

RELIGIOSITY AND INDIVIDUAL-LEVEL CORRUPTION: EXPERIMENTAL EVIDENCE FROM KENYA

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Abstract

This paper seeks to determine if people's religious affiliation matters in their propensity to act corruptly. Using a three-person one-shot sequential move corruption game, this paper finds that people internalize their religious beliefs to affect outcomes including acting corruptly. Consistent with findings by Flavin and Ledet (2010), this paper find Catholics to have a higher propensity to offer and accept bribes and be less likely to punish corruption culprits than protestants and muslims. This paper concludes that people's religious affiliation matters in the fight against corruption.

Keywords: Religiosity, Corruption, Game theory, Experiment

1.0 Introduction

There is an increasing body of literature that shows that one's religious beliefs impact on ones conduct and behavior (Flavin & Ledet, 2010). Using experimental methodology, this study sought to determine if one's religiosity impacts on one's willingness to offer or accept a bribe or punish those who engage in corruption.

The motivation for this paper is premised on a number of cross-country comparisons that have shown lower rates of corruption in countries with a higher percentage of the population that professes protestant Christian faith (see for example, Serra, 2006; Chang & Golden, 2004; Bonacich et al., 1976; Treisman, 2000). About 80% of the Kenya's population profess christian faith. Kenya is also ranked among the most corrupt countries in the world.

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With a Corruption Perception Index (CPI)² of 2.1, Transparency International ranked Kenya as the 154th least corrupt country out of 180 countries sampled (Transparency International, 2010). Biblical teachings are against corruption and bribes. For example, 1 Samuel 8:3 points to the fact that acceptance of a bribe perverts justice³. In Daniel 6:4, Daniel is commended for his trustworthiness and shunning of corruption⁴. This paper sought to determine if one's stated religious affiliation has an impact on whether an individual offers or accepts a bribe and whether the affiliation has an impact on one's decision to punish those who engage in bribery.

This paper uses a one-shot sequential move corruption game to determine if people's religious affiliation affects their propensity to act corruptly. The paper, consistent with findings in other research, found religious affiliation to matter. Specifically, a Catholic manager and a Catholic public official are more likely to offer and accept a bribe than their Protestant counterparts respectively. A Catholic citizen is less likely to punish corruption culprits than a Protestant citizen. This paper concludes that people's religious affiliations are internalized to affect individual decisions including acting corruptly.

Following this introduction, the rest of the paper is organized as follows: section 2 discusses the research methodology. Section 3 presents the results and the discussions while section 4 concludes the study.

2.0 Research methodology

Many studies on corruption including the well-established CPI by Transparency International have relied mainly on survey data. Questions abound on the reliability of the findings of such research. The questions emanate from doubts as to whether people truthfully report their involvement in corruption. Three general concerns regarding survey data based on behavioral questions have been raised, which relate to "hypothetical bias", "idealized persona bias" and "incentive compatibility" (Carpenter, 2002).

To illustrate hypothetical bias, consider the likely response to the question "Would you ever accept a bribe offered to you?" An individual's response to this question can only be

²Corruption Perception Index (CPI) combines information from different expert and business surveys on the perceived level of public-sector corruption in a country. The index ranges from 0 (most corrupt) to 10 (least corrupt).

³But his sons did not follow his ways. They turned aside after dishonest gain and accepted bribes and perverted justice.

⁴At this, the administrators and the satraps tried to find grounds for charges against Daniel in his conduct of government affairs, but they were unable to do so. They could find no **corruption** in him, because he was trustworthy and neither corrupt nor negligent

hypothetical and may not necessarily reflect what the individual would do if they were actually offered a bribe. The idealized persona bias can be illustrated by the response to the question "How many times in a week do you encounter situations in which a bribe is demanded from you?" A person answering this question may either respond on the basis of what he thinks the researcher wants to hear or in relation to the would like to be. The incentive compatibility issue with survey data arises from the fact that there is no incentive in survey research for the respondent to take the survey seriously (Bertrand & Mullainathan, 2001).

The challenges with studying corruption using surveys are compounded by the secrecy of corruption involvement because of its illegality. Experiments then become a natural alternative in studying corruption. Laboratory experiments offer the possibility to overcoming unobservability of corrupt activity by generating data from a bribery game while controlling the environment and the characteristics of the subjects involved (Roth, 1998). In an experiment, a subject is confronted by a non-trivial amount of money and his final payoff is solely dependent on his actions in the experiment. The monetary reward acts as an incentive for the subject to reveal his type. To show the different results obtained from surveys and experiments, a number of studies have compared "measure of trust" findings from both survey and experiments (see for example Glaeser et al., 2000; Burks et al., 2000; Ben-Ner & Puttermann, 1999). These studies find measures of trust from experiments to be largely uncorrelated with responses to survey questions designed to measure social capital. They find that respondents who indicate they are trusting do not exhibit this trust in an experiment with monetary stakes.

Similar discrepancies have emerged when findings from surveys and experiments on corruption are compared. Findings in two key surveys that show women to be less corrupt than men serve as a good example in this regard (see Dollar et al., 2001; Swamy et al., 2001). The findings of these two studies have been the basis for advocating the greater involvement of women in the public service. Most experiments on gender and corruption have, however, not found gender differences in corruption (see for example Alatas et al., 2009a; Armantier & Boly, 2008; Frank & Lambsdorff, 2008)⁵.

The difference in the findings may be attributed to the difference in what the two sets of studies were investigating. For example, in one of the surveys that Swamy et al. (2001)

⁵In contrast, other experimental studies have found gender differences in the propensity to act corruptly (see Rivas, 2008, and Schulze & Frank, 2003).

conducted, the researchers examined responses to hypothetical questions on whether one can be justified for accepting a bribe in the line of their work. A larger percentage of women (77.3%) than men (72.3%) supported the statement that "someone accepting a bribe in the course of their duties can never be justified". However, the fact that a respondent does not think that accepting a bribe is justifiable does not mean that they would not act corruptly offered an actual bribe.

There is obviously a need for being cautious in interpreting experimental findings and their general application because conditions in a laboratory differ from those in the real world with all its complexity. The second reason for the caution is the fact that experiments mainly draw their subjects from students who are not a representative of the general population. List (2006) and Levitt and List (2007) have suggested the incorporation of field experiments to complement laboratory experiment findings. On this front, the evidence in relation to corruption is encouraging. Armantier and Boly (2008) conducted a bribery game combining a lab experiment in Montreal and a field experiment in Burkina Faso. While the study did not find any difference with regard to subjects acting opportunistically in both the laboratory and field set up, increasing the bribe amount was found to exacerbate corruption in the field set up but not in the laboratory situation⁶.

This paper adopts experimental games as a research methodology, first because of the novelty of the methodology in the Kenyan context, and secondly because all studies on corruption in Kenya have been based on surveys. Thus, not only will this work contribute to the existing work on corruption but it will also make a significant contribution in the use of experimental methodology in the Kenyan context.

2.1 Corruption game with punishment

This experiment is adopted from Alatas et al. (2009a) and has been used in other studies (see for example Waithima, 2010; Alatas et al., 2009b; Cameron et al., 2009). The

⁶The experiment involved grading of exam papers where the 11th paper had some US\$ Bills and a message stating "Please find few mistakes in my exam paper". To distinguish between laboratory and field experiment, subjects in the laboratory set up were informed that they were involved in an experiment while those in the field set up were only made aware that they were in an experiment after they had graded the papers.

experiment engages three players in a one-shot⁷ sequential-move game. These players are a manager of a firm (potential bribe-giver), a public official (potential bribee) and a citizen (potential punisher). The citizen is adversely affected by a corrupt act that privately benefits both the bribe giver and the bribee. Conceptually, the game is modeled on the corruption deterrence game by Schulze and Frank (2003) which had three players; the briber, bribee and those harmed by the corruption. The set-up mimics a corruption scenario in which two people benefit from a corrupt transaction at the expense of a third party external to the corrupt transaction.

The manager faces the choice to initiate the bribery transaction by offering a bribe to the public official who makes a decision on whether to accept or reject the bribe. If the public official accepts the bribe, both the manager's and the public official's payoffs increase at the expense of the citizen. The citizen moves last to make a decision on whether or not to punish both the manager and the public official. The punishment is at a cost to the citizen but the punishment imposes a much bigger monetary cost to the manager and the public official. The experiment has two treatments; in one, subjects revealed their gender while in the other they revealed their surnames. The gender or the surnames of the trio in relevant treatments in each session are displayed on each of the three computer screens. Displaying of the gender or the surnames ensures that the choices that the subjects make in the game can be seen as being motivated by either the gender or the ethnic composition of the trio. The figure that follows shows the extensive form of the game.

⁷The one-shot nature of the game is meant to eliminate any potential economic incentive for the citizen to punish. It also helps to avoid issues associated with repeated games such as signaling, reputation formation and serial correlation in decisions (Alatas et al., 2009a)

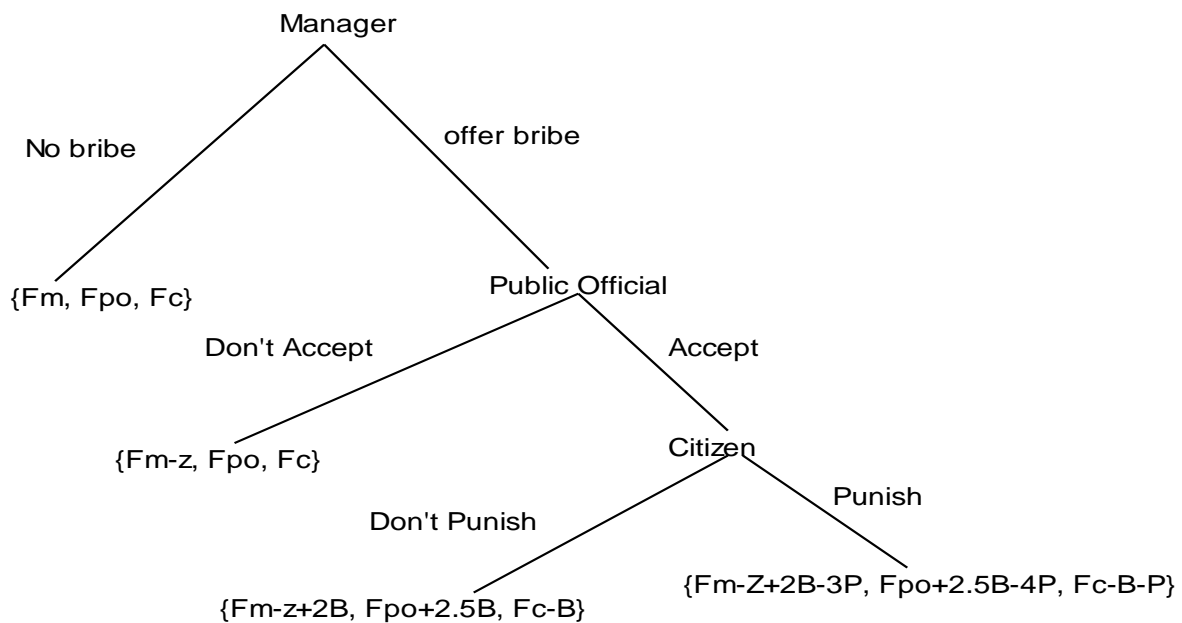


Figure 1: Extensive form of the game

F_M , F_{PO} and F_C are the initial endowments for the manager, public official and citizen respectively. Z is the cost that the manager incurs to establish a bribery relationship. The bribe is of an amount B which benefits the manager by $2B$ and the public official by $2.5B$; in addition, the bribe reduces the citizen's payoff by B . For the manager and the public official, their payoffs are increasing in the bribe amount. The bribe amount is $B \in [\underline{B}, \bar{B}]$ where \underline{B} and \bar{B} is respectively the minimum and maximum bribe amount allowable in the game if the manager chooses to offer a bribe. We assume that the citizen can observe the actions of the manager and the public official and has the option of punishing them or not. The punishment is valued at P , which reduces the manager's payoff by $3P$ and public official's payoff by $4P$. The punishment amount is $P \in [\underline{P}, \bar{P}]$, where \underline{P} and \bar{P} are respectively the minimum and maximum punishment amount allowable in the game. For the three players, their payoffs are decreasing in the punishment amount. If the citizen chooses to punish, the final payoffs are $F_M - Z + 2B - 3P$, $F_{PO} + 2.5B - 4P$ and $F_C - B - P$ for the manager, public official and the citizen respectively.

Since by choosing to punish, the citizen reduces his/her payoff by the punishment amount, the theoretical prediction of this game is that he chooses not to punish culprits of corruption. Knowing the unwillingness of the citizen to punish, the manager will propose the highest allowable bribe amount \bar{B} and the public official will accept it. Under the assumption

that all players are selfish and only care about their own monetary reward, the subgame perfect equilibrium payoffs are $F_M - Z + 2\bar{B}$, $F_{PO} + 2.5\bar{B}$ and $F_C - \bar{B}$ for the manager, public official and the citizen respectively. In this game, if the citizen chooses to punish, such a decision is motivated purely by his or her intolerance towards corruption supporting findings of the third party punishment games⁸. Likewise, a manager who does not propose a bribe and a public official who does not accept a bribe will be because of their ethical and moral persuasion about corruption. This paper explores if one's religious affiliation has an impact on the choice that each subject makes.

2.2 Game Procedure

Advertisements for the recruitment of potential subjects were made by placing fliers on university notice boards. Those interested signed on the notice boards and were contacted by research assistants by phone who explained what the research was about and the venue and date of the experiments. On the experiment day, subjects assembled in a hall where the procedure of the experiments was explained by the principal researcher. In the explanation no mention was made to the effect that the research was about corruption. Instead subjects were told that they were going to take part in a research about human behavior and strategic moves with monetary rewards. After the explanation which was followed by a question and answer session, the subjects were randomly assigned to three groups. Each group was directed to a lecture room in which there was a research assistant and a computer. It was the responsibility of the research assistant to direct each subject to the computer each at a time and ensured that there was no interaction between a subject playing the game and those waiting for their turns. A subject played with two other anonymous subjects in the other lecture rooms. The position that a subject took was randomly determined by how fast each logged into the system. Instead of using manager, public official and citizen, each subject was informed that they were player one, two or three. At the start of each session, the software administrator would at random assign an initial endowment combination for the trio. The move made by each was common knowledge since each move was displayed on the screens of the other two computers.

Player one was informed that he or she could enhance his or her payoff by transferring some tokens from his or her initial endowment to player two. He or she was informed that upon player two's acceptance, he or she would benefit by twice the transfer amount and

⁸ See Fehr & Gächter (2000) for a thorough exposition on third-party punishment games.

player two would benefit by two and a half times the transfer amount while player three’s payoff would be reduced by the transfer amount. Player two who observed every move that player one made was informed that upon accepting the transfer from player one, he or she would benefit by 2.5 times the transfer amount while player three’s payoff was going to reduce by the transfer amount. Both player one and two were informed that upon player one making a transfer and player two accepting, player three could decide to punish both of them and that a punishment of P amount would reduce player one’s payoff by 3 times while player two’s payoff would reduce by 4 times. Player three was able to observe the moves that player one and two made and was informed of the consequences that such moves would have on his or her payoff. Player three was informed that he or she had an option to punish both player one and two and the consequences that such punishment would have on each of the player’s payoff. Table 1 below shows payoffs for the three players at different scenario in the game.

Table 1: Initial endowment, bribe and punishment amounts

Combination	Initial endowment			Bribe Amount		Punishment Amount	
	Manager (Player One)	Public Official (Player Two)	Citizen (Player Three)	Minimum	Maximum	Minimum	Maximum
1	330	250	260	50	80	40	65
2	200	180	190	50	80	40	65
3	280	230	240	50	80	40	65
4	240	190	180	50	80	40	65
5	300	250	210	50	80	40	65
6	290	280	270	50	80	40	65
7	310	290	280	50	80	40	65
8	305	300	280	50	80	40	65
9	230	210	200	50	80	40	65
10	260	280	280	50	80	40	65

Note that initial endowment, bribe and punishment amount were set in such a way that no player would end up with zero or negative payoff.

Each session of the game ended with subjects filling in an electronic questionnaire after which they were directed to a waiting room in order to rule out interaction with those who were waiting for their turn to play the game. When all had played the game, each was informed of their final payoff in form of tokens which were converted into Kenya shillings and paid out. On average, each subject earned Ksh 290 (about 4 US\$) which was considered an adequate compensation for the three hours⁹ spent.

2.3 Subject pool

The experiments were conducted between October 2008 and May 2009 in various universities and colleges in Kenya. The universities and colleges¹⁰ were selected in order to take into account the geographic and demographic diversity of the Kenyan population. In total, 15 universities and colleges located in the eight provinces in Kenya took part in the experiments. Table 2 presents the regional location of the universities and colleges as well as the demographic attributes of the sample. While the majority of the universities and colleges are government-funded, a few are privately owned. Private universities attract students from wealthier families than government-sponsored ones. On average, 67 subjects in each centre took part in the experiments.

Table2: Demographic summary statistics of the subject pool

Aspect	Category	Number	Percent
Gender	Male	673	66.5
	Female	339	33.5
Age	18-30	972	96.0
	31-40	34	3.4
	41-50	6	0.6
Religion	Protestants	699	69.1
	Catholic	350	24.7
	Muslim	47	4.6
	Others	16	1.6
Ethnic group	Kikuyu	336	33.2

⁹ This is the average time spent in the whole exercise. The experiments were conducted mainly on weekends to ensure that universities' timetables were not disrupted.

¹⁰ In Kenya, there is a clear distinction between universities and colleges. While colleges offer diploma and certificate level programs, universities offer degree programs.

Kalenjin	142	14.0
Luhya	118	11.7
Kisii	108	10.7
Luo	117	11.6
Kamba	95	9.4
Others	96	9.5
<hr/>		
University/ College		
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Daystar Athi River	45	4.4
Egerton	64	7.3
Eldoret Polytechnic	69	6.8
KIA (Nairobi)	42	4.2
Maseno	60	5.9
MasindeMurilo	51	5.0
Kimathi Institute	63	6.2
Moi	93	9.2
KEMU	83	8.2
UON (Lower Kabete)	39	3.9
Daystar Nairobi	63	6.2
NEP Intitute	93	9.2
Mt. Kenya	90	8.9
Mombasa Polytechnic	66	6.5
Kabarak	81	8.0

Members of student governments in various universities and colleges as well posters placed on notice boards were used to recruit potential participants. Those who expressed interest in the experiments by signing up were contacted telephonically by a research assistant or the principal researcher encouraging them to participate in the experiment and to let their friends know about the experiments. They were also encouraged to raise whatever questions they might have about the experiments on the day of the experiments. A day before the experiments, those who had signed up were contacted telephonically to remind them of the experiments.

In most centres, about 75% of those who had indicated their willingness to participate showed up for the experiments. There were cases of students who had not signed up for the

experiments showing up on the day of the experiments. On the experiment day, the subjects gathered in a large hall. The principal researcher explained what the experiments were about and how they would be conducted. They were told that each subject would participate in two games. From the beginning, it was emphasized that there would not be any show-up payment and that each subject's final payment would be dependent on their actions in the two games they would take part in. After each subject had taken part in either the gender or the ethnicity treatment, they were directed to a waiting hall.

In total, 1012 students took part in the experiments. This number compares well with the 1326 subjects in the experiment of Alatas et al. (2009a). Of the 1012 students, 339 (33.5%) were women. This number is small compared to gender balance in Kenyan universities and colleges where women form almost half of the population. The low female turn out may be attributed to the fact that the experiments were advertised as requiring computer skills. This explanation is inferred from the numerous questions on the level of computer skills required for the experiments from the potential female participants contacted.

2.3.1 Subjects' attitudes and views on corruption in Kenya

At the end of each experiment, subjects were required to fill in an electronic questionnaire. A number of questions were designed to mainly elicit the subjects' attitudes and views on corruption in Kenya. Table 1 presents a summary of responses to some of the questions in the questionnaire. A high proportion of subjects (81.2%) indicated that corruption is a very serious problem in Kenya with a majority indicating that they encountered corruption cases several times in a week. On the question of where the subjects encountered corruption, evidently the majority of the subjects encountered corruption in government offices including police stations, hospitals and the offices of the provincial administration¹¹.

¹¹ Provincial administration is the lowest level of government that one interacts with most frequently especially for government licenses.

Table 1: Summary of subject views on the extent of corruption in Kenya

Question	Responses	Percent
How serious is corruption in Kenya?	There is no corruption problem in Kenya	0.9
	Moderately serious	17.9
	Very serious	81.2
How frequently do you encounter corruption cases?	Daily	28.8
	Once a month	14.8
	Once a week	8.6
	Several times a week	30.7
	Hardly	17.1
Where do you encounter corruption cases?	Police	32.7
	Immigration officials	7.3
	Tax officials	6.7
	Land office	4.9
	Place of worship	3.1
	Universities and schools	18.2
	Hospitals	8.1
	Provincial administration	15.9
Do you report corruption cases to the authorities?	Yes	12.9
	No	87.1
What is your justification for reporting or not reporting?	Government is not committed to fight corruption	30.1
	It is a waste of time	41.2
	Fear of victimization	21.2
	Authorities do a good job	7.6
Which among these are causes of corruption in Kenya?	Ethnic diversity	16.4
	Lack of government commitment to fight it	22.4
	Poverty	22.8
	Income inequality	38.4

A considerable proportion (18.2%) reported having encountered corruption in universities and schools. These findings are similar to those reported in Transparency

International's Kenya Bribery Index Report (Transparency International, 2009) which reported increasing levels of corruption in academic institutions.

An overwhelming majority of respondents (87.1%) indicated that they did not report corruption cases. The majority (41.2%) considered reporting a waste of time while 30.1% indicated the reason for not reporting corruption to be the lack of government commitment to deal with corruption. A sizeable proportion indicated fear of victimization to be the reason for not reporting (21.2%).

Many of the subjects (38.4%) cited income inequalities to be the main cause of corruption while 16.4% indicated ethnic diversity to be a major cause of corruption in Kenya. The lack of government commitment to deal with corruption was seen by 22.4% of the subjects as one of the causes of corruption in Kenya.

The views on corruption expressed by the subjects in this sample compares well with a survey conducted by Kibwana et al. (1996) in which 83.8% of the 555 respondents indicated that corruption is a very serious problem in Kenya. The respondents in Kibwana's study indicated the main causes of corruption to be ineffective laws and poor political leadership (67.7%) and poverty (15.7%). A sizeable proportion (22.2%) indicated that they would not consider reporting cases of corruption to the authorities with 78.8% indicating that the government had no commitment to fight corruption, and 44.4% of the respondents indicated ethnic affinity to be a factor in fuelling corruption.

The responses from the current sample, that of Kibwana et al. (1996) and various reports by Transparency International are a confirmation of how rife corruption is in Kenya.

The findings also confirm the loss of faith by Kenyans in the government's commitment to fighting corruption. It is indeed the lack of commitment by the Kenyan government that led to the resignation of and eventual flee from Kenya by the permanent secretary in charge of governance and ethics; John Githongo (Wrong, 2009).

3.0 Results

Result one: *Those affiliated to Catholicism are significantly more likely to offer a bribe than those affiliated to other faiths*

Compared to those affiliated to the Christian protestant and Islamic faiths, those affiliated to Catholicism are significantly more likely to offer a bribe. As Table 4 shows, 87.2% of the Catholics who played the role of a manager offered a bribe compared to 78.8% of the protestants 66.7% of the muslims. In both cases, the differences are significant at 8.6%

compared to protestants and 9.8% compared to muslims. Managers affiliated to Islamic faith are just as likely to offer a bribe as those affiliated to the protestant Christian faith.

Table 4: The proportion of managers offering a bribe based on religious affiliation

	Male	Female
	0.812	0.79
	[0.615]	
	Protestants	Catholics
	0.788	0.872
Proportion of the	[0.086]*	
managers offering a	Protestants	Muslims
bribe	0.788	0.667
	[0.388]	
	Catholics	Muslims
	0.872	0.667
	[0.098]*	

Figures in parenthesis are Z-values. * denotes significance at the 10% level

Result two: *There are no gender differences in the probability to offer a bribe*

As indicated in Table 4, male managers are just as likely to offer a bribe as their female counterparts. Introducing other factors that may have an impact on the probability to offer a bribe reveals that male managers are significantly more likely to offer a bribe than their female counterparts.

Result three: *There is no religious difference in the propensity to accept a bribe*

The decision to accept or reject a bribe by a public official is purely opportunistic and is not influenced by his or her religious affiliation. These comparisons are presented in Table 5. Column (2) of Table 7 shows that a Catholic public official is significantly more likely to accept corruption culprits than a protestant one. Female public officials are significantly more likely to accept a bribe than their male counterparts.

Table 5: The proportion of the public officials accepting a bribe based on religious affiliation

	Male	Female
	0.701	0.682
	[0.747]	
	Protestants	Catholics
	0.685	0.722
Proportion of the	[0.558]	
public officials	Protestants	Muslims
accepting a bribe	0.685	0.615
	[0.604]	
	Catholics	Muslims
	0.722	0.615
	[0.437]	

Figures in parenthesis are Z-values

In some earlier analysis of this data, the decision to accept or reject a bribe by the public officials was found to be driven by the initial endowment and the size of the bribe offered. Specifically, the analysis showed that the higher a public official's endowment, the more likely they were to reject a bribe (see Waithima, 2010a; Waithima, 2010b). Similar results are summarized in Table 7. Column (2) of Table 7 shows a negative relationship between the probability to accept a bribe and the size of the bribe and the endowment amount.

Result four: *There is no religious difference in the propensity to punish corruption culprits*

There is no religious group that is more likely to punish corruption culprits than the other. The comparisons are summarized in Table 6. Column (3) of Table 7 shows probit regression results on the probability of a citizen to punish corruption culprits. When other factors are taken into account, the results show that a Catholic citizen is significantly less likely to punish corruption culprits than a protestant citizen. A muslim citizen is also less likely to punish corruption culprits than a protestant one. Interestingly, the results show that a higher bribe will increase the probability of a citizen punishing corruption culprits. A female citizen is less likely to punish corruption culprits as compared to their male counterparts.

Table 6: The proportion of citizens willing to punish corruption

	Male	Female
	0.646	0.714
	[0.344]	
	Protestants	Catholics
	0.683	0.667
	[0.687]	
Proportion of citizens willing to punish corruption culprits	Protestants	Muslims
	0.683	0.667
	[0.917]	
	Catholics	Muslims
	0.649	0.667
	[0.919]	

Figures in parenthesis are Z-values

Table 7: Probit regressions on the probability of offering, accepting and punishing corruption culprits

	(1) Prob (offer)	(2) Prob (accept)	(3) Prob (punish)
Gender	0.021 [0.047]	0.012 [0.061]	-0.069 [0.072]
Bribe endowment	-	-0.112 [0.127]	0.119 [0.072]
Catholic	0.157 [0.128]	-0.241 [0.124]	-0.240 [0.214]
Muslim	0.088 [0.045]	0.039 [0.063]	-0.029 [0.089]
	-0.095 [0.152]	-0.061 [0.137]	-0.029 [0.166]
Number of observations	338	272	189

The coefficients are marginal effects and the figures in parentheses are standard errors. A protestant subject is used as the base in all the regressions.

4.0 Conclusion

Religious affiliation seems to matter in an individual's propensity to act corruptly. Specifically, a Catholic manager and public official is more likely to offer and accept a bribe than their protestant counterparts respectively. A Catholic citizen is less likely to punish

corruption culprits than a protestant citizen. This finding is consistent with the finding by Flavin and Ledet (2010) who find USA states with a higher proportion of the population professing Catholics to have higher levels of government corruption. This paper concludes that people's religious affiliation matters in the fight against corruption.

References:

- Alatas, V., Cameron, L., Chaudhuri, A., Erkal, N., & Gangadharan, L. (2009a). Gender and corruption: Insights from experimental analysis. *Southern Economic Journal*, 75 (3), 663-680.
- Alatas, V., Cameron, L., Chaudhuri, A., Erkal, N., & Gangadharan, L. (2009b). Subject pool effects in a corruption experiment: A comparison of Indonesian public servants and Indonesian students. *Experimental Economics*, 12, 113-132.
- Armantier, O., & Boly, A. (2008). Can corruption be studied in the lab? Comparing field and lab experiment. *Scientific Series* .
- Ben-Ner, A., & Puttermann, L. (1999). Reciprocity in a two part dictator game. *mimeo* .
- Bertrand, M., & Mullainathan, S. (2001). Do people mean what they say? Implications for subjective survey data. *American Review Papers and Proceedings*, 91, 67-72.
- Bonacich, P., Shure, G., Kahan, J., & Meeker, R. (1976). Cooperation and group size in the n-person prisoner's dilemma. *Journal of Conflict Resolution*, 20, 687-706.
- Burks, S., Carpenter, J., & Verhoogen, E. (2000). Playing both roles in the trust game: The golden rule and Machiavellian behavior. *mimeo* .
- Cameron, L., Chaudhuri, A., Erkal, N., & Gangadharan, L. (2009). Propensities to engage in and punish corrupt behaviour: Experimental evidence from Australia, India, Indonesia and Singapore. *Journal of Public Economics*, 93, 843-851.
- Carpenter, J. (2002). Measuring social capital: Adding field experimental methods to the analytical toolbox. In J. Isham, T. Kelly, & S. Ramaswamy, *Social Capital and Economic Development: Well-being in Developing Countries* (pp. 119-137). Edward Elgar Publishing Ltd.
- Chang, E., & Golden, M. (2004). Electoral systems, district magnitude and corruption. *Annual Meeting of American Political Science Association* .
- Dollar, D., Fisman, R., & Gatti, R. (2001). Are women really the "fairer" sex? Corruption and women in development. *Journal of Economic Behaviour and Organization*, 46 (4), 423-429.

- Fehr, E., & Gächter, S. (2000). Cooperation and punishment in public goods experiments. *American Economic Review*, 114 (3), 980-994.
- Flavin, P., & Ledet, R. (2010). Religiosity and government corruption in the American States. *University of Notre Dame Working Paper* .
- Frank, B., & Lambsdorff, J. (2008). Gender effects in laboratory corruption experiments. *Working paper* .
- Glaeser, E., Laibson, D., Scheinkman, J., & Scoutter, C. (2000). Measuring trust. *Quarterly Journal of Economics*, 115 (3), 811-846.
- Glaeser, E., Liabson, D., Scheinkman, J., & Soutter, B. (1999). What is social capital? The determinants of trust and trustworthiness. *NBER Working Paper No. 7216* .
- International, T. (2009). *Kenya Bribery Index 2008*. Transparency International.
- Kibwana, K., Akivanga, S., Mute, L., & Odhiambo, M. (1996). *The anatomy of corruption in Kenya: Legal, political and socio-economic perspectives*. Nairobi: Claripress Ltd.
- Levitt, S., & List, J. (2007). What do laboratory experiments measuring social preferences tell us about the real world? *Journal of Economic Perspectives*, 21 (2), 153-174.
- List, J. (2006). Field experiments: A bridge between lab and naturally occurring data. *Advances in Economic Analysis and Policy*, 6 (2).
- Rivas, F. (2008). An experiment on corruption and gender. *University of Granada working paper* .
- Roth, A. (1998). Laboratory experimentation in economics: A methodological overview. *The Economic Journal*, 98, 974-1031.
- Schulze, G., & Frank, B. (2003). Deterrence versus intrinsic motivation: Experimental evidence on the determinants of corruptibility. *Economics of Governance*, 4, 143-160.
- Serra, D. (2006). Empirical determinants of corruption: A sensitivity analysis. *Public Choice* , 225-256.
- Swamy, A., Knack, S., Lee, Y., & Azfar, O. (2001). Gender and corruption. *Journal of Development Economics* , 25-55.
- Transparency, I. (2010). *Corruption perception Index 2010*. Transparency International.
- Treisman, D. (2000). The causes of corruption: A cross-national study. *Journal of Public Economics* , 399-457.
- Waithima, A. (2010a). Does gender composition matter in corruption? In A. Waithima, *The role of gender, ethnicity and harambee in corruption: Experimental evidence from Kenya*. *Unpublished PhD Thesis* (pp. 29-57). Cape Town: University of Cape Town.

Waithima, A. (2010b). Ethnic heterogeneity and corruption. In A. Waithima, *The role of gender, ethnic and harambee in corruption: Experimental evidence from Kenya. Unpublished PhD Thesis* (pp. 58-83). Cape Town: University of Cape Town.

Waithima, A. (2010). The new anti-corruption Czars in Kenya: An experimental approach . In F. Miya, & P. Mageto, *Developing continuing education in Africa*. Nairobi: Daystar university.

Wrong, M. (2009). *It's our time to eat: The story of a Kenyan whistleblower*. London: Harpercollins Publishers.