The Impact of Corruption on Firm Performance: Evidence from Pakistan

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Abstract
The purpose of this study is to investigate the impact of bribery on firm performance and provides quantitative estimates of the impact of corruption on the performance of the firm. Impact of bribery is checked through the questionnaire which is distributed among 100 respondents. In theoretical framework, firm performance is dependent variable and bribery is independent variable. The correlation between firm performance and bribery which is measure in obtaining more government contracts in questioner and bribery which is measure as cost of obtaining the contracts is (r = -0.8012) having negative association between them. The size value of correlation is (r = -0.0074 & -0.0056) showing that the size is not important in bribery and have subsequently have no affect on firm performance. The value of R-Square in table 2 is close to 0.649 which indicate very well fit to data. It means that almost 65 % change is due to the response variable (bribery). F-test value is very significant in both table showing that the model is best fitted with the data. Sample size is one of the study limitation which could be removed in future research by enlarging sample size.

Keywords: Corruption. Bribery. Firm performance. Economic growth. Government contracts

1. Introduction
Corruption is increasingly making negative impact on firm performance and economic aspects of economies, especially in emerging economies and democratic countries of the world. Many organizations are examining the source and the solution for the corruption. The World Bank identified that corruption is a one of the greatest obstacle of firm performance and social development. Corruption in fact distorting the legal system of the country and in result weakens the foundation of institutions on which the firm performance depending a lot. International monetary fund states corruption is economic in nature because it directly effects the economic structure of the economy for example the bad governance clearly disturbs the economic activity and firm performance and corporate structure of the organizations of the world. The World Bank and international monetary fund support the anti-corruption program me in the member countries and organizing seminars and conferences and making publications to acknowledge the importance of anti-corruption activities. Although these organizations suggest that corruption effects the firm performance but the financial analysts also consider the results of empirical studies which shows the mixed results so here in this study careful review of theoretical and empirical studies so that causal effect of corruption on firm performance can be checked by survey instrument (questionnaire) which is adopted from Indonesia Corruption Perception Index 2008 and Bribery Index. The estimation of corruption on firm performance could only be more valid if data is for long span of time for the reason that in short run corruption may promote firm performance according to some theoretical studies.

One of the indicators or function of corruption is the government failure itself. In the long run corruption has deter mental effects on firm performance. While making the policies the long-term effect is given more consideration than short-term effect of corruption on performance. Theoretically, the literature has counter arguments about the corruption and performance of the firm. Some researchers suggest that corruption might be desirable (Leff, 1964; Huntington, 1968; Acemoglu and Verdier, 1998). Corruption works like piece-rate pay for bureaucrats, which induces a more efficient provision of government services, and it, provides a leeway for entrepreneurs to bypass inefficient regulations. From this perspective, corruption acts as a lubricant that smooths operations and, hence, raises the efficiency of firm performance. On the other hand, corruption tends to hurt innovative activities because innovators need government-supplied goods, such as permits and import quotas, more than established producers do. Demand for these goods is high and inelastic; hence, they become primary targets of corruption. Moreover, innovators have no established lobbies and connections so that they are subject to particularly heavy bribes and expropriations.

2. Literature review
In the past studies there is significant body of literature that shows empirical relation among corruption and performance of the firms. Foundation for this provided by Mauro (1995) by using corruption index and growth rate for per capita income from 1960 to 1985, same variables are also used by Summers and Heston in 1988. According to Mauro decrease in one-standard diviation increases the annual growth rate of GDP per capita at 8 % per year these results are based on simple regression without considering the control variables. Long term economic growth rate of per capita real GDP during 1970 to 1985 is measured by Mo (2001). Mo uses the
regression taking data from Transparency Internationals corruption index but he included the control variables he got marginal effect of variables on corruption by running three separate regressions and defines the total effect of corruption by summing up the three marginal effects of transmission variables. This method of using marginal variables shows that 1 unit increase in corruption decreases the growth rate at 0.545 % points. However the validity of instrument is not properly checked because the direct effect of corruption on growth by controlling the variables the results are insignificant in both OLS and 2SLS estimations. In a recent study same method used by Pellegrini and Gerlagh (2004) applies the same method suggested by Mo (2001) but the time span is long for measuring firm performance from 1975 to 1996 and shows transmission channel of trade policies and consider the endogenity problem. The valid instrumental variable passes through Hausman test their conclusion is similar to Mo (2001) because transmission variables are significantly influenced by the level of corruption. However (Pellegrini and Gerlagh 2004) shows that corruption has a significantly negative effect on firm performance and this negative effect become insignificant in a 2SLS regression one thing which is notable that with all control variables the direct effect of corruption is insignificant in both regressions and even it shows the positive effect in 2SLS regression. Two other relevant studies don't rely on the decomposition method and run the standard OLS regression by considering the control variables but without considering the instrumental variables.

Rock and Bonnett (2004) also check robustness of conventional argument which is negative effect of corruption on growth and investment. Even by considering 4 corruption indices there are a same result that shows negative impact of corruption firm performance and economics growth but the specification of model is very important for these effects (Rock and Bonnett (2004). They show that corruption in large East Asian economies likewise China, Indonesia, Japan, Thailand, Korea are significantly promotes firm performance. Abed and Davoodi (2002) also run a standard multivariate regression. They use panel and cross-sectional data for 25 countries over the period 1994–98, and examine the roles of corruption in transition economies. Compared with other studies, their study uses data with a much shorter time span. The results (Abed and Davoodi 2004) show that higher growth is associated with lower corruption in both panel and cross-sectional regressions and denoted significance at one per cent level. But this effect is insignificant with panel data when their structural reform index, which may in part measure the degree of government failure, is included. From the empirical studies the results are of mixed nature because the some present the unbiased estimates while some presents biased the reasons behind this mixed type of results is in fact the possible methodological problems.

3. Theoretical framework

In this study, the theoretical model is composed of bribery as independent variable and firm performance as dependent variable. The bribery is the cost of purchasing government contracts or simply the involuntary tax paid by the firms to government officials for purchasing different contracts. Performance of firms depending upon the economic activities they undertake so its very obvious for the firms to purchase the contracts and previous study reveal that the firms that have higher approach to government officials win the most of the contracts from the competing firms and hence these firms increase their market share and have good repute and optimum level of performance. Figure 1 shows the theoretical framework of bribery and firm performance. In this theoretical model there are two basic hypotheses. H1: cost of purchasing government contracts have positive effect on the number of contract firm achieved and second hypotheses is H2: cost of purchasing government contracts has negative effect on number of government contracts.

Fig1. Impact of bribery on firm performance in Pakistan

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bribery</strong></td>
<td><strong>Firm performance</strong></td>
</tr>
<tr>
<td>Cost of purchasing</td>
<td>Number of</td>
</tr>
<tr>
<td>Government contracts</td>
<td>Government contracts</td>
</tr>
</tbody>
</table>

4. Methodology

The research philosophy in this research is positivist and the approach is the deductive because the author deduces from previous studies the practical situation of different countries of the world about bribery and firm performance and developing the deductive statement about the relation of firm performance and bribery. Research strategy is survey and time horizon is cross-sectional and for survey purpose the instrument used is questionnaire which is adopted from Indonesia Corruption Perception Index 2008 and Bribery Index. The initial
sample is 100 university graduates from four different universities of Islamabad namely Allama Iqbal open university, Islamic international university, Bharia University Islamabad and Institute of Cost and Management Accountants of Pakistan. The questionnaire is designed in licked scale.

**Correlation Analysis**

Table 1 shows the correlation analysis between firm performance and bribery. It shows that there is negative significant correlated of firm performance with bribery. The correlation between firm performance which is measure in obtaining more government contracts in questioner and bribery which is measure as cost of obtaining the contracts is \( r = -0.8012 \) having negative association between them. The size value of correlation is \( r = -0.0074 \) & \( -0.0056 \) showing that the size is not important in bribery and have subsequently have no affect on firm performance. The correlation result if this study is supported by (Jessie Qi Zhou & Mike W. Peng 2011). Their finding suggest that there is a significant negative effect of bribery on firm performance.

**Table 1 showing Pearson Correlation**

<table>
<thead>
<tr>
<th></th>
<th>Firm Performance*</th>
<th>Bribery**</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm performance*</td>
<td>1.000</td>
<td>-0.8012</td>
<td>-0.0074</td>
</tr>
<tr>
<td>Bribery**</td>
<td>-0.8012</td>
<td>1.000</td>
<td>-0.0056</td>
</tr>
<tr>
<td>Size</td>
<td>-0.0074</td>
<td>-0.0056</td>
<td>1.000</td>
</tr>
</tbody>
</table>

* High performance means more government contracts,
* High cost brings more government contracts

**5. Regression Result**

Regression is applied to the model and result of which have been shown in table 2. Empirical evidence suggests that bribery has the negative impact on firm performance. It means that increase in cost of brings contract have the negative effect on performance. Many studies in past that bribery has the negative impact on financial performance of firm (Uhlenbruck, & Eden, 2005).

The value of R-Square in table 2 is close to 0.649 which indicate very well fit to data. It means that almost 65 % change is due to the response variable (bribery). F-test value is very significant in both table showing that the model is best fitted with the data. The value of Durbin test is just above 2 showing that there is almost no serial correlation among the variable. T test statistics shows that our hypothesis H1 that bribery has the negative impact on firm performance is accepted which is supported by (Uhlenbruck, & Eden, 2005; Shaffer, 1995; Wang, Jiang, Yuan, & Yi, 2011).

**Table 2 Showing Regression Result**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R Square</td>
<td>Change</td>
<td>F Change</td>
<td>df1</td>
<td>df2</td>
<td>Sig. F Change</td>
</tr>
<tr>
<td>1</td>
<td>0.83*</td>
<td>0.649</td>
<td>.570</td>
<td>.03906</td>
<td>.0649</td>
<td>7.306</td>
</tr>
</tbody>
</table>

T-test result \( t = 2.34 \)

**6. Conclusion**

Corruption is increasingly making negative impact on firm performance and economic aspects of economies, especially in emerging economies and democratic countries of the world. Many organizations are examining the source and the solution for the corruption. In this study the theoretical model is composed of bribery as independent variable and firm performance as dependent variable. The bribery is the cost of purchasing government contracts or simply the involuntary tax paid by the firms to government officials for purchasing different contracts. Performance of firms depending upon the economic activities they undertake so its very obvious for the firms to purchase the contracts and previous study reveal that the firms that have higher approach to government officials win the most of the contracts from the competing firms. Table 1 shows the correlation analysis between firm performance and bribery. It shows that there is negative significant correlated of firm performance with bribery. The correlation between firm performance which is measure in obtaining more government contracts in questioner and bribery which is measure as cost of obtaining the contracts is \( r = -0.8012 \) having negative association between them. The size value of correlation is \( r = -0.0074 \) & \( -0.0056 \) showing that the size is not important in bribery and have subsequently have no affect on firm performance.

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