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# DOES THE EXTENT OF OWNERSHIP BY DIFFERENT SHAREHOLDERS ENHANCE FIRM FINANCIAL PERFORMANCE? EMPIRICAL EVIDENCE FROM AN EMERGING ECONOMY

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## **ABSTRACT**

**Purpose**- The aim of this paper is to examine the role of institutional, foreign, and government shareholding in enhancing financial performance of listed companies in the Dhaka Stock Exchange (DSE) of Bangladesh.

Methodology- The study is based on 110 manufacturing companies listed on Dhaka Stock Exchange (DSE) during the period of 2013-2017 which produces 512 firm-year observations. The study investigates the impact of the extent of ownership of different shareholders (namely institutions, foreigners, the government) on financial performance (as measured by return on assets, earnings per share and return on sales) of firms by conducting multivariate analysis using Pooled Ordinary Least Square regression along with year dummy, lag model and serial correlation.

**Findings-** The results of multiple regression analysis reveal that institutional and foreign ownership are significantly and positively associated with three proxies of firm performance. This study also finds that government ownership doesn't have any significant impact on firm performance in Bangladesh.

Conclusion- The study considers earnings per share as one of the corporate performance indicators which is widely used by fund providers in financial markets but seldom analyzed in the literature. The study will provide valuable insights to investors, regulators, and managers who want to understand how the extent of ownership by different shareholders drive different firm performance measures. The study analyzes only non-financial companies and does not incorporate market performance in the analysis of the hypothesized relationship among the variables.

 $\textbf{Keywords:} \ \textbf{Corporate governance, shareholding patterns, ownership structure, firm performance, agency theory and the performance of the pe$ 

JEL Codes: G30, G32, M21

# 1. INTRODUCTION

Previous literature on corporate governance recognizes large external/outsider ownership as an influential governance mechanism. Large share ownerships help to implement good corporate governance in a firm (Shleifer & Vishny, 1997; Cyert et. al., 1998). Extant studies argue that how shares are apportioned to outsiders and insiders is an important corporate control mechanism and it affects firm performance (Jensen & Meckling, 1976). For example, institutional owners are more likely to deliberately vote on anti-takeover decisions (Brickley et. al., 1988). Boone et. al. (2011) found that firms whose ownership contains block shareholdings are likely to perform better. Due to enhanced oversight, a large external ownership has a beneficial impact on the value of the company (Holderness & Sheehan, 1988). Better company performance is made possible by management making more optimal decisions and fewer suboptimal ones thanks to this enhanced and effective level of monitoring. Numerous

research studies have examined the effects of high levels of external ownership on the performance of firms in industrialized nations (Navissi & Naiker, 2006; Shin-Ping & Tsung-Hsien, 2009).

Rahman and Khatun (2017) claim that corporate governance standards are inadequate in emerging nations. Bangladesh is a developing country in South-east Asia that is still having difficulty establishing a corporate governance framework and an accountability culture within its enterprises, despite the publication of guidelines on corporate governance in 2006 and their revision in 2012 and 2018. In the absence of strong regulatory environment and more effective formal corporate governance mechanisms, an important characteristic of ownership that promotes good corporate governance is large external ownership (Rashid, 2020).

In the context of Bangladesh, a few studies have been done to investigate the relationship between ownership patterns and firm performance. However, the extant studies suffer from weaknesses due to limited timeframes (Das et. al., 2023) and limited number of proxies of firm performance and ownership patterns (Rashid, 2020; Das et. al., 2023; Rahman 2023). Moreover, prior studies in the context of Bangladesh provides mixed evidence regarding the connection between firm ownership structure and firm value. Rahman (2023) found insignificant and even negative impact of different categories of owners in the banking industry while others presented largely positive contribution of extent of ownership by different types of shareholders in nonfinancial firm samples (Rashid, 2020; Das et. Al., 2023).

The study makes several contributions to the body of knowledge already available on corporate governance. In the context of Bangladesh, it first examines how government ownership might improve corporate financial performance. The effect of government ownership on company performance was not examined in earlier research. Second, the study presents return on sales and earnings per share, two proxies of company performance that were rarely taken into account in earlier research but are highly pertinent and frequently utilised by investors in business valuation (Rahman et al., 2019). Third, although a number of researchers have questioned the validity of agency theory in emerging economies (e.g. Rahman, 2023), consistent with Rashid (2016) and Meah and Chaudhory (2019), this study provides some support for agency theory in a unique agency setting, Bangladesh. Fourth, we have also addressed the potential endogeneity concerns in the relationship between shareholding pattern and firm performance through appropriate regression models and using a large panel dataset from 512 firm year cases the study provides more robust results on the issue.

The impetus of this study is to investigate a sample of 110 Bangladeshi manufacturing firms during the period from 2013-2017 (resulting in 512 firm-year observations). These firms generally have insider and outsider ownerships. We have looked into how concentrated external ownership—government, institutional, and foreign—affects the ROA, EPS, and ROS measurements of a firm's performance. According to our empirical findings, foreign and institutional ownership significantly improves a firm's performance. Previous studies on the subject conducted in many nations (Tsai & Gu, 2007; Boone et al., 2011; Sunday et al., 2017; Rashid, 2020; Das et al., 2023) are in line with this. In contrast to Rahman (2023), our analysis supports agency theoretical arguments and presents a different picture of the role of institutional owners in Bangladesh. Hence, investors, especially small shareholders and lenders should invest in these types of firm where concentrated ownerships i.e., large institutional and foreign ownerships exist. On the other hand, our investigation found that government ownership doesn't play any monitoring role on firms as government does not hold any significant shares in firms. And therefore, the ownership of the government can be increased in different manufacturing firms if firms are expected to get various benefits of government ownership.

The paper's remaining sections are arranged as follows. In Section 2, we outline our hypothesis and provide a review of the literature. Section 3 covered methodological topics such as variables, econometric models, sample distribution, and data collection procedures. Section 4 presents the empirical data analysis, including summary statistics and our primary findings. Section 5 includes outputs of some further analyses to evaluate the results' robustness. In section 6, a conclusion, limitations, and recommendations are given.

# 2. LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Mixed evidence has been found in the prior literatures of corporate governance concerning the issue whether large external ownerships help to boost firm performance. Some researchers found that large external ownerships reduce the agency problem through curtailed distance between the shareholders and managers. The curtailed distance between the shareholders and managers can be achieved by active monitoring by the large shareholders. Dispersed share ownership creates many problems. For example, it is time consuming for the shareholders to make collective decisions. Dodd and Warner (1983) stated that problems associated with dispersed share ownership can be reduced by the presence of large shareholders. Another study by Shleifer and Vishny (1986) found that the possibilities of making take over decisions are being reduced when large external ownerships exist

and that motivate the managers to earn a high return on shareholdings. However, some studies found the opposite. Kaplan and Minton (1994), say, found that the possibilities of the replacement of managers and overall restructuring of firms increase when large ownership exists, and this leads to a decline of firm performance.

Institutional ownership- In many countries, institutional ownership is major source of equity for companies. This helps to comply with applicable corporate governance guidelines and establish a strong monitoring opportunity of the owners reducing agency problems which leads to more efficient firm performance. Study of Brickley et al. (1988) found that firm performance is positively influenced by institutional ownership. They affirmed that anti-takeover decisions are supported more actively by institutional shareholders than by others. Their finding is in line with those of Thomsen and Pedersen (2000), & Woidtke (2002). Also, Barclay and Holderness (1991) found that firms perform comparatively better after the acquisition of large portion of shares by corporate investors. According to Sunday et al. (2017), the property rights theory suggests that institutional investors prioritize profit because of their comparatively greater investment sizes. As a result, they continuously exert pressure on management to increase returns and the value of their investments. In line with this, Sarkar and Sarkar (2000) found that when institutions own more than 25% of a company's shares, it has a favorable impact on the company. Based on the arguments above, our hypothesis is-

H1: Institutional ownership is significantly associated with firm performance.

Foreign ownership - The majority of earlier studies offer evidence that foreign ownership improves a company's performance. According to Khanna and Palepu (2000), foreign owners typically have more leverage to take advantage of the gaps in the labor, capital, and technology markets, which benefits those companies. Abor and Biekpe (2007) provided that using modern technique in management and having more international exposure, foreign owners can lower agency costs and improve firm performance. Moreover, Chibber and Majumder (1999) suggested that firms with foreign ownership possess superiority in the field of technological, financial and organizational resources. This finding is also supported by Uwuigbe and Olunsanmi (2012) and Abdelgouad et al. (2015). Also, firms with large foreign ownership have better link with international communities and overseas investors. This causes these firms to have a better performance (Dhar, 1988). Similar evidence has been found in the study of Claessens and Djankov (1999) and Sarkar and Sarkar (2000). Meah (2019) found that foreign ownership helps firms take on less financial leverage and become less risky which implies the positive monitoring role of foreign ownership on firm and firm performance. Based on above discussion, our hypothesis is as follows.

H2: Foreign ownership is significantly associated with firm performance.

Government ownership - In closed economies such as China, the government owns a large share of businesses. Government ownership of businesses is low in free market nations like the United States and the United Kingdom. In developing and mixed economies like Bangladesh, governments own a small percentage of shares in listed firms. Study by DeWenter and Malatesta (2001) found a negative association of firm performance with government ownership. He identified non-profit orientation as a hindrance. Some other research said that appointments of less efficient politically affiliated people in the management are responsible for the negative association (Megginson et al., 1994; Boycko et al., 1996). Thus, Zeitun and Tian (2007) suggested a reduction in government ownership to increase firm performance. These findings are in line with some other studies including Mykhayliv and Zauner (2013) and Ting and Lean (2015).

However, prior research also found positive association of firm performance with government ownership (Martin and Parker, 1995; Kole and Mulherin, 1997). Yu (2013) found the same relationship in Chinese context. On the other hand, Uddin et al. (2014) stated that firms with government ownership earn high return for shareholders along with poor market performance which are due to lack of public trust. These findings are in line with the research of Ang and Ding (2006). Based on the above discussion, our hypothesis is as follows.

H3: Government ownership is significantly associated with firm performance.

## 3. METHODOLOGY

## 3.1. Sampling and Data Collection

Sample of this study consists of 110 manufacturing firms listed on Dhaka Stock Exchange (DSE). The data for the period from 2013 to 2017 (inclusive) have been collected for these 110 manufacturing firms. 512 firm-year observations were picked. Other firm-year observations have been dropped as some information was missing for various reasons. One of the reasons was that only audited financial statements rather than complete annual reports were available in the sources for some of the firm-year observations. But information related to our variables is only available in annual reports. New incorporation of some public limited company is another reason. And thus, the financial statements of all five years were not available for all companies. And thus,

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after comprehensive consideration, we have ended up with 512 firm-year observations in the sample set. This quantitative study collected annual reports from firms' websites and Lanka Bangla Financial Portal, a popular source of financial statements in Bangladesh. Information for large external ownership such as institutional ownership, foreign ownership and government ownership has been gathered from different parts of annual reports and the information for performance proxies (ROA, EPS and ROS) was extracted from the financial statements section of annual reports. Table 2 provides a comprehensive break down of industry-wise sample.

**Table 1: Sample Distribution** 

Industry Breakdown	No. of Sample Firms	Total Firms	Percentage (%)
Cement	6	7	85.71
Ceramics	4	5	80
Food and Allied	12	17	70.59
Jute	3	3	100
Tannery	3	6	50
Power and Fuel	12	19	63.16
Pharmaceuticals	22	30	73.33
Textiles	28	52	53.85
Engineering	19	36	52.78
Paper and Printing	1	3	33.33
Total (5 years duration)	110	178	61.8

Variables measurement - In this study, to test the effect of large external ownership on firm performance, dependent variable (firm performance measures), independent variables (different large external ownership categories) and control variables (firm characteristics) have been used.

**Dependent variables** - Three accounting based firm performance measures—ROA, EPS and ROS have been used as firm performance proxies in this study. A lot of firm performance proxies (ROA, EPS, ROS, Profit Margin, Tobin's Q and so on are used by scholars. Ouyang (2013), Rahman (2016), Rahman and Saima (2018), Rahman et al. (2019), Rahman (2023), and Zeitun and Tian (2007) have used ROA as the proxy of firm performance measure. On the other hand, Goll and Rasheed (2004) has used ROS as firm performance proxy. And finally, EPS has been used as firm performance proxy in the study of Zraiq and Fadzil (2018) and Rahman et al. (2019).

Independent variables - In our study, institutional, foreign, and government ownership are used as independent variables. Institutional ownership, as a type of external ownership, has been used in the studies of Shin-Ping and Tsung-Hsien (2009), Navissi and Naiker (2006), Shleifer and Vishny (1986), Barclay and Holderness (1991). Foreign ownership has been used as a type of external ownership in the studies of Abor and Biekpe (2007), Uwuigbe and Olunsanmi (2012), Choi et al. (2012). Zeitun and Tian (2007), Boone et al. (2011), Cheng and Ng (2018), Ting and Lean (2015) have used government ownership as a major factor that impacts firm performance.

**Control variables** - Some other variables may have impact on firm performance, which are needed to be monitored. Firm age, size and sales growth are three control variables of this investigation. Firm size and firm age have been used as control variables to investigate the effect of large external ownership on firm performance by Navissi and Naiker (2006), Cheng and Ng (2018).

## 3.2. Model Specification

Consistent with Zeitun and Tian (2007) along with some modifications considering the context of Bangladesh, following models have been developed to test the hypotheses of this study:

 $\begin{aligned} &\text{Model 1,} & &ROA_{it} = \beta_0 + \beta_1 INSOWN_{it} + \beta_2 FRNOWN_{it} + \beta_3 \ GVTOWN_{it} + \beta_4 AGE_{it} + \beta_5 SIZE_{it} + \beta_6 GROWTH_{it} + \varepsilon_{it} \\ &\text{Model 2,} & &EPS_{it} = \beta_0 + \beta_1 INSOWN_{it} + \beta_2 FRNOWN_{it} + \beta_3 \ GVTOWN_{it} + \beta_4 AGE_{it} + \beta_5 SIZE_{it} + \beta_6 GROWTH_{it} + \varepsilon_{it} \\ &\text{Model 3,} & &ROS_{it} = \beta_0 + \beta_1 INSOWN_{it} + \beta_2 FRNOWN_{it} + \beta_3 \ GVTOWN_{it} + \beta_4 AGE_{it} + \beta_5 SIZE_{it} + \beta_6 GROWTH_{it} + \varepsilon_{it} \end{aligned}$ 

Table 2: Description and Measurement of the Variables

Classification	Abbreviated	Full name	Measurement
	name		
Dependent	ROA	Return on assets	Net income after taxes / Total assets
Variables - Firm	EPS	Earnings per share	Net income after taxes / Number of shares outstanding
Performance	ROS	Return on sales	Net income after taxes / Total sales
Independent	INSOWN	Institutional ownership	Percentage of shares held by institutions
Variables –	FRNOWN	Foreign ownership	Percentage of shares held by foreign entities
Ownership	GVTOWN	Government ownership	Percentage of shares held by government representatives
Structure			
	AGE	Firm age	Natural logarithm of firm age measured as current year
Control Variables –			minus incorporation year
Firm Characteristics	SIZE	Firm size	Natural logarithm of total sales
	GROWTH	Sales growth	Current year sales minus previous year sales and divided
			by previous year sales

#### 4. EMPIRICAL RESULTS AND DISCUSSIONS

## 4.1. Descriptive Statistics

The descriptive statistics for the study's independent and dependent variables are shown in Table 4. The variables' mean, standard deviation, minimum and maximum values are among the data that are displayed. Return on Sales (ROS), Return on Assets (ROA), institutional ownership (INSOWN), foreign ownership (FRNOWN), and government ownership (GVTOWN), sales growth (GROWTH) are in percentage form. Earnings per share (EPS) and firm age (AGE) are in actual values while firm size (SIZE) is in million BDT (Bangladeshi Taka).

The table shows that mean ROA is 5.42% with a standard deviation of 6.52%. The lowest ROA in our dataset is -25.16% and the highest one is 40.32%. Another firm performance measure EPS is BDT 6.5816 on average and the range is minimum BDT -48.14 to maximum BDT 130.5. On average ROS is 8.19% with a standard deviation of 37.89%. Minimum ROS is -650% and highest ROS is 224.66%. Institutional shareholders' ownership percentage is 15.07% on average and it ranges from 0 to 78.89%. It can be said that mean institutional ownership percentage is high enough in Bangladesh to make us expect that this concentrated shareholding has a significant impact on firm profitability. Average foreign ownership is 6.83% and it ranges from 0% to as high as 90%. Although smaller than that of INSOWN, foreign portfolio and direct investment is widespread across listed firms in stock exchanges in Bangladesh. Mean government ownership is 3.23% ranging from 0 to 100%. This indicates that government ownership in Bangladesh on average is very small and mostly limited to state owned companies (SOEs). The sample firms' ages range from minimum 1 to maximum 41 years, with an average age of 16. In 2013, several of the firms had only been in operation for a year, having been incorporated in 2012. BDT 8817 million is the average firm size. The size of the company varies between 72 million to 145931 million BDT. The lowest and largest sales growth rates for Bangladeshi manufacturing companies are -100% and 414.55%, respectively, while the average annual growth rate is 8.5%.

**Table 3: Descriptive Statistics** 

Variable	N	Mean	Std. Dev.	Min	Max
ROA (%)	512	5.42	6.52	-25.16	40.32
EPS (BDT)	512	6.5816	15.7198	-48.14	130.5
ROS (%)	512	8.19	37.89	-650	224.66
INSOWN (%)	512	15.07	14.12	0	78.89
FRNOWN (%)	512	6.83	19.83	0	90
GVTOWN (%)	512	3.23	14.67	0	100
AGE	512	16	12	1	41
SIZE (BDT millions)	512	8817	16831	72	145931
GROWTH (%)	512	8.50	40.25	-100	414.55

#### 4.2. Correlation Matrix

Table 5 displays the correlation matrix of the dependent and independent variables in our models. The table shows that institutional shareholding (INSOWN) 0.0797 and government ownership (GVTOWN) (0.1143) are significantly and positively correlated with return on sales (ROS). FRNOWN has significant positive correlation with return on assets (ROA) and earnings per share (EPS) respectively.

**Table 5: Pearson Correlation Matrix** 

Variable	ROA	EPS	ROS	INSOWN	FRNOWN	GVTOWN
ROA	1					
EPS	0.5288***	1				
ROS	0.2578***	0.1045**	1			
INSOWN	-0.0216	0.0345	0.0797*	1		
FRNOWN	0.5390***	0.5977***	0.0411	-0.1236***	1	
GVTOWN	-0.0279	0.0635	0.1143***	0.1110***	-0.0712	1

<sup>(\*\*\*</sup>Significance at 1% level, \*\*significance at 5% level, \*significance at 10% level)

**Table 6: Multicollinearity Test** 

Variables	VIF	1/VIF
SIZE	1.53	0.652795
GVTOWN	1.25	0.797271
FRNOWN	1.24	0.808347
AGE	1.22	0.822874
INSOWN	1.10	0.907951
GRWOTH	1.01	0.990877
Mean VIF	1.22	

The VIF test of the independent and control variables is shown in Table 6 in order to identify any multicollinearity issues that may exist. Given that the mean VIF value is 1.22 (less than 10) and the range of values for each of these variables is 1.01 to 1.53, the result indicates that there is no multicollinearity issue in this case (Gujarati, 2003).

# 4.3. Regressions Results

The findings of the pooled OLS regression model, which was used to determine how ownership structure affected the manufacturing companies in Bangladesh that were listed on the stock exchange, are shown in Table 7. Table 7 lists the names of the relevant independent and control variables in the first column. The coefficients of ownership structure variables and firm characteristics on ROA, EPS, and ROS, respectively, are shown in the second, third, and fourth columns (asterisked to indicate significance level), along with the number of observations, R squared and F statistics, and standard errors (within parenthesis).

The results indicate that the predictor variable INSOWN is positively related to all firm performance proxies ROA, EPS and ROS and the relationship is significant at 5%, 10% and 1% level respectively. This signifies that the institutional shareholders significantly help improve accounting based firm performance as measured by ROA, EPS and ROS. This result is in line with prior studies Rashid (2020), Sunday et al (2017), and Tsai & Gu (2007). This result is in support of agency theory which says that institutional owners are with greater position due to their concentrated shareholding to monitor managers` performance to increase value of / return on their investment (Agrawal & Knoeber, 1996). The result is also consistent with the property rights theory which views that institutional investors prioritize more on profits because of their relatively larger size of investment and therefore can put pressure on the managers to generate profits and increase the value of their investment (Sunday et al, 2017). However, this result deviates from that of Rahman (2023) who found that institutional ownership has a negative impact on bank performance. Potential explanation may reside in the fact that banking industry is more politically connected industry in Bangladesh which deters external owners especially non-political ones from performing their value enhancing roles (Siddiqui, 2010).

The results presented in Table 7 also show that higher foreign ownership (FRNOWN) is associated with higher firm performance measured by ROA, EPS and ROS at 1% significance level. This implies that foreign ownership plays very important role as a corporate governance mechanism by positively influencing firm performance. This result is consistent with Aydin et al. (2007) and Rashid (2020) who found that foreign ownership has a positive impact on accounting based firm performance along with market based firm value indicators. Foreign owners can help increase firm performance for many reasons. They have generally more resources and motivation to monitor and give incentives to make managers lead the organization more efficiently and avoid initiatives that reduce corporate value (Aydin et al., 2007; Abor and Biekpe, 2007). Perhaps the transfer of innovative new technologies developed by foreign firms may be another explanation for the phenomenon (Chibber and Majumder, 1999).

Table 7 also indicates that firm performance variables ROA, EPS and ROS have no significant relationship with the extent of government ownership (GVTOWN) in the firms. Although insignificant, the coefficients herein are however positive. This result contrasts with prior research which argued that state ownership has positive/negative/U-shaped/inverted U-shaped impact on firm value and performance as measured by different proxies (Yu, 2013). As shown in the table 4, mean government ownership (GVTOWN) is very small compared to INSOWN and FRNOWN. The low government ownership is consistent with Farooque et al. (2007) who found mean government ownership percentage to be even lower (2.8%). Moreover, government ownership in Bangladesh is characterized by large shareholding in State Owned Enterprises (SOEs) which are scarcely listed in the stock exchanges. This insignificant amount of ownership could not explain variation in the financial performance of our sample firms.

Our result also shows that the additional benefits associated with government ownership (for example: benefits from government support and political connections) are perhaps offset by the costs of inefficiencies e.g., lack of entrepreneurial drive (Najid & Rahman, 2011), pursuit of political and welfare objectives rather than commercial objectives (Vickers & Yarrow, 1991), easier access to financing leading to government's safeguard from financial distress etc. associated with it.

**Table 7: Regression Results of the Explanatory Variables** 

Independent variables	ROA	EPS	ROS
	Coefficients	Coefficients	Coefficients
INSOWN	0.0004**	0.0566*	0.0022***
	(0.0002)	(0.0324)	(0.0009)
FRNOWN	0.002***	0.4281***	0.0012***
	(0.0002)	(0.0614)	(0.0003)
GVTOWN	0.0001	0.0370	0.0023
	(0.0001)	(0.0286)	(0.0016)
AGE	-0.0149***	2.7249***	-0.0422***
	(0.0027)	(0.6073)	(0.0083)
SIZE	-0.0007	1.6828***	0.0136
	(0.0028)	(0.4767)	(0.0093)
GROWTH	0.0347***	1.8184***	0.1067
	(0.0077)	(0.6526)	(0.0711)
CONSTANT	0.0735***	-17.5051***	0.0148
	(0.0210)	(4.6615)	(0.0767)
R <sup>2</sup>	0.3932	0.4121	0.0545
F	23.29***	17.90***	12.40***
N	512	512	512

(\*\*\*Significance at 1% level, \*\*significance at 5% level, \*significance at 10% level, two tailed. The numbers in parentheses represent standard errors obtained from regressions considering robust standard error)

Table 7 also provides insights about the relationship between firm financial performance different firm characteristics considered as control variables in our analysis. Firm age is negatively related to ROA and ROS but positively related to EPS. Firm size has a significant positive impact on only EPS. The relationship between firm performance proxies and sales growth is positive.

# 5. ROBUSTNESS CHECK

With a view to check the robustness of our study, regression considering year dummy, lag model and serial correlation were run as well. Regression results considering year dummy, lag model and serial correlation have been presented in table 8, 9 and 10

respectively. The regression results pertaining to the relationship between ownership structure and firm performance after considering year dummy is the same as above results (in table 7). It indicates that the results are not affected by previous year and signifies the consistency of the results to be free from bias.

**Table 8: Regression Results Considering Year Dummy** 

Variables	ROA	EPS	ROS
	Coefficients	Coefficients	Coefficients
INSOWN	0.0004**	0.0574*	0.0022***
FRNOWN	0.0020***	0.4273***	0.0012***
GVTOWN	0.0001	0.0353	0.0022
AGE	-0.0149***	2.7530***	-0.0388***
SIZE	-0.0007	1.7059***	0.0161
GROWTH	0.0355***	1.9046***	0.0995
CONSTANT	0.0697***	-18.0529***	0.0084
R <sup>2</sup>	0.3958	0.4132	0.0597
F	14.62***	10.94***	6.77***
N	512	512	512
Year Dummy	YES	YES	YES

<sup>(\*\*\*</sup>Significance at 1% level, \*\*significance at 5% level, \*significance at 10% level, two tailed)

Regression results considering lag model is also same as well. It indicates that there is no endogeneity problem between the independent variables and dependent variables as the result is similar to the result of table 7. The results may get biased and erroneous if there is an existence of endogeneity problem between and/or among variables and the results of this study can be claimed to be free from this bias as well due to the consistent results using lag model reported in table 9 compared to main regression results reported in table 7.

**Table 9: Regression Results Considering Lag Model** 

Variables	ROA	EPS	ROS
	Coefficients	Coefficients	Coefficients
INSOWN	0.0003*	0.0583*	0.0022**
FRNOWN	0.0019***	0.4076***	0.0010***
GVTOWN	0.0001	0.0357	0.0015
AGE	-0.0134***	2.5506***	-0.0399***
SIZE	0.0009	1.7449***	0.0225**
GROWTH	0.0369***	2.0761***	0.1263
CONSTANT	0.0598***	-17.3062***	-0.0615
R <sup>2</sup>	0.3892	0.4052	0.0537
F	18.74***	14.26***	9.18***
N	402	402	402

<sup>(\*\*\*</sup>Significance at 1% level, \*\*significance at 5% level, \*significance at 10% level, two tailed)

Regression results using serial correlation has deviated from previous results in case of INSOWN and its effect on ROA and EPS otherwise the result is same as the result documented in table 7.

**Table 10: Regression Results Considering Serial Correlation** 

Variables	ROA	EPS	ROS
	Coefficients	Coefficients	Coefficients
INSOWN	0.0004	0.0566	0.0022**
FRNOWN	0.0020***	0.4281***	0.0012***
GVTOWN	0.0001	0.0370	0.0023

AGE	-0.0149***	2.7249**	-0.0422***
SIZE	-0.0007	1.6828**	0.0136
GROWTH	0.0347***	1.8184***	0.1067*
CONSTANT	0.0735**	-17.5051**	0.0148
R <sup>2</sup>	0.3932	0.4121	0.0545
F	8.18***	5.26***	6.88***
N	512	512	512

(\*\*\*Significance at 1% level, \*\*significance at 5% level, \*significance at 10% level, two tailed)

## 6. CONCLUSION

The aim of this study is to examine the relationship between ownership structure and firm performance. In this paper, three proxies of ownership structure namely institutional ownership, foreign ownership and government ownership are used. Firm performance is expressed through return on assets (ROA), earnings per share (EPS) and return on sales (ROS). 110 listed manufacturing firms of Dhaka Stock Exchange (DSE) of Bangladesh are considered for the sample purpose which produces 512 firm-years during the period of 2013-2017. Multivariate analysis is performed by considering Pooled OLS method along with year dummy, serial correlation, and lag model to find out the impact of external stakeholders on profitability.

We have found that institutional and foreign owners play a very significant role as an external corporate governance mechanism in improving firm performance. Our results are consistent with agency theory that says that concentrated ownership plays a vital role in mitigating agency problems between managers and shareholders and thus improving financial performance of firms (Shleifer & Vishny, 1997; Rashid, 2020; Meah and Hossain, 2023). This is in sharp contrast with Rahman (2023), a recent study based on the listed banking companies in Bangladesh, which questioned the validity of agency-based arguments in favor of institutional ownership in Bangladesh. Moreover, our result is also consistent with property rights theory which postulates that such rights in the private sector are more clearly defined than in the public sector. So, the incentive for seeking profits by private owners leads to more effective monitoring of management performance. As a result, we can say that institutional and foreign owners have both resources and incentives to monitor the work of management (Yu, 2013).

However, we did not find any significant relationship between state ownership and firm performance. Government ownership in Bangladesh is characterized by large investment in State Owned Enterprises (SOEs) and the number of stock-exchange listed SOEs is very small in number. This phenomenon is reflected in small mean government ownership percentage in our sample. This may have led to such insignificant relationship. Existing literature confirmed that government ownership may act as both a "helping hand" and a "grabbing hand" in terms of its role as a corporate governance mechanism (Yu, 2013). The same phenomenon has perhaps led to an insignificant net effect of state ownership on firm performance.

## 7. IMPLICATIONS

Our research has many implications for regulatory authorities concerned with protection of shareholders` rights and investors in stock market securities. The policy makers should provide support to private investors especially foreign and institutional owners as a way of improving profitability of firms and protecting minority shareholders. The investors should invest in securities of firms with large investments by foreign and institutional owners to get higher returns.

Government ownership in stock exchange listed firms is very small in Bangladesh. Government ownership in listed firms can be increased to an optimum level as suggested by prior research (e.g. Yu, 2013) and more and more SOEs can be listed in stock exchanges can strengthen the government's role in corporate governance and help us better understand the impact of government ownership on firm performance.

We suggest future research in this area with a view to further our understanding about the role of different classes of owners in monitoring managers and improving firm performance. Further studies should differentiate among different types of foreign investors, use data from financial sectors not used in this study, use more appropriate research methods to identify net effect of state ownership on firm performance. Moreover, studies should be conducted to identify the underlying industry characteristics that make corporate governance mechanisms in the non-financial sector more effective than in the financial sector.

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