

FIRM PERFORMANCE: A COMPARATIVE ANALYSIS OF OWNERSHIP STRUCTURE

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Abstract

Majority of firms in the world have controlling shareholders, usually a family or a state and in few other cases, single individual controls many firms under an umbrella. The study aims to investigate the relationship between ownership structure and performance of firms. A sample of 100 firms listed on Karachi stock Exchange (including 50 private and 50 public firms) for time period 2007 to 2011 were used for analysis. Firm's performance is measured by accounting based measures as well as market based measures. Return on asset, Profitability, Leverage, Asset turnover, Earning per share and Tobin's Q are taken as independent variable and Equity is used as a dependent variable. The statistical tools Mean, OLS, Correlation and T-Test were used for analysis of data. It was concluded that privately owned firms performs better than publicly owned firms. All independent variables except Tobin's Q indicated a significant relationship with dependent variable which ultimately contributes toward a higher performance. Statistical differences are insignificant between private and public owned firms.

Keywords: Ownership, public firms, private firms, Karachi stock exchange, firm performance

Introduction

For past few years ownership structure and firm's performance has been discussed by financial scientists and researchers. They extended their work and found differences between public and private firms that can affect the performance, growth and profitability (Alee, badersther & Yohn, 2011; Kahn & Winton, 1998; Suehro, 2001; Shah et al, 2011). Ownership structure started from principle-agent relationship firstly studied by Smith (1776) and further investigated by Jensen & Meckling (1976) and Berle & Means (1932). Later on

potential problems and advantages of ownership structure to the performance of the firm were studied by Fama(1983) and Jensen(1985).

Family owned businesses (FBOs) are privately held firms, in which family is not only the major shareholder but also actively engages in operational and strategic management (Davis, 1983; Stern, 1986; Handler, 1989). Specially, family firm's strategic orientation is different from the publicly owned firms; they take up business objectives that are discordant with the larger goals of the firm, and to choose low-risk strategies that take part to maintain the control of ownership to definite shareholders. (Gudmundson et al. 1999; Tagiuri & Davis, 1992) Berle & Means (1932) studied that public ownership allows a greater access to credit, enhanced stock-based management compensation packages, external monitoring of the business and greater promotion of a firm. On the other hand public ownership could possibly create agency problems in management control. Private ownership also have advantages of better investment decision and they have a long term investment scope due to which they take a more mature and long term approach towards the management of the firm. However this cost can be compensated by cost of private ownership.

A firm managed by family members may be potentially less proficient and thus cause losses to the firm when compared to firms that are managed by outsiders (Burkart et al., 2003). However Performance is very important for the public and private ownership because internal and external stakeholders use it for their decisions.

The objectives set by the publicly owned and privately owned organizations are different. Private sector aspires for profit, while the public sector look for not only to obtain economic benefits but also to obtain social benefits with primary objective being public welfare of various natures (see Figure 1).

Figure 1: Publicly owned firms versus privately owned firms

Public organizations	Private organizations
Are usually monopolies	Operating in competitive market
Serves society	Maximize the investment's profit
Are driven directly or indirectly by politicians.	Leaders of companies are responsible to shareholders, to the board.
More rigid due to the process of Decision making and implementation	More flexible, easier to manage because the decision is taken by single leader
Organize, reorganize and regulate resources	Produce and distribute resources
Sometimes poorly funded	Are financed under its productivity or if investment decision is feasible
Citizens are often poorly informed & being suspicious of government	Investors and shareholders are well informed and the ongoing activities of Company and market evolve.

The above discussion highlights that public and private firms both have some advantages and disadvantages and effect the performance of the companies. The main purpose of this paper is to compare the performance of public and private firms listed on Karachi stock exchange and check whether ownership affects performance of a company or not.

Objectives:

Following are the objectives of this study:

- Comparison of private and public firm's performance in terms of ratio analysis.
- To examine effect of return on asset on the performance of public and private firms.
- To investigate effect of profit margin on the performance of public and private firm.
- To study effect of financial leverage on the performance of public and private firm.
- To analyze effect of asset turnover ratio on the performance of public and private firm.
- To study effect of earning per share on the performance of public and private firm.
- To investigate the effect of Tobin's Q on the performance of public and private firm.
- To analyze effects of ratio on performance of public and private firms.

Significance of study

The study is about performance comparison of public and private firms which can be beneficial for investors as an aid in deciding whether to buy stock or not. It can be helpful for managers, lenders, and equity fund managers in terms of future costs and benefits associated with ownership differences. It can be valuable for policy makers and advisors to form new policies or modifying existing policies to attract investors in low cost and high gain. Companies can also use this as they can focus on long term goals and strategic objectives. Its significance for Govt is that a greater consciousness of tax burdens and policy has resulted in a desire not only to prioritize services based on need and demand, but also to assure that the resources put into services are used to the best advantage. Society demands greater accountability for the resources they commit to government. Suppliers can use it to decide whether to sell merchandise to a company on credit or not.

Literature review:

Abdullahet al., (2011) examined the impact of group- and family-ownership on financial performance of a sample of firms listed on the Karachi Stock Exchange for the year 2003 to 2008. They took 158 companies listed on Karachi stock exchange from which 28 were family owned whereas 26 were nonfamily excluding financial firms (like Modarba, Bank, insurance companies). The methodology used by them is OLS and 2 SLS techniques, shareholding pattern from company's website and for performance measure return on asset, profit margin, financial leverage and asset turnover ratio and Tobin's Q. Results showed that the large size firms and firms with higher growth rate and higher sales turnover were more profitable than small size firms. Firms with higher financial leverage showed poor financial performance. The results of two sample t-tests for comparing the means of ROA, Tobin's Q, Asset Turnover, Debt Ratio and Profit margin in family-owned and non-family owned firms, ROA in family-owned firms was less than that of non-family owned firms (1.80% family, 3.40% non-family). The Tobin's Q of family-owned firm was economically larger than that of the non-family owned firms (4.48 for family and 1.28 for non-family). There were two main explanations for the indifference in the performance of family and non family firms, first was the family business not added any value of agency cost and second was family owned business indulge in minority expropriations.

Agawam & Kroeber (1996) examined the relationship between ownership structure and performance of firms. They took 383 large US firms in the years 1987. They took percentage of shares held by directors and officers which was above 5% as ownership variables and Tobin's Q were taken as performance variables. OLS and 2SLS regression was applied for the analysis. Results examined were: Tobin's Q significantly decreased with board outsiders, leverage, and corporate control leverage. And it increased significantly with insider ownership. SLS without Tobin's Q Shareholdings by block holders and institutional investors increased significantly by corporate control activity. Institutional ownership decreased significantly with block holder ownership and vice versa. Leverage increased significantly with insider ownership and outside board membership but not vice versa. Years of CEO employment decreased significantly with institutional and block holder ownership.

Ali et al. (2010) investigated the relationship between ownership and performance of listed companies in emerging south Asian market and took 67 companies from KSE 100 index excluding companies having different capital structure and whose data was unavailable. Variables taken for ownership were percentage of shares held by board of directors and for performance measure return on investment, return on equity, Tobin's Q,

Maris ratio. Results demonstrated that the firms with greater shares held by board showed worst performances. The calculated value of χ^2 was 6.394 with P value of 0.041 which was less than 0.05. This showed that groups were significantly different from each other on the basis of ownership structure. Hence, it showed that ownership structure has a significant relationship with performance.

Morck et al. (1988) studied the relationship between ownership structure and performance of firms. They took 371 largest US firms in 1980, combined shareholding of the board by all members which ranges: (0-5%), (5% -25%) and (25% -100%) were taken as ownership variables. Top two officer's combined shareholding was a dummy for the founder of board presence. For performance they took variables: Tobin's Q, profit rate by net cash flow to replacement cost of capital. Piecewise linear regression and OLS regression was also used for data analysis. Their result showed that: profitability was increasing significantly for board ownership in the range of (0-5%) and decreasing significantly in the range of (5%-25%). Significant controls: R&D to size and debt to size. Similar results for top two officers. However it was found that foreign ownership have a positive and significant effect on corporate governance quality. Concentrated ownership and state ownership rights improved efficiency.

Barontini & Caprio (2003) investigated the relationship between firm's performance and ownership structure in continental Europe. They used data from 675 public corporations trading in 11 countries (Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden and Switzerland). Ownership variables were ownership patterns which were from: official registers held by stock market authorities, corporation's official website and from other sources like World scope, extel and Osiris. Valuation variables were: Tobin's Q, return on assets. Control variables were: size of corporation by total asset, growth variable and leverage. In all regressions, either with dependent variable Q or with dependent variable return on asset the coefficient on the dummy-variable "family" was significantly positive. This expressed that for any given combination of cash-flows rights and wedge, family corporations tend to exhibit clearly better valuation and operating performance than non-family firms. Operating performance and valuation were significantly higher in founder-controlled companies, and in corporations controlled by descendants who sit on the board as non-executive directors. When a descendant takes the position of CEO, family-controlled companies were not statistically distinguishable from non-family ones in terms of valuation and performance.

Qureshi & Burki (2011) examined the corporate governance in the business environment of Pakistan providing explanation of salient features of corporate governance mechanism in Pakistan. They have used data of the

families/groups, a quick review of the board of directors of the listed companies on Karachi Stock Exchange (KSE) and their kin related linkages to the key political players and to the key member of civil and military bureaucracy substantiate deep rooted cronyism that has been developed and nurtured in Pakistan. Business groups and network structures were not only organizational in nature but essential for the formation of social capital that helped them in generating and sustaining positive socio-economic results, as well as generating strategic and competitive outcomes for family firms. The development of corporate governance sector in Pakistan outlined that certain families/groups had been very resourceful and powerful under all regimes, whether civil or military. These families/groups were found to be intertwined in complex networks of commercial and non-commercial interests. On the one end, these networks were used to extend the boundaries of formal business ties to nuptial ties, and on the other hand, these networks were used to move from corporate arena to civil as well as military bureaucratic.

Habbershon & Williams (1999) proposed that a firm's performance is dependent on certain kind of resources which were hard to imitate and thereby providing sustainable competitive advantage. They used grant model which showed connection between resources and competitive advantage potential. Their resource based literature identified business groups and networks as the two intangible resources that gave family firms competitive advantage. Moreover, business groups and networks provided the necessary mechanism to carryout corporate governance under the concept of family firms highlighting that when business groups' fails, replacing institutions provide rules of business.

Javed & Iqbal (2009) investigated the determinants of ownership concentration and its effect on firm's performance. They took sample of fifty firms from different manufacturing sectors of Pakistan, listed on Karachi stock exchange during year 2003-2008. Data was gathered from the annual reports of the firms for shareholding pattern and for accounting measures return on asset, return on equity and market measure Q ratio for firm performance. CGI index and sub-indices that were board composition index, shareholdings and audit index, disclosure and transparency index were used in estimation model. Results showed that there was negative relationship between ownership concentration and corporate governance as indicated by negative and significant coefficient of CGI. The results exposed that large size firms were more likely to attain better performance. It also showed that in Pakistan corporations had more concentration of ownership due to weak legal environment.

Fan & Wong (2001) investigated the relationship between ownership structure and the quality of accounting information in seven East Asian economies excluding Japan. They took sample of 977 companies in seven

East Asian economies for the period of 1991 to 1995. Ownership structure and accounting information were key variables in this study where ownership structure was the common shares directly owned by individuals or institutions. For accounting information cash flow patterns of the companies being used. Results showed that mean voting right of the East Asian corporation was 30.44% and the average of cash flow rights were 25.84. It indicated the divergence in voting rights and cash flow rights as the mean level of voting rights were lower than the cash flow rights. It also examined that high ownership concentration and the large separation of ownership and control weaken the informativeness of reported earnings to outside investors. Thus controlling owners were apparent to report accounting information for egoistic purposes, causing the reported earnings to lose integrity to outside investors.

Xu & Wong (1999) examined the ownership structure and performance of publicly listed companies in China within the framework of corporate governance. They took sample of 800 companies listed on two national stock exchanges from years 1995-1998. They took variables of ownership structure and for performance measure return on asset, return on equity; regression model and t-ratios were being used. Analysis showed that stock ownership significantly affected a company's performance. There was a positive and significant correlation between ownership concentration and profitability. Second, the firm's profitability was positively correlated with the fraction of legal person shares, but it was either negatively correlated or uncorrelated with the fractions of state shares and tradable A rated shares mostly held by individuals. Third, labour productivity tended to decline as the proportion of state shares increased. These results suggested the importance of large institutional shareholders in corporate governance, the inefficiency of state ownership and potential problems in a dispersed ownership structure.

Allee et al. (2011) evaluated the private and public corporate ownership and implications for future profitability. They used financial data of 1196 public and private firms in 2001. Variables used in the study were; return on net operating asset, profit margin, asset turnover, and return on equity, return on asset, cost of debt, leverage, sales, and net income. Regression model were used and results showed that private companies had significantly higher return on net operating asset and higher profitability. It was found that private firms as compared to public firms had higher cost of debt and higher return on equity. It was also analyzed that private firms were more profitable in future than public firms.

Bogart & Chaudhary (2010) studied the effect of public and private ownership on performance. They took sample of Indian railways for the period of 1874 to 1912. They used data from the Administration Reports

published annually. They constructed the variables of capital outlay, passenger and goods earning, gross earnings, working expenses, train miles, passenger miles and ton miles. Results showed that exploiting changes in ownership within the same railway systems and state ownership reduced operating cost by 12%. Traffic and general expenses declined after state takeover falling by 9.1 and 16.7% respectfully. They showed that switching from private to state ownership did not necessarily lower the performance of firm.

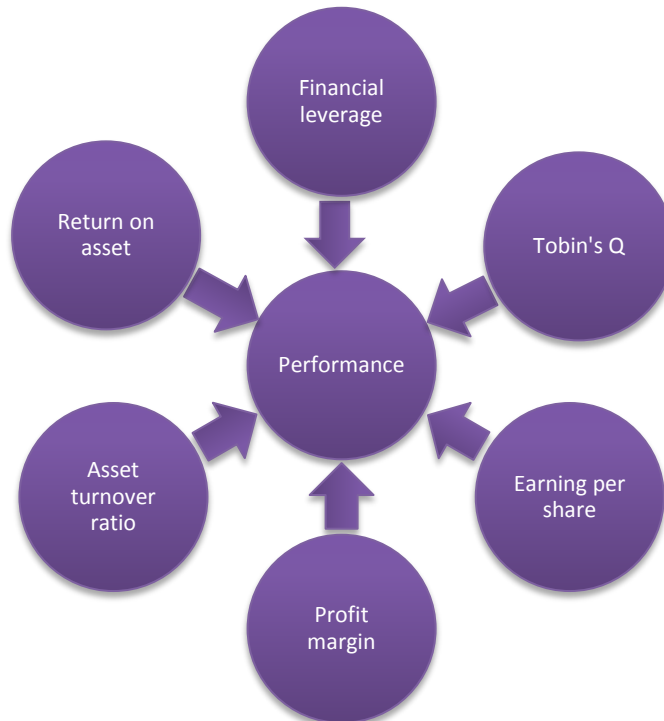
Estache& Rossi (1999) studied the performance of private and public water companies in Asia and Pacific region. They took sample of 50 firms in the year 1995. They used variables: operational and maintenance cost (COST), number of clients (CLIEN), daily production (PROD), population density in the area served (DENS), number of connections (CONS), percentage of water from surface sources (ASUP), treatment capacity (CAPAC), market structure (STRU), numbers of hours of water availability (QUALI), staff (PERS), salary (SALARY) and a set of qualitative variables. Regression models were being used for analysis. Results showed that relying on efficiency frontier over usual alternative options have advantage in the process of implementing yardstick competition. Models showed that private operators were more efficient than public operator.

Yaseer (2011) investigated the corporate governance and performance. They used a sample of 132 companies listed on Karachi stock exchange for the year 2003 to 2008. Variables used in the study were: debt, firm age and firm size (control variables), board composition, director's qualification, professional qualification, meeting and leadership structure (independent variable), Tobin's Q, Return on asset and operating cash flows (dependent variable). They used panel regression model analysis to determine the correlation coefficient. Results showed that there were significant differences between family and non-family owned firm's performance. Family controlled companies favoured more meetings to enhance firm's performance. Board composition of family and non family firms were negatively related with firm's performance. In terms of director's qualification only non family controlled companies showed positive relation with performance.

Feng-Li & Tsangyao (2010) empirically examined the optimal level of family ownership concentration. They used sample of 242 companies among 18 industries of Taiwan. These firms were listed from 1997 to 2006. A Threshold regression test was applied to determine the optimal level of concentration of family ownership. Firm's value was determined by Tobin's Q. The results showed that at the level when ownership concentration was below 0.075%, with 1% increase in ownership, Tobin's Q decreased by 257.71%. On the other hand when concentration of ownership was 0.075%

to 31.76% Tobin's Q increased by 0.78% with every 1% increase in the ownership concentration. When the ownership concentration was 31.76% to 33.61% Tobin's Q increased to 1.67%. However, when it was greater than 33.61% the Tobin's Q rate of increase decreased to 0.51%. Therefore it was concluded that the optimal level of ownership concentration was between 31.765 and 33.61%.

Theoretical framework:



Data and Methodology:

The study aims to compare the performance of public and private firms in terms of equity. Accounting and market based variables were used to compare the firm's performance. Accounting based variable included Return on Asset and Net Profit Margin whereas, market based included Asset Turnover, Financial Leverage, Earning per Share and Tobin's Q. All variables were selected after literature review (Han & Naughton, 2001; Barontini & Caprio, 2005; Shah et al., 2011).

Hypothesis:

Hypotheses are drawn as under:

H1= Return on Asset affects the performance of public and private firms.

H2= Profit Margin affects the performance of public and private firms.

H3= Financial Leverage affects on the performance of public and private firms.

H4= Asset Turnover affects the performance of public and private firms.

H5= Earnings per Share affects the performance of public and private firms.

H6= Tobin's Q affects the performance of public and private firms.

Sources of Data Collection and Sample Selection

Secondary data of 100 firms listed on KSE 100 index for the time period of 2007 to 2011 was used in the study. All financial and accounting data used in the study were taken from the annual reports published by the firms. These 100 firms were chosen from five sectors including textile, food, manufacturing, cement and mineral for the analysis of ownership structure. To check the stationarity of data unit root test was applied. If the data is not stationary the results will be unreliable and direct application of regression on non-stationary variables can give misleading estimates of relationship between variables (Diebeld & Kilian, 1999).

OLS technique was used to investigate the relationship between outcome and predictor variable. T-test was applied in the study to compare the performance between public and privately owned firms.

Detail information about sample data:

	Public Firms	Private Firms
Initial sample selected	60	60
Firms delisted or unavailability of data	10	10
Final sample	50	50

Initially a sample of 120 firms was selected but due to unavailability of data of 20 firms within research time period and delisting of few among them during study period, only 100 firms were studied after elimination.

Variables:

Name	Symbol	Method to find out
Dependent variables:		
Return on Asset	ROA	Net Profit/total assets
Net Profit Margin	PM	Net Profit/sales
Financial leverage	FL	Total Debts/total assets
Asset Turnover	ATO	Net sales/total assets
Earnings per share	EPS	Net Profit/no. of shares outstanding
Tobin's Q	TQ	(Total debts+ shareholders equity)/total assets
Dependent variable:		
Equity	E	Total assets-Total debts

Measuring variables:

Performance of firms was measured by following tools:

ROA:

Return on asset is a measure of earnings that is not inclined by the financial structure of the company. It is calculated by:

Return on asset= net profit/ total assets

The ratio of return on asset gives a standard to verify how successfully financial managers utilize each dollar invested in the asset of the firm, despite of whether the dollar came from investor or creditors. (Gibson, 2001, analysis of financial statements; John Wiley & sons, Inc, 3rd edition)

Profit margin:

Profitability is the ability of the firm to generate earnings. It is a relative success of a company's operations. It is calculated by:

Profit margin= net profit/ sales

This ratio gives a measure of net income dollars generated by each dollar of sales. Although it is desirable for this ratio to be high, competitive forces within an industry, economic conditions, use of debt financing and operating characteristics such as high fixed cost will cause the net profit margin to vary between and within the industries.

Financial leverage:

Financial leverage ratio indicates the firm's long term debt paying ability. It is calculated by:

Financial leverage = total debts / total assets

Financial leverage ratio indicates the percentage of assets financed by creditors, and it helps to determine how well creditors are protected in case of insolvency. From the perspective of debt paying ability in long term, the lower the ratio, the better company's position.

Tobin's Q:

James Tobin and Nobel laureate from Yale University theorize that "The combined market value of all the companies on the stock market should be about equal to their replacement costs". The ratio is designed as:

Tobin's Q = total market value of firm / total assets

Where,

Total market value of firm = market value of equity + debt

Market value of equity = No. of shares outstanding x market share price

Debt = total asset – equity

A low answer of Tobin's Q (0-1) point out that a greater cost is implied to replace the firm's assets than the stock's value. Thus it indicates that the

stock of the firm is undervalued in the market. In contrast a higher answer of Tobin's Q advocates that the firm's stock is more costly than the cost of firm's assets replacement.

Asset turnover ratio:

Asset turnover measures the activity of the assets and the ability of the firm to generate sales through use of the assets. Compute asset turnover as follows:

Asset turnover ratio = net sales / total assets

Asset turnover ratio indicates that how effectively manager utilize assets to generate the dollar sales. Higher ratio answer is more preferable then the lower one.

Earnings per share:

Earnings per share is the amount earned on a share of common stock during an accounting period, applies only to common stock and to corporate income statements. It is calculated by:

Earnings per share = net profit / number of common shares outstanding.

Earnings per share receive much attention from the financial community, investors and potential investors.

Data analysis and Results:

To analyze the relationship between firm ownership and firm performance Ordinal least squares method (OLS) was applied. Allee et al., (2011) found that ownership plays central role for utmost profitability to attract its present and prospective investors. To investigate hypothesis two-sample t-test was used to compare variables of same category. Correlation was applied to find out the relationship between independent and dependent variables.

Regression results:

Private sector:

Table: 1

Variable	Coefficients	Std. Error	t-Statistic	Prob.
C	16.07714	0.559428	28.73851	0.0000
ROA	4.669622	1.598914	2.920495	0.0038
PM	0.013788	0.003242	4.252379	0.0000
FL	-3.472215	0.340041	-10.21117	0.0000
ATO	-0.811768	0.311695	-2.604370	0.0098
EPS	0.051933	0.024165	2.149101	0.0327
TQ	-0.129500	0.080861	-1.601526	0.1106
R-squared	0.370849	Mean dependent var		12.39273

Adjusted R-squared	0.354578	S.D. dependent var	3.979986
S.E. of regression	3.197447	Akaike info criterion	5.191434
Sum squared residual	2371.891	Schwarz criterion	5.293255
Log likelihood	-613.3763	Hannan-Quinn criter.	5.232465
F-statistic	22.79184	Durbin-Watson stat	0.501915
Prob(F-statistic)	0.000000		

Regression equation:

$$\text{Equity} = C + \beta_1(\text{ROA}) + \beta_2(\text{PM}) + \beta_3(\text{FL}) + \beta_4(\text{ATO}) + \beta_5(\text{EPS}) + \beta_6(\text{TQ}) + \epsilon$$

Table 1 explains the regression results of privately owned firms. It explains that if the coefficients of all independent variables become zero then equity will remain 16.01%. R-square results demonstrate that 37% change in dependent variable is due to independent variables and remaining change is due to the factors which are not being accessible or not considered. As the t-statistic measures how many standard errors the coefficient is away from zero, therefore higher the t-value, the greater the confidence we have in the coefficients as predictors. (Bashir, 2011) Result of t-stat shows that only ATO, FL and TQ are not showing significant relationship. F-statistic has shown reliability of variables being used in the model.

Public sector:

Table 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.02447	0.502087	29.92404	0.0000
ROA	-1.621597	2.403304	-0.674737	0.5007
PM	1.496823	1.563712	0.957224	0.3397
FL	-1.172547	0.650058	-1.803757	0.0728
ATO	-0.145401	0.226644	-0.641537	0.5219
EPS	0.059185	0.029667	1.994990	0.0475
TQ	-0.033373	0.042887	-0.778165	0.4374
R-squared	0.079212	Mean dependent var		14.50340
Adjusted R-squared	0.050287	S.D. dependent var		1.988954
S.E. of regression	1.938300	Akaike info criterion		4.196213
Sum squared residual	717.5881	Schwarz criterion		4.312465
Log likelihood	-408.4251	Hannan-Quinn criter.		4.243268
F-statistic	2.738501	Durbin-Watson stat		0.212282
Prob(F-statistic)	0.014158			

Table 2 demonstrates the regression results of publicly owned firms. It explains that if the coefficients of all independent variables become zero then equity will remain 15.02%. T-stat shows that all variables have insignificant relationship. R-square expresses independent variables brought

only 7 % change in dependent variable and remaining change is due to the factors which have not been considered. F-statistic shows the validity of the model. As F-stat is greater than its P value so the model is valid.

Correlation method:

Table: 3

	ROA	NPM	LEVE	ATO	EPS	TQ	EQUITY
ROA	1.00						
NPM	0.07	1.00					
LEVE	0.18	0.07	1.00				
ATO	0.37	0.11	-0.12	1.00			
EPS	0.50	0.05	-0.09	0.35	1.00		
TQ	0.28	0.03	0.02	0.32	0.48	1.00	
EQUITY	0.04	-0.01	-0.52	0.03	0.20	0.08	1.00

Table 3 explains a multi-co linearity matrix among all variables. Dependent variable shows a positive relation with ROA, ATO, EPS and TQ. It has negative relation with profitability and leverage. ROA shows a positive relationship with all other variables. Profitability shows positive relationship with all independent variables and a negative relationship with dependent variable. Leverage shows positive correlation with market variable and a negative correlation with all other variables. ATO, TQ and EPS show positive relationship with all other variables. (Shah et al, 2011)

Paired Sample T-test:

Variables	Private Firms	Public Firms	Difference	T-Test
ROA	3.6%	9.7%	-6.1%	-2.168
NPM	75.2%	9.9%	65.3%	1.405
LEVE	60.28%	100.5%	40.25%	4.086
ATO	121.4%	108.8%	12.6%	1.649
EPS	252.5%	223.5%	29%	-.514
TOBIN Q	567.3%	401.7%	-165.5%	2.339
EQUITY	1187.9%	1343.4%	-155.5%	-3.442

Table: 4

Paired sample T-test used to compare the means of ROA, NPM, LEVE, ATO, EPS and TQ of public and private firms. The above results demonstrate that the mean of ROA, EPS, and EQUITY in private firm is less than public firms and they show a negative relationship. T-Test indicates that only LEVE, ATO, TQ and NPM have a positive relationship. They affect firm's performance positively. Results of ROA, EPS, TQ and EQUITY show an insignificant relationship. However statistical significance of the differences in means is negligible.

Findings:

Study aims at examining and empirically investigating performance of public and private ownership structures of firms listed on stock exchange of Pakistan. Several techniques were employed to examine the performance of both sectors. Results have shown that in private sector ATO, TQ and FL have no significant relationship while EPS, NPM and ROA have significant relationship and in public sector no variables under investigation show any significant relationship. To avoid stochastic properties in data and vague information coming out of those results Unit root test was applied to detect the Stationarity of the data. OLS was applied in order to apply regression analysis technique. R-square demonstrates that 37% change in dependent variable is due to independent variables and remaining change is due to the factors which are not accessible. Tobin's Q has a significant relationship with dependent variables and it contributes towards higher performance. Multi-co linearity matrix explained that dependent variable showed a positive relationship with ROA, ATO, EPS and TQ and negative relation with profitability and leverage. (Anderson and Reeb, 2003; shah et al, 2011). The results from all the tests indicate that ownership structure of private sector perform better than public sector.

Conclusion:

This study examines the comparative analysis of ownership structure and firm performance. Our findings are consistent with existing literature that on general level private sector performs efficiently than public sector and the findings are consistent with Barontini & Caprio (2003), Javed & Iqbal, (2009), Agawam & Kroeber (1996), Morck et al. (1988), Ali et al. (2010), Bogart & chaudhary (2010) Fan & Wong (2001) Anderson and Reeb (2003). Two aspects of ownership are being considered; public ownership and private owned firms. A sample of 100 firms listed on KSE 100 index was chosen for the time period of 2007-2011 including 50 public and 50 private firms.

Descriptive statistics were used to measure the data and find normality and frequency etc. Results indicated that privately owned firms perform better than publicly owned firms. All independent variables except Tobin's Q indicate a significant relationship with dependent variable which ultimately contributes toward a higher performance. In publicly owned firms only EPS has a significant relationship and resultantly adds toward firm's performance. It means public firms bear more cost than private ones and hence lacks profitability. Private firms have a positive relationship with return on asset (ROA) and a negative relation with leverage shows that private firms employ less debt financing as compared to public firms.

Finally it is demonstrated that privately owned firms are better because their equity has a significant relationship with NPM, ATO, FL, and EPS as compared to the publicly owned firms. There might be several reasons behind this comparatively better performance. Private firm's face less agency problems between management and equity holders and trim downs transaction cost. It is showed that less debt financing leads toward less financing cost.

Since the scope of current study is restricted to five years, further research is required on other variables to build new hypothesis for firm's performance with a larger data set. The consistency and reliability of data and model can be augmented by adding up more variables. These gaps can be filled by future researchers as current study is constrained by time resource faced by scholars.

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