Agency Cost, Corporate Governance and Ownership Structure: The Case of Pakistan

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(The Case of Pakistan)

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Abstract

The article attempts to investigate the role of ownership structure and corporate governance in mitigating agency cost in a sample of 50 firms selected on the basis of market capitalization from "Karachi Stock Exchange" during the period 2003 to 2006. We used the proxy asset utilisation ratio to measure agency cost. Multivariate fixed effect regression is used to analyze the data. The explanatory variables include director ownership, institutional ownership, external ownership, board size, CEO/Chair duality, remuneration structure and board independence. The results show that higher director and institutional ownership reduces the level of agency cost. Smaller sized boards also results in lowering agency cost. Board independence has positive association with asset utilisation ratio. The separation of the post of CEO and chairperson and higher remuneration lower agency cost.

Keywords: Corporate governance, ownership structure, agency cost, Karachi Stock Exchange.

1. Introduction

Corporate governance mechanisms are those mechanisms that protect shareholders interests. Country's economic development improves with the help of good corporate governance. According to Core et al. (1999) companies will face higher problems of agency cost when they have week structure of corporate governance and in spite of maximizing firms value managers of such firms overindulge in personal pursuits. The Pakistan code of corporate governance was published in year 2002 by the, "Securities and Exchange Commission of Pakistan", for the purpose of enhancing governance and transparency and to improve the disclosure in financial reporting of companies in order to protect the interests of companies investors.

To the best of author knowledge it is the first study done in Pakistan in order to investigate the role of corporate governance and structure of ownership in minimizing agency cost. Cheema et al. (2003) has studied only the nature of ownership structure of corporations in Pakistan, Ghani et al. (2002) examines business groups and their impact on corporate governance during 1998-2002. Hasan and Butt (2009) examine the impact of ownership structure and corporate governance on capital structure from 2002 to 2005. Ashraf and Ghani (2005) examine the origins, growth, and the development of accounting practices and disclosures in Pakistan and the factors that influenced them. Mir and Nishat (2004), Shaheen and Nishat (2004), Tariq and Butt (2008), Javed and Iqbal (2006), Javed and Iqbal (2010) and Humera Khatab et al. (2010) studied the relationship between corporate governance and firm performance. Therefore it is the first work done in the context of Pakistan which address the agency problem and the role of corporate governance and ownership structure in limiting it, especially after the establishment of code of corporate governance in 2002.

Limited research has been done in developed countries too, in the area of corporate governance. Furthermore, studies that have directly measured agency cost level and then determine factors that affect firm's agency costs are few in number. Studies that have empirically examined the agency cost determinants and the influence of corporate governance on agency cost include, Ang et al. (2000) who have taken data from US non-listed companies, Singh and Davidson (2003) and Doukas, Kim and Pantzalis (2000) used a sample of large listed American firms, Fleming et al. (2005) and Darren Henry (2006) in the context of Australia, in UK companies Florackis and Ozkan (2004) during the period 1999 to 2003 and Doukas et al. (2005).

As developing economy Pakistan's governance practices is likely to be different from those of developed economies. According to Carcello et al. (2002) and Yatim et al. (2006) previous literature on corporate governance also argues that most of the work in this field has been done in developed countries and very little in developing countries, because their mechanisms of corporate governance is still evolving.

The purpose of this article is to evaluate the effectiveness of mechanisms related to governance and structure of ownership in minimizing or controlling the costs arises from agency problem within a sample of companies listed in the "Karachi Stock Exchange", during 2003 to 2006. The study not only contributes in finding such factors that help in mitigating the problem of agency cost but also have implications for the corporate governance reform process in Pakistan.

2. Literature Review

Agency costs can manifest in various forms, including self-serving behavior on the part of managers focused on status or empire-building objectives, excessive perquisite consumption, non-optimal investment decision-making or acts of accounting mismanagement or corporate fraud. The adverse implications of these actions are then felt in the form of the destruction of shareholder wealth and wider impacts on other corporate stakeholders. The realization of the consequences flowing from the incidence of agency problems have led to emphasis being placed on the importance of competitive markets for managerial labor and corporate control as monitoring mechanisms designed to limit the degree of agency divergence, the role of institutional shareholders as substitute agency devices and the development and enforcement of codes of corporate governance practice to enhance director and management oversight and create desirable incentive structures within firms. The empirical literature on the role of corporate governance in mitigating agency cost is very limited. However, it is suggested that agency costs can be reduced by internal governance mechanisms and there is empirical evidence in support of this argument.

2.1 Board Size

Small boards were found less powerful and effective as compare to boards that are large in size in a study done by Pearce and Zahra (1991). This result is also supported by Singh and Davidson III (2003) by saying that the association between size of the board and asset utilization ratio is positive and statistically significant, furthermore they conclude that agency cost will be lower the greater the asset utilization ratio. In contrast Florackis and Ozkan (2004) in a study during 1999-2003 on a sample of UK public listed companies, found that size of board has a negative influence on agency cost proxy asset turnover, which means that the higher the size of the board the higher will be the agency costs because of less efficiency. Similarly (Beiner et al. 2004; and Eisenberg et al.1998) support the findings of Florackis and Ozkan's (2004) with evidence that board size is negatively correlated with asset turnover.

2.2 Board Independence

Larger board independence is perceived as a monitory mechanism which can play an important role in limiting or controlling the agency problem. There are numerous studies in the literature which shed light on the role of independent directors and suggest that they are more likely to work for the shareholders interest such as Byrd and Hickman (1992), Brickley et al. (1994), Westphal and Zaiac (1995) and Borokkhovich et al. (1996). Similar results were found by McKnight and Mira (2003) and Henry (2004) concluding that agency costs will be lower the higher the number of independent directors on the board. On the contrary the findings of Hermalin and Weisbach (1991) and Agrawal and Knoeber (1996) suggest that board independence does not play a significant role in mitigating agency costs. Ang et al. (2000) also support the argument of Hermalin and Weisbach (1991) and Agrawal and Knoeber (1996).

2.3 CEO/Chair Duality

It is strongly suggested in the literature that separating the post of CEO and chairperson will not only improve firm performance but also help in minimizing agency costs. However it is proposes by agency theory according to Fama and Jensen (1983) that in order to minimize agency cost the structure of leadership could not be separated. It was found that CEO/Chair duality does not impact agency costs McKnight and Mira (2003) and Florackis and Ozkan (2004). Mcknight and Weir (2008) in a study on UK public listed firms also finds that duality does not play an important role in mitigating agency cost.

2.6 Remuneration Structure

The next variable which is remuneration structure is proxied as taking natural log of the sum of the total annual benefits paid to all board members? It is predicted in the prior literature that the higher the remuneration of directors the lower will be the agency cost because these incentives will induce managers to work in the best interest of company shareholder in order to continuously receive these benefits and to protect their job security. However in contrast to the predictions made in the prior literature about the association between remuneration structure and agency cost Darren Henry (2006) found that the influence of remuneration structure on agency cost measure asset utilization ratio is negative, indicating that higher directors pay does not mitigate agency cost, on the other hand he found that remuneration structure has negative association with asset liquidity ratio suggesting that remuneration structure lowers agency cost.

2.4 Managerial Ownership

Agency costs will be reduced the higher the managerial ownership because when the ownership of managers in the firm increases it will result in the convergence of interests between company managers and shareholders as suggested by Jensen and Meckling (1976) in the agency theory. Singh and Davidson (2003) also support the prediction of agency theory however he find week evidence that agency problem is minimized with increasing ownership of managers in the firm.

2.5 Institutional Ownership

Institutional shareholders play a key role in mitigating agency problem because they can monitor firm performance and action of managers and can influence managerial decision making. Furthermore institutional shareholders as shown by Brickley, Lease, and Smith (1988) as compare to other shareholders vote more actively on anti-takeover amendments and work in the best interest of shareholders. According to Pound (1988) institutional investors as compare to private shareholders who are less informed can monitor managerial performance at lower cost because of greater expertise and resources. Henry (2004) also supports the findings of Pound (1988). In contrast Doukas et al. (2000) and Mcknight and Weir (2008) show that agency cost is not influenced by institutional ownership. According to Singh and Davidson (2003) outside block ownership do not appear to have a significant influence on agency cost.

2.7 External Ownership

The final variable of the study is external ownership which is measured as the sum of all individual shareholdings except managerial and institutional shareholdings. Similar to institutional shareholders other external substantial shareholders can also maximize their value by monitoring company performance, which will result in minimization of the agency costs. According to Darren Henry (2006) there is a negative influence on the dependent variable asset utilization ratio, but this association does not appear to be significant. Similar result was found by Singh and Davidson III (2003) in a study done in the context of US, concluding that external block holding does not have a significant impact on agency cost when it is measured in terms of discretionary expense ratio and asset utilization ratio. The reason according to Singh and Davidson III (2003) for the insignificant association between the explanatory variable external ownership and proxies of agency cost may be because these agency variables may not completely capture the performance metrics that are evaluated by the outside block holders when evaluating firm performance.

3. Conceptual framework

In this paper we have discussed all the important ingredients of which conceptual framework consists of (figure 1), for example generation of the research hypothesis, variables operationalization, design of research and limitations.
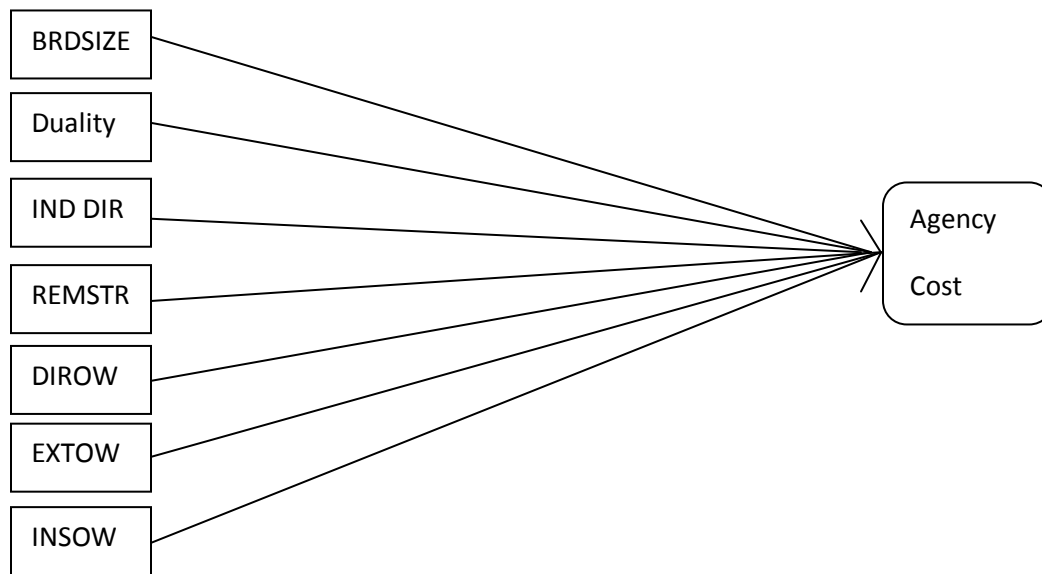
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Figure: 1

3.1 Hypothesis

H 1: Agency costs will be lower when companies have boards that are small in size.
H 2: Companies will face lower agency costs when they have higher board independence.
H 3: Agency costs will be lower when companies have two different persons acting as a CEO and chairperson.
H4: Agency costs decreases with increasing pay and bonuses of management.
H 5: At higher level of managerial ownership firm will have lower agency costs.
H 6: At higher level of institutional ownership agency costs will be lower.
H 7: Higher external ownership mitigate agency problem.

4. Data and Operationalization of Variables

The sample used in the study consists of top 50 companies selected on the basis of market capitalization. We select companies which are listed in the, "Karachi Stock Exchange" and for which data is available on all variables. Companies that have unique ownership structure such as banks and companies that have different management structure such as investment trust companies are excluded from the sample. The period of the study consist of four years from 2003 to 2006. The data has been collected from KSE, SECP, State Bank of Pakistan and the Audited Annual Reports from companies' official websites. Audited Annual Accounts of all the companies during 2003 to 2006 has been mostly considered for calculation of financial variables. Fixed effect multivariate regression analysis is used in order to examine the role of governance and ownership attributes in mitigating agency cost.

4.1 Operationalization of Variables

4.1.1 Dependent Variable

Dependent variable of the study is agency cost, which is measured by using the proxy asset utilization ratio.

4.1.1.1 Agency Cost

Asset Utilization Ratio: The asset utilisation ratio is used by following Ang, Cole and Wuh Lin (2000) and Singh and Davidson (2003). A higher asset utilisation ratio indicates that companies are making investment decisions which are non-optimal or a second interpretation will be that companies are investing their funds in projects which are unproductive. It is defined as:

Asset utilisation ratio = total revenue/total assets

4.1.2 Explanatory Variables

The variables evaluated in this paper as potential determinants of agency cost levels can be categorized as representing ownership influences and corporate governance mechanisms.

4.1.2.1 Director Ownership: Following Darren Henry (2006) we measured it as the percentage of total firm equity capital held by all company directors.

4.1.2.2 Institutional Ownership: Following Darren Henry (2006) it is determined as the total percentage shareholding of all institutional shareholders.

4.1.2.3 External Ownership: Following Darren Henry (2006) we define it as the sum of all individual non-institutional and non-director shareholdings.

4.1.2.4 Board Size: Following Mir and Nishat (2004) we measure board size by taking natural log of all board members.

4.1.2.5 Duality: Following Mcknight and Weir (2004) duality is included as a dummy variable which is given a value of 1 if the CEO is also the chairperson of the board of directors and 0 otherwise.

4.1.2.6 Independent Directors: Following Darren Henry (2006) it is measured as the number of independent directors on the board relative to total number of board members.

4.1.2.7 Remuneration structure: we measured this variable as taking natural log of the sum of total annual benefits paid to all members of the board.

5. Model

The technique used in the study to examine the link between governance, ownership structure and agency cost proxies is fixed effects multivariate regression analysis. This technique removes omitted variable bias and allows for controlling unobserved heterogeneity across the sample firms. The model specifications are as follows:

Agency cost it = α + $\beta 1$ (CEO- chair duality it) + $\beta 2$ (Board independence it) + $\beta 3$ (Board size it) + $\beta 4$ (Board remuneration it) + $\beta 5$ (Institutional ownership it) + $\beta 6$ (External ownership it) + $\beta 7$ (Director Ownership it) + δi + e it

Where:
Agency cost it = the dependent variable of the study, it represent asset utilisation ratio for firm i at period t.

α = the intercept
δi = the firm-specific fixed effect
e it = error term

6. Analysis and Results

6.1 Descriptive Statistics

In table 1 we have shown descriptive statistics for seven explanatory variables and agency cost proxy asset utilization ratio. The descriptive statistics include the median, mean, standard deviation, min and max values. The sample consists of 50 companies listed in the "Karachi Stock Exchange", during 2003 to 2006. The data has been taken from company's annual reports, Karachi Stock Exchange and State Bank of Pakistan. The results show that the mean asset utilization ratio is 0.7938, with a standard deviation of 0.5879. As for as corporate governance and ownership characteristics are concerned, the variable independent director has a mean value of 0.1554, which indicate that the percentage of independent directors in company board of directors is 15.54%. The mean board size stood at 8 members with a standard deviation of 2.4365, whereas duality has a mean value of 0.1956 which means that sample companies in which CEO is also the chairperson of the board is less than 20%. The number of shares held by company directors and institutions is 24.87% and 16.45% respectively of total equity capital. The average value of external ownership is 23.86% with a standard deviation of 27.81%.

Table 1: Four year summary of descriptive statistics

Variables	Mean	Median	SD	Minimum	Maximum
Asset utilisation ratio	0.7938	0.5436	0.5879	0.0004	3.2145
Independence	0.1554	0.1865	0.2756	0.0000	1.0000
Duality	0.1956	0.0000	0.3881	0.0000	1.0000
Board size	8.5478	7.0012	2.4365	4.0000	21.000
Director ownership	0.2487	0.0865	0.1954	0.0000	0.8178
Institutional ownership	0.1645	0.1435	0.1284	0.0000	0.5867
External ownership	0.2386	0.1378	0.2781	0.0000	0.7976
Remuneration ($000)	1979.6	1309.0	3245.3	11.000	55200.0

6.2 Correlation Matrix

The Pearson's co-efficient of correlation is used in order to examine whether multicollinearity exist among the regressors or not, table 2 presents the results. Technique for detecting multicollinearity is through the use of a correlation matrix. Their will exist the problem of multicollinearity between explanatory variables when a serious correlation is found between them, but researchers do not agree that at what specific point a correlation will be considered as a high correlation. A correlation will be called as a high correlation when it exceeds 0.80 or 0.90 according to Kennedy (1998). According to Brayman and Cramer (2001) when the correlation between any two variables is 0.80 or higher then they will have the problem of multicollinearity whereas 0.70 is used as a bench mark by Anderson et al. (1999) for serious correlation. Data for the whole sample is used to find correlations among explanatory variables using Pearson's co-efficient of correlation which are shown in table 3. However it can be seen that there is no serious correlation between any two of the independent variables.

After analyzing the Correlations between independent variables we find several observations which are noteworthy. First, it can be seen in table 2 that number of independent directors increases as institutional ownership increases however when managerial and external ownership increases board independence decreases. Similarly the CEO is not the chairperson of the board in companies where board independence and institutional ownership is higher; in contrast companies with higher managerial ownership will have CEO working as chairperson of the board. Furthermore institutional ownership is less in companies where majority of shares is held by company directors or external shareholders, therefore such firms are exposed to higher agency problems.

Table 2: Correlation Matrix

	Ind dir	Duality	Board Size	Dirown	Insown	Extown	Remstr
Ind dir	1						
Duality	-0.265	1					
Board Size	0.124	-0.044	1				
Dirown	-0.045	0.467	-0.205	1			
Insown	0.348	-0.123	0.128	-0.035	1		
Extown	-0.267	-0.006	-0.165	-0.132	-0.078	1	
Remstr	0.066	0.041	0.365	-0.029	0.124	-0.164	1

Note: *Ind dir = independent directors, Dirown= director ownership, Insown= institutional ownership, Extown= external ownership, Remstr= remuneration structure*

6.3 Regression Results

The results of fixed effect multivariate regression analysis are presented in table 1, with asset utilization ratio as the dependent variable. The model as a whole is significant in explaining variation in the dependent variable.

R-square is 0.458 which means that the seven independent variables explain 45% variation in the dependent variable asset utilization ratio. Firm-specific fixed effects are also highly significant, indicating substantial firm heterogeneity across sample firms. The result shows that variable director ownership and asset utilization ratio have strong positive correlation. The reason is that the higher the director's shareholding in the company the more closer will be their wealth and decision making interest with that of company shareholders. Thus as a result the agency cost will be reduced. Our result is against the findings of Singh and Davidson III (2003) who found that director ownership has negative association with asset utilization ratio. However when they measure agency cost as discretionary expense ratio the result becomes insignificant. However, Mustapha and Ahmad (2001) found that higher director ownership reduces agency costs. Hence the hypothesis that higher director ownership will lower agency cost will be accepted.

Similarly institutional ownership has significant positive influence on asset utilization ratio. Institutional investors monitor the decision making and performance of the firm, effective monitoring align the interest of shareholders with that of the owners, resulting in mitigation of agency cost. Thus we will accept the hypothesis that higher institutional shareholding will reduce agency cost. Henry (2004) also found that agency costs will be lower the higher the institutional shareholdings. In contrast Doukas et al. (2000) and Mcknight and Weir (2008) show that agency cost is not influenced by institutional ownership. However external ownership did not have any significant influence on agency cost. Similar result was found by Darren Henry (2006) while taking asset utilization ratio as the dependent variable. Singh and Davidson III (2003) also do not find any significant impact on agency cost when it is measured in terms of discretionary expense ratio and asset utilization ratio.

As for the variables related to corporate governance are concerned, most of them have significant influence on asset utilisation ratio. For example it can be seen in table 1 that asset utilization ratio enhanced significantly by increasing the number of independent directors on the board and with smaller size boards. The justification for the negative association between the explanatory variable board size and the asset utilization ratio may be that smaller size boards, in making decisions are more effective and organizationally functional as compare to larger boards, furthermore it is rather more easy for top management for example Chief Executive Officer to control smaller board of directors. Hence boards with small size are therefore having lower agency costs. Our result is consistent with the findings of Ibrahim and abdul samad (2006), they also found that smaller board size play a significant role in lowering agency costs. In contrast, Pearce and Zahra (1991) and Florackis and Ozkan (2004) found that larger boards mitigate agency costs as compare to smaller boards.

The company with larger number of independent directors will have lower agency costs because independent directors have a significant influence on the performance of the firm. Independent directors not only protect the interest of shareholders but also monitor decision making of company's management. Thus we will accept our hypothesis that agency cost decreases with smaller boards and increasing the number of independent directors. Similar results were found by McKnight and Mira (2003) and Henry (2004) that board independence lowers agency costs. In a study on data taken from Malaysian family and non-family ownership firms Ibrahim and abdul samad (2006) conclude that there is no significant association between agency cost and independent directors when it comes to companies from family ownership, but in contrast independent directors minimize agency costs in non-family ownership. Hermalin and Weisbach (1991), Agrawal and Knoeber (1996), Ang et al. (2000) and Singh and Davidson III (2003) found that independent directors does not influence agency costs.

The association of variable CEO/Chair duality with asset utilization ratio is negative and statistically significant. Firms with same person acting as both a CEO and Chairman will increase the influence of a single person on the decision making of the board of directors, resulting in a higher agency problem. Thus the hypothesis that separation of the post of CEO and chairperson will lower agency cost stands. Ibrahim and abdul samad (2006) found that in family ownership firms agency cost decreases when duality role exist, on the other hand agency costs rises when duality role exists in non-family ownership. It was found that CEO/Chair duality does not impact agency costs McKnight and Mira (2003), Florackis and Ozkan (2004) and Mcknight and Weir (2008). Consistent with prior literature remuneration of board of directors has positive relation with asset utilisation ratio, which means that higher pay to managers results in raising firm performance and reducing agency cost. Thus we will accept our hypothesis.

Table 3

The results of fixed effect regression of the determinants of agency cost for the duration of four years from 2003-2006. The dependent variable is the asset utilization ratio. Explanatory variables are related to corporate governance and structure of ownership.

Variables	coefficient	t-statistic	p-value
Intercept	0.322	4.052*	0.0000
Director ownership	0.112	3.41*	0.0007
Institutional ownership	0.002	2.94*	0.0080
External ownership	1.183	0.637	0.0138
Board size	-0.514	-3.092*	0.0060
Duality	-0.017	-4.46*	0.0000
Independence	0.019	3.96*	0.0001
Remuneration structure	0.010	2.566**	0.0190
R-square	0.452		
F-statistic	8.470		
Fixed effect significance	58.254		

Significant at 1% level
Significant at 5% level

7. Conclusion

The paper attempts to examine the role of ownership structure and corporate governance in mitigating agency cost on a sample of 50 randomly selected firms listed in the, "Karachi Stock Exchange" during the period 2003 to 2006. We used the proxy asset utilisation to measure agency cost. Multivariate fixed effect regression is used to analyze the data. Explanatory variables consist of governance and ownership related attributes such as director ownership, external ownership, and institutional ownership, size of board of directors, CEO/Chair duality, and remuneration structure and board independence.

The results show that higher director and institutional ownership reduces the level of agency cost. Smaller size boards also results in lowering agency cost and the variable board size have significant negative association with asset utilization ratio. Board independence has positive association with asset utilisation ratio. The separation of the post of CEO and chairperson and higher remuneration lower agency cost when asset utilisation ratio was the dependent variable.

7.1 Limitations of the Study

The research conducted in this study has the following limitations:
- In fact, more work is required in the area of pre-board selection tests, and an accreditation system that guarantees at least some fundamental levels of skill, knowledge and experience.
- The study only covers data of firms that are listed in the, "Karachi Stock Exchange", for the last four years 2003-2006, and therefore does not represent time period beyond this.
- The study only focus on firms listed on the KSE and therefore does not represent unlisted companies. Furthermore, the study also excluded financial firms due to their unique ownership and governance structure.
- Firms had to be a KSE listed company for the period of four years in order to meet the criteria for inclusion in the sample. This might have resulted in sample bias Zikmund (2003).

7.2 Suggested Future Research

Based on the limitations and findings of current research, the following recommendations can be made for future research:
- In order to find out the association of agency cost with some other types of structure of ownership for example family ownership and public sector firms which is unique in Pakistan, research in the future needs to make a difference between family and non-family ownership.

- The researcher needs to include more years of data in order to extend the study and add some control variables like leverage, growth, risk and size of the firm to investigate their role in mitigating agency cost.
- Furthermore, those who want to study the impact of governance and ownership structure on agency cost in the future needs to cover financial sectors, which will not only extend this study but also the results will become more effective.
- In order to investigate whether the level of agency cost is affected by the existence of nonlinear ownership, the researchers in the field of corporate finance needs to re-estimate the above model after including squared terms for the external and director ownership variables.

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