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ABSTRACT

Previous studies have shown that reticent managers, who are identified through a series of random-response questions, answer questions about corruption, firm performance and how honest they are differently from other managers. If reticent managers' answers are different because they are lying, estimates of these behaviors will be inaccurate. But it is also possible that reticent managers answer questions differently because they and their firms are different. This paper presents evidence consistent with the idea that reticent managers lie. First, it shows that reticent managers in Nigeria report that their firms pay higher wages than other firms. This is consistent with previous studies that have found that they also report better performance. Second, it shows that workers at firms with reticent managers report lower, or similar, wages to workers at other firms. The different responses of the managers and the workers suggest that reticent managers are lying. That is, reticent managers in Nigeria report paying higher wages but they are not doing so.

I. Introduction

People often lie during surveys. Men report that they spend less time listening to soft rock and more time listening to classical music than people meters record that they do (Clausen and others, 2010). Similarly, when people with high-interest rates loans were asked during face-to-face interviews whether they had one, over half denied it (Karlan and Zinman, 2008). Other evidence suggests that respondents lie about many other things including whether they have had abortions, use alcohol, use birth control, have gastrointestinal problems and use illegal drugs (Tourangeau and Smith, 1996).

If deceitful respondents could be identified, it would be easier to accurately estimate how common sensitive behaviors are and to understand the causes and effects of these behaviors. Azfar and Murrell (2009) develop a way of identifying managers who do not answer certain questions truthfully. They do this using randomized questions. After the interviewer asks a sensitive question (for example on misuse of their position or tax evasion), the manager tosses a coin out of sight of the interviewer. If the manager tosses heads, they reply 'yes'. If they toss tails, they answer the question. Because managers should toss heads about half the time, they should answer yes to about half the questions even if they have never done any of the sensitive acts. In practice, they do not, suggesting that many answer 'no' even when the coin shows heads. Azfar and Murrell (2009) label managers with implausibly many 'no' answers as reticent.

Reticent managers who misreport the results of the coin tosses might also lie when answering other questions. Several studies have shown that reticent managers do answer other questions differently. They are less likely to report that bribes were requested or given (Azfar and Murrell, 2009; Clausen and others, 2010; Jensen and Rahman, 2011). They are more likely to say lying is never justified (Azfar and Murrell, 2009). They are more likely to claim their firm is ISO certified (Clausen and others, 2010). They are more likely to say their firm has invested recently (Jensen and Rahman, 2011). And they report that their firms are more productive than other managers do (Clarke, 2011).

The studies listed above argue that reticent managers answer these questions differently because they are either deliberately lying or unintentionally misreporting information. But this is not the only possible explanation for their different answers. Another possibility is that reticent

managers might answer questions differently because they run their firms differently from other managers.

For example, several studies have found that reticent managers are less likely to report paying bribes (Azfar and Murrell, 2009; Clausen and others, 2010; Jensen and Rahman, 2011). This might be because reticent managers lie about paying bribes. Or it might be that reticent managers are less likely to bribe government officials. That is, "the reticent might be less corrupt and more virtuous than average, even though the reticent…give a set of implausible answers on the randomized response questions" (Azfar and Murrell, 2009). Although giving false responses to the randomized response questions (i.e., not saying 'yes' when they toss heads) seems inconsistent with being virtuous, they might not see answering the sensitive question truthfully as 'lying'. That is, if they think the randomized response questions protect the guilty, they might think that answering the sensitive question truthfully is better than hiding behind a coin toss.

Similarly reticent managers in Nigeria reported that their firms were more productive than other managers did (Clarke, 2011). This could be because reticent managers lie about firm performance. Or it could be because they are better managers and therefore the firms they manage perform better. For example, if reticent managers are more virtuous—and their suppliers and customers see this—they might find it easier to negotiate and agree to contracts. Being virtuous might be especially useful when contracts are incomplete and a weak institutional environment makes it difficult to enforce them.

This paper uses data from the World Bank's *Enterprise Surveys* for Nigeria to try to see whether reticent managers lie or whether they just behave differently than non-reticent managers. As noted above, Clarke (2011) finds that reticent managers in Nigeria report their firms are more productive than other managers do and argues that this is because they lie about firm performance. If reticent managers exaggerate performance, they might also exaggerate wages. But they might report higher wages because they do pay more. That is, if firms with reticent managers outperform other firms, they might pay their workers more because their workers are more productive or because their workers capture some of the excess profits.

In this paper we show that reticent managers in Nigeria report paying higher wages than other managers do. We then compare managers' responses about wages with workers' responses at the same firms. If reticent managers report wages truthfully, then workers in firms with reticent managers should also, on average, report being paid more. If, in contrast, the reticent managers are lying, workers in firms with reticent managers should not report higher wages.

Although reticent managers report that their firms pay more than other managers do, workers report lower or similar wages. This strongly suggests that reticent managers are lying about wages. It also suggests that other differences between firms with reticent managers and other firms might be because reticent managers lie about these other differences as well.

II. Data

The data used in this paper comes from the World Bank's 2007 and 2009 *Enterprise Surveys* for Nigeria. The surveys covered manufacturing (group D based upon ISIC 3.1), construction (group F); retail and wholesale trade (sub-groups 52 and 51 of group G); hotels and restaurants (group H); transport, storage, and communications (group I); and computer and related activities (sub-group 72 of group K).[1] The firms are mostly small and medium-sized formal firms. We use these surveys because they are the only *Enterprise Surveys* that include reticence data.

As well as interviewing managers, the surveys also asked workers questions on wages, education and experience, and other worker characteristics. Since the workers reported their wages independently, we can compare their answers with their managers' answers. This is useful because the manager's reticence should not affect workers' responses. That is, although reticent managers might misreport wages levels, the manager's reticence is less likely to affect workers' responses.

[1] See Iarossi (2009) and Iarossi and Clarke (2011) for details on the 2007 and 2009 surveys respectively.

Identifying reticent managers

We identify reticent managers—managers that are reluctant or unwilling to answer questions—using the method developed by Azfar and Murrell (2009).[2] They identify reticent managers by looking at their responses to a series of random response questions (see Table 1). The interviewer asks the manager a sensitive question (for example, on tax evasion or misuse of power) and then asks them to toss a coin out of sight of the interviewer. If the coin shows heads, the respondent answers 'yes'. If it shows tails, the manager answers the question.

Random response procedures were developed to encourage people to answer sensitive questions truthfully.[3] If the manager answers 'yes' no one other than the manager, not even the interviewer, knows whether the manager is saying that they committed the sensitive act or just that the coin showed heads.

Although randomized questions reduce underreporting, it remains a serious problem.[4] That is, even when the respondent knows the interviewer will not know whether they are answering 'yes' because the coin showed heads or because they have done the activity, they still underreport sensitive behavior. Azfar and Murrell (2009) note that with randomized responses no more than half of respondents should answer 'no' to the sensitive questions. That is, even if no one has committed the sensitive act, the coin should show heads half the time. If some people have committed the act, less than half should answer 'no'. Azfar and Murrell (2009) and Clausen and others (2010), however, find an implausible number of 'no' answers. They argue that some people whose coin comes up 'heads' must be answering 'no' anyway.

Table 2 shows the expected distribution of 'no' responses if no one had done any of the sensitive behaviors, the expected distribution if 30 percent of respondents had done each behavior, and the true distribution of 'no' answers. Even if no one had committed any of the

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[2] The same approach has been used by Clarke (2011), Clausen and others (2010), and Jensen and Rahman (2011). The description relies heavily on the descriptions in Azfar and Murrell (2009) and Clausen and others (2010). See those papers for more detail.

[3] See Fox and Tracy (1986) for a general discussion or Recanatini and others (2000) for a discussion that is directly linked to the Enterprise Surveys. A related technique is list randomization where survey respondents are asked to report how many sensitive statements in a given list are true. Karlan and Zinman (2012) used list randomization in a study looking at use of loans by microenterprises.

[4] Lensvelt-Mulders and others (2005) suggests that it reduces underreporting from about 45 percent to 38 percent.

sensitive behaviors (i.e., everyone is an 'angel'), too many people answered no six and seven times and too few people answered no 1 or 2 times.

This assumption, however, is unlikely to hold. Elsewhere on the survey, close to three quarters of managers said that they thought that typical firms in their sector underreported sales to the tax authorities. Since one randomized question asks whether the manager ever paid less business taxes than they should have, it seems unlikely that no one has ever underreported taxes.

If 30 percent of people have done each sensitive behavior, the distribution is even more skewed. That is, more people who responded 'no' four, five, six or seven times and less people who responded 'no' zero, one, two or three times than would be expected. The distribution would be more skewed if sensitive behaviors were more common than this.

Reticence does not appear to be an all-or-nothing behavior. That is, we see too many people responding no five and six times as well as too many responding no seven times. Because of this, we use a measure that allows for 'more' or 'less' reticence rather than an simple measure that assumes the person is reticent if they respond 'no' seven times and non-reticent otherwise. The measure we use is the number of no responses, with more no responses suggesting greater reticence.

III. Econometric Analysis

Econometric Methodology

For the firm-level regressions, the dependent variables are the log of average monthly wages for skilled and unskilled workers as reported by the manager of firm j in sector k. The main variable of interest is the variable representing whether the manager is reticent. As discussed above, this is the number of no responses to the random response questions. Managers that respond 'no' more frequently are more reticent than other managers.

$$Log\left(wages_{ijk}\right) = \alpha + \beta\, reticence_{jk} + \theta\, F_{jk} + \gamma_k + \varepsilon_{jk}$$

The regression also includes a series of sector dummies (γ_k), which allows wages to differ across sectors, and a series of firm- and manager-level control variables (F_{jk}). The firm-level controls include: the natural log of the number of workers, representing firm size; the natural log of the age of the firm in years; a dummy variable representing whether the firm exports; a

dummy variable indicating whether the firm is foreign-owned; a variable representing the percent of workers that belong to a union and a dummy variable indicating that the firm is in the south of Nigeria. The manager-level control include: a dummy variable indicating that the manager is male; a series of dummy variables indicating the age of the manager; and a series of dummies indicating the manager's educational attainment.

For the worker-level regressions, the dependent variable is the log of monthly earnings for worker *i* in firm *j* in sector *k*.

$$Log\left(wages_{ijk}\right) = \alpha + \beta\, reticence_{jk} + \theta\, F_{jk} + \gamma_k + \delta H_{ijk} + \varepsilon_{ijk}$$

The main variable of interest is the reticence variable, which represents whether the manager of firm j in sector k is reticent. We do not have any information on whether the worker is reticent or not. The regressions also include the firm-level controls (F_{jk}) and sector dummies (γ_k) included in the firm-level regressions.[5] These are included to control for the possibility that firm characteristics affect workers' wages even after controlling for worker characteristics.

Following Mincer (1974), we also include a set of variables representing characteristics of the worker. These include the years of experience that the worker has, the years of education the worker has, a dummy variable indicating gender, a dummy variable indicating that the worker is in a union, a continuous variable representing hours worked, and a series of dummies indicating whether the worker is a professional, a skilled production worker, an unskilled production worker, a non-production worker, or a manager. Standard errors are clustered at the firm-level to allow for unobserved firm characteristics that might affect wages for all workers at each firm.[6]

Measurement error is a concern because managers that randomly toss long sequences of heads will be mistakenly labeled as reticent. Because measurement error biases OLS coefficients towards zero, it would be useful to use 2SLS. This would also reduce concern about reverse causation. Although reticent managers might lie about wages, firm performance might also affect reticence. For example, managers of better performing firms might be concerned about

[5] Sector dummies are listed in the footnote to Table 3.

[6] See Moulton (1986).

attracting unwanted attention from the tax authorities of corrupt bureaucrats and so be more cautious when answering sensitive questions. If better performing firms also pay higher wages, this could result in a spurious correlation between wages and reticence.

To use 2SLS we need to find something that affects reticence but not performance or wages. Although some types of manager might be more reticent than others (e.g., better educated or older managers), these managers might also do other things differently in ways that affect performance. We therefore focus on characteristics of the interviewer rather than characteristics of the manager.

When the manager and interviewer interact well, the manager might become less reticent. Although interview quality depends on the manager, it also depends on the interviewer.[7] Because we can identify all firms interviewed by each interviewer, we can make interviewer-level measures of reticence (that is, average reticence of other managers interviewed by the same interviewer). The instrument is the average number of 'no' responses from other firms interviewed by the same interviewer omitting the manager's own responses. If better interviewers consistently get more truthful answers, the leave-one-out average should be correlated with the manager's own reticence. In the first stage regression, the coefficient on the leave-one-out average is positive and statistically significant suggesting that this is the case.[8] Because the leave-one-out average omits the manager's own responses, it should reflect characteristics of the interviewer rather than the manager or firm.

Econometric results from firm-level analysis.

Table 3 shows the results from the firm-level regressions. The main variable of interest is the variable representing reticence. The coefficients on this variable are positive and statistically significant in the OLS regressions for skilled and unskilled worker wages. This indicates that managers who are more reticent (i.e., who answer no to more questions) report paying higher

[7] Iarossi (2006, p. 157), for example, notes "respondents are more willing to comply with requests from people who are similar to them, people who praise them, people who are familiar to them, and people with whom they like to be associated."

[8] The F-stat for the leave-one-out average is 217.19 in the regression for skilled workers and 191.7 in the regression for unskilled workers.

wages to both skilled and unskilled workers. An additional no increases reported wages by about 1 percent for both types of worker.

The coefficients are larger and more highly statistically significant in the 2SLS regressions. Based on the coefficients from these regressions, an additional no response increases reported wages by about 13-14 percent. The large coefficient in the 2SLS regression is consistent with measurement error biasing the coefficient towards zero. It is also consistent with the possibility that managers whose firms pay low wages are more reticent than other managers. If poor firm performance increases reticence and results in low wages, the OLS coefficient might be biased towards zero.

There are at least two possible explanations for the positive coefficient on reticence. One is that reticent managers pay their workers more than other managers. If reticent managers are better managers, for example, then labor productivity and wages might be higher in firms that they manage. Another possibility is that reticent managers exaggerate, perhaps to make themselves or their firm look better.

The other coefficients are mostly consistent with expectations and are not affected significantly when using 2SLS to control for measurement error and the potential for endogeneity. Large firms pay higher wages than smaller firms. This is consistent with the observation that labor productivity is higher in large firms in Nigeria than in small firms (Iarossi and Clarke, 2011). Firms with unionized workers and older firms also pay higher wages. Firms with better educated and more experienced managers—using age as a proxy for experience—also pay higher wages than other firms.

Econometric results from worker-level analysis.

As well as interviewing firm managers, workers were interviewed at some firms. This provides a useful check on the managers' responses since we would expect the manager's reticence to have little effect on the workers' responses.

We therefore include the reticence variable in worker-level regressions. In the first regression, we only control for worker characteristics and sector of operations, in the second we also control for the type of work. In the final regression, we include firm-level characteristics similar to the ones in Table 3.

Table 4 shows the main results. The main variable of interest is the variable representing the manager's (not the worker's) reticence. In contrast to the previous results, the coefficient is negative—indicating that workers report lower, not higher, wages when they work for firms with reticent managers. It is, however, statistically insignificant at conventional significance levels. The results are similar when we use a 2SLS procedure to control for endogeneity and measurement error.

The other results are mostly consistent with expectations. Workers with more experience and education are paid more, women are paid less, and union workers are paid more. Managers and professional workers are also paid more all else equal. The coefficients on the firm-level variables are also mostly consistent with the results in Table 3. In particular, larger firms, older firms and firms with better educated and more experienced managers pay more.

IV. Conclusions

Reticent managers in Nigeria report they pay their workers more than other managers do. The results in this paper, however, suggest that they do not. When asked about wages, workers at firms with reticent managers do not report being paid more. The different responses of workers and managers suggest that reticent managers over-report wages.

Over thirteen percent of Nigerian managers answered 'no' to all seven questions.[9] Because many managers who answered 'no' five or six times might also be reticent, this suggests that about 20 to 30 percent of Nigerian managers are reticent. Because an extra 'no' response raises reported wages by 14 percent, this suggests the raw data might significantly overstate wages in Nigeria.

Reticence could also affect estimates of other behaviors. Clausen and others (2010) find that reticent managers in Nigeria are less likely to report that they pay bribes and more likely to report that their firms are ISO certified. Clarke (2011) finds that reticent managers in Nigeria report that their firms are more productive than other managers. Other studies have found that reticent managers in other countries are more likely to report that they are honest and are that they have recently invested (Azfar and Murrell, 2009; Jensen and Rahman, 2011). If they lie

[9] As noted above, even if no manager had done any of the sensitive acts, less than one percent of managers should answer no to all questions.

about these behaviors, these will also be mismeasured. If reticence varies across countries, cross-country comparisons will be difficult. And it will be difficult to assess how these behaviors affect each other without controlling for reticence.

The results have implications for survey design. First, they suggest that it would be useful to collect information on reticence more consistently. Measures of reticence will serve as useful controls in regressions for firm performance, corruption and other sensitive behaviors. Second, because reticence partly depends on the interviewer it is useful to allow researchers to identify the interviewers involved in each interview (that is, provide interviewer numbers).

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VI. Tables

Table 1: Sensitive questions used to identify reticent respondents

Question	Random response questions
1	Have you ever paid less in personal taxes than you should have under the law?
2	Have you ever paid less in business taxes than you should have under the law?
3	Have you ever made a misstatement on a job application?
	Have you ever used the office telephone for personal businesses?
4	Have you ever inappropriately promoted an employee for personal reasons?
5	Have you ever deliberately not given your suppliers or clients what was due to them?
	Have you ever lied in your self-interest?
6	Have you ever inappropriately hired a staff member for personal reasons?
	Have you ever been purposely late for work?
7	Have you ever unfairly dismissed an employee for personal reasons

Source: Questionnaire for World Bank's Enterprise Survey for Nigeria (2007 and 2009).
Note: The three bolded questions are less sensitive questions that were included to allow sophisticated reticent respondents to not have to give large numbers of 'no's' consecutively if they realized that this would be very unlikely

Table 2: Expected and actual distribution of 'no' responses

Number of No Responses	Expected if all are angels	Expected % if 30% have done each behavior	Actual % of respondents in survey
7	0.8%	0.1%	13.3%
6	5.5%	0.8%	8.8%
5	16.4%	4.7%	14.0%
4	27.3%	14.4%	23.0%
3	27.3%	26.8%	22.3%
2	16.4%	29.8%	13.7%
1	5.5%	18.5%	3.7%
0	0.8%	4.9%	1.2%

Source: Author's calculation based upon data from the World Bank's Enterprise Survey for Nigeria (2007 and 2009).
Note: Counts are unweighted. The 'angels' assumption assumes that no one has done any sensitive behavior. The '30% assumption' assumes 30 percent of respondents actually have done each sensitive behavior.

Table 3: Firm-level wage regressions with manager reporting wages for skilled and unskilled workers

Column	(1)	(2)	(3)	(4)
Dependent Variable	***Log of Monthly Wages for Skilled Workers***		***Log of monthly wages for unskilled workers***	
Estimation Technique	OLS	2SLS	OLS	2SLS
Observations	1,957	1,949	1,970	1,962
Sector Dummies	Yes	Yes	Yes	Yes
Reticence				
Number of no responses	0.013**	0.134***	0.012**	0.135***
[high numbers mean more reticent]	(2.06)	(6.38)	(2.01)	(6.40)
Firm Characteristics				
Number of workers	0.157***	0.156***	0.158***	0.157***
[Natural log]	(9.94)	(9.12)	(9.95)	(9.10)
Age of firm	0.037**	0.039**	0.035**	0.037**
[Natural log]	(2.26)	(2.17)	(2.13)	(2.08)
Firm exports	0.051	0.114	0.030	0.093
[Dummy]	(0.59)	(1.21)	(0.35)	(0.98)
Firm is foreign-owned	0.061	0.107	0.059	0.107
[Dummy]	(0.34)	(0.55)	(0.33)	(0.55)
Percent of firm that is unionized	0.001***	0.001**	0.002***	0.001***
[Dummy]	(2.98)	(2.32)	(3.29)	(2.59)
Firm is located in South	-0.048**	-0.119***	-0.043*	-0.114***
[Dummy]	(-2.18)	(-4.45)	(-1.92)	(-4.24)
Manager characteristics [a]				
Manager is male	0.053	0.047	0.056	0.050
[Dummy]	(1.46)	(1.21)	(1.54)	(1.27)
Manager is 30 or younger	-0.138***	-0.118**	-0.137***	-0.115**
[Dummy]	(-2.91)	(-2.28)	(-2.87)	(-2.22)
Manager is between 31 and 45	-0.128***	-0.101**	-0.126***	-0.097**
[Dummy]	(-3.19)	(-2.30)	(-3.12)	(-2.20)
Manager is between 46 and 55	-0.047	-0.049	-0.032	-0.033
[Dummy]	(-1.13)	(-1.08)	(-0.77)	(-0.74)
Manager has secondary education	0.082***	0.070**	0.083***	0.071**
[Dummy]	(2.94)	(2.30)	(2.97)	(2.34)
Manager has tertiary education	0.174***	0.165***	0.181***	0.172***
[Dummy]	(4.81)	(4.19)	(4.98)	(4.33)
R-Squared	0.141		0.147	

Source: Author's calculation based upon data from the World Bank's Enterprise Survey for Nigeria (2007 and 2009)

[a] Omitted age category is 56 and older. Omitted education category is primary ***, **, * Statistically Significant at 1%, 5% and 10% significance levels

Note: T-statistics in parentheses. Sector dummies are included for: garment manufacturers; textile manufacturers; food and beverage manufacturers; chemical and pharmaceutical manufacturers; construction material manufacturers; furniture and wood manufacturers; metal and metal product manufacturers; paper, printing and publishing manufacturers; plastic manufacturers; electric equipment manufacturers; motor vehicle manufacturers; other manufacturing; retail and wholesale trade; hotels and restaurants; construction; transportation; and other services.

Table 4: Worker level wage regressions with worker reporting wages

Column	1	2	3	4	5	6
Estimation Technique		OLS			2SLS	
Observations	5140	5061	4708	5113	5034	4681
Sector Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Reticence						
Number of no responses	-0.012	-0.005	-0.001	-0.048	-0.050	-0.032
[high numbers mean more likely to be reticent]	(-0.90)	(-0.36)	(-0.05)	(-1.19)	(-1.21)	(-0.80)
Worker Characteristics						
Experience	0.030***	0.025***	0.019***	0.029***	0.024***	0.018***
[years]	(6.12)	(5.22)	(4.01)	(5.87)	(5.00)	(3.84)
Education	0.041***	0.030***	0.022***	0.040***	0.029***	0.022***
[years]	(6.72)	(4.95)	(3.78)	(6.65)	(4.90)	(3.73)
Female worker	-0.106***	-0.097**	-0.095**	-0.105***	-0.100***	-0.104***
[Dummy]	(-2.79)	(-2.54)	(-2.50)	(-2.78)	(-2.61)	(-2.69)
Union worker	0.514***	0.472***	0.307***	0.513***	0.469***	0.309***
[Dummy]	(8.18)	(7.46)	(4.63)	(8.01)	(7.25)	(4.67)
Annual hours worked	-0.222	-0.195	-0.102	-0.203	-0.173	-0.076
[Natural log]	(-1.57)	(-1.37)	(-0.72)	(-1.40)	(-1.17)	(-0.53)
Interviewed in 2007	-0.267***	-0.294***	-0.235***	-0.271***	-0.299***	-0.243***
[Dummy]	(-5.70)	(-6.35)	(-4.53)	(-5.76)	(-6.42)	(-4.64)
Professional		0.233	0.086		0.243	0.092
[Dummy]		(1.55)	(0.55)		(1.62)	(0.59)
Skilled worker		-0.187**	-0.247***		-0.195**	-0.246***
[Dummy]		(-2.14)	(-2.95)		(-2.19)	(-2.91)
Unskilled production worker		-0.379***	-0.435***		-0.376***	-0.425***
[Dummy]		(-4.13)	(-4.85)		(-4.07)	(-4.73)
Non-production worker		-0.448***	-0.571***		-0.439***	-0.551***
[Dummy]		(-4.56)	(-5.79)		(-4.41)	(-5.50)
Firm Characteristics						
Number of workers			0.120***			0.123***
[Natural log]			(3.40)			(3.49)
Age of firm			0.066*			0.061*
[Natural log]			(1.93)			(1.73)
Firm exports			-0.086			-0.089
[Dummy]			(-0.76)			(-0.77)
Firm is foreign-owned			0.479*			0.460*
[Dummy]			(1.83)			(1.65)
Percent of firm that is unionized			0.001			0.001
[Dummy]			(0.84)			(0.74)
Firm located in the South			-0.135***			-0.119**
[Dummy]			(-2.93)			(-2.45)
Manager characteristics						
Manager is 30 or younger			-0.184**			-0.193**
[Dummy]			(-2.09)			(-2.13)
Manager is between 31 and 45			-0.133*			-0.147**
[Dummy]			(-1.89)			(-1.96)
Manager is between 46 and 55			0.047			0.049
[Dummy]			(0.69)			(0.72)
Manager has secondary education			0.000			0.005
[Dummy]			(0.00)			(0.10)
Manager has tertiary education			0.132*			0.140**
[Dummy]			(1.88)			(2.01)
R-squared	0.22	0.27	0.53	0.21	0.25	0.51

Source: Author's calculation based upon data from the World Bank's Enterprise Survey for Nigeria (2007 and 2009)
***, **, * Statistically Significant at 1%, 5% and 10% significance levels
Note: T-statistics in parentheses. See Table 3 for more details