale from 1 to 5, where:

- 1 = Very Poor Quality
- 5 = Very Good Quality

Item Number	Rating (1 to 5)

Figure A2: Survey Form for the Taste-Testing Experiment

This figure shows the hard-copy survey form provided to participants of the taste survey after they agreed to participate.

A6 Details of Experiment 2: Religious Oath and Customer Responses

To examine whether invoking religious oaths affects sales outcomes, we partnered with a local wholesale company to conduct a field experiment in Kabul, Afghanistan. The intervention leveraged the widespread practice of street vending via handcarts, a common mode of selling in the country that does not require a license.

We recruited 26 professional sellers with prior experience operating mobile handcarts. Each seller was assigned to sell five commonly available, non-perishable food items: black tea, candy, pasta, dried dates, and turmeric. These products were selected for their durability and familiarity to local consumers.

Each item was offered in one of two formats:

1. Factory-packaged: sealed and labeled
2. Loose: stored in food-grade containers

To ensure consistency and minimize variation in quality, all goods were centrally sourced in bulk by our partner company from high-quality suppliers. This approach guaranteed premium products for customers while also reducing variation that could confound our empirical analysis.

Each seller operated for 36 days, conducting two selling sessions per day—morning (8:00 AM to 12:00 PM) and afternoon (2:00 PM to 6:00 PM)—over approximately six weeks. Sellers took a midday break and relocated their carts to a nearby street within the same neighborhood for the afternoon session.

Each seller–day (i.e., one morning and one afternoon session) was randomly assigned one product format—either all factory-packaged or all loose. Format was randomized at the seller–day level, rather than at the session level, for logistical feasibility.

Neighborhoods were randomly selected from a pre-compiled list of areas in Kabul where mobile sellers are commonly found (Table A4). Each day, sellers positioned their carts at a

location of their choosing within the assigned neighborhood. In the afternoon, they relocated to a nearby street of their choice.

Two key experimental interventions were randomized at the seller–session (i.e., morning or afternoon) level:

1. Oath Instruction: In treatment sessions, sellers were explicitly instructed to refrain from using religious oaths or invoking sacred references (e.g., "I swear to God") during interactions with customers. In control sessions, no such instruction was given.

2. Poster Display: In treatment sessions, a poster was displayed on the street near the seller. The poster featured part of a verse from the Qur'an:

> Allah will not take you to account for a slip in your oaths. But He will take you to account for the oaths which you solemnly swear... (Qur'an 5:89)

An explanatory translation by Dr. Mohammad Mahmud Ghali expands on the verse as follows:

> Allah does not take you to task for an idleness in your oaths, but He takes you to task for whatever contracts you have made by oaths. So the expiation thereof is the feeding of ten indigent persons with the average of that wherewith you feed your own families; or their raiment; or the freeing of a neck (i.e., a slave). Yet, for him who does not find the means, then (the expiation is) the fasting for three days. That is the expiation of your oaths when you have sworn; and keep your oaths. Thus Allah makes evident to you His signs, that possibly you would thank (Him).

This two-by-two design resulted in four treatment arms:

1. No instruction, no poster

2. No instruction, poster displayed

3. Instruction to refrain from oaths, no poster

4. Instruction to refrain from oaths, poster displayed

All goods were provided to sellers free of charge in their assigned format. Prices were centrally set at the median of at least five price quotes from local stores, stratified by format, to reflect prevailing market conditions.

Sellers did not retain any revenue. Instead, they received a fixed monthly salary of AFN 10,000 (approximately USD 140), regardless of sales performance. In addition, they earned a five percent commission on their total sales to incentivize effort.

At the end of each session, we recorded the quantity sold for each item and collected all revenue. No personally identifiable information was collected from buyers, ensuring full privacy and anonymity.

Each seller participated in 36 days of selling, with two sessions per day across five items, yielding 9,360 seller-session-item observations. With two randomized interventions at the session level, we expect an even distribution of approximately 2,340 observations across each of the four treatment arms.

Table A4: List of Neighborhoods in Kabul Where Mobile Sellers Are Commonly Found

This table shows the pre-compiled list of areas in Kabul where mobile sellers are commonly found. This list was used in the selling field experiment, in which an area from the list was randomly assigned to each seller on a given day, and sellers were instructed to locate their carts within the assigned neighborhood for both the morning and afternoon sessions on that day. See Appendix A6 for details on this experiment.

Number	Neighborhood	Number	Neighborhood
1	Afshar	25	Khushal Khan Mina
2	Ahmad Shah Baba Mina	26	Kote Sangi
3	Andarabi	27	Makroryan
4	Bist Hazari	28	Mandawi
5	Chahar Qala Wazirabad	29	Mirwais Maidan
6	Char Qala	30	Muradkhani
7	Chehel Sotoon	31	Pul-e-Charkhi
8	Chendawol	32	Pul-e-Sorkh
9	Darul Aman	33	Pul-e-Sukhta
10	Dasht-e-Barchi	34	Qala-e-Musa
11	Deh Afghanan	35	Qala-e-Najara
12	Deh Dana	36	Qala-e-Shada
13	Deh Sabz	37	Qala-e-Wazir
14	Deh-e-Naw	38	Qolacha
15	Fazel Beg	39	Rahman Mina
16	Guzargah	40	Shah Shaheed
17	Hoodkhil	41	Shahr Naw
18	Jada-e-Maiwand	42	Shams Ali Agha
19	Jamal Mina	43	Shiwa Ki
20	Karte Mamurin	44	Shur Bazar
21	Karte Naw	45	Taimani
22	Karte Parwan	46	Tarakhil
23	Karte Sakhi	47	Wasil Abad
24	Khair Khana	48	Wazir Akbar Khan