Ownership Structure and Risk Management: Evidence from Sri Lanka

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Abstract

Today almost all business firms confront with an important issue that is conflict of interest between shareholders and management of the company. Corporate governance is a key mechanism that articulated to protect the interests of shareholders and all other stakeholders. As a part of corporate governance, the ownership structure performs a significant role in minimizing the cost related with the separation of ownership and control of the company. Different ownership structures take different dimensions and it affects to determine the directions of an entity. According to the ownership structure entities have to face various risks as well as challenges. Many researchers found that the way of accepting and managing risk is different according to the various structure of ownership. Country’s social, economic, political and regulatory environment affects to determine the shape of ownership structure of an entity. So it should necessarily be investigated whether the ownership structure affects towards the risk management of the listed companies in Sri Lanka.

This research focuses to investigate the effect of ownership structure on risk management while filling the contextual research gap. For this study, all companies listed in Colombo Stock Exchange (CSE) are considered as the population. Stratified sampling method was employed and 30 companies were selected. The analyzing time period was 2012 to 2017. Data was collected from annual reports of selected companies. Institutional Ownership, Family Ownership and Ownership Concentration are considered as independent variables. As the control variables Firm Size and Financial Leverage are taken into account in this study. Risk management is considered as the dependent variable. Risk management was measured by using beta value. Regression analysis was employed to analyze the data. The findings of this study revealed that ownership structure significantly affects on risk management. The results of this study will help entities to articulate and form their ownership structure so as to mitigate and manage the risk of that entity.

Keywords: Agency Theory, Colombo Stock Exchange, Ownership Structure, Risk Management

INTRODUCTION

In the late 19th century, ownership and management of business firms were belonging to same person, the capital provider. The owner of the firm managed whole entity as his or her own wish. Later, the type of business entities gradually widen and it was difficult to manage whole business
by owner sporadically. This emphasised the necessity of managers on behalf of the owners. Owners appoint managers to manage their business entities. This is the point where the separation of ownership has been occurred and it implemented the base for the agency theory (Jensen & Meckling, 1976). An agency relationship exists between the agent and the principal of the business entity. The conflict may arise when both parties concern about their wealth maximization. Managers may make decisions in order to maximize their own wealth and this may not necessarily be in the best interest of the principal. Then, the agency problem will arise. Jensen’s and Meckling’s (1976) original model illustrates how agency cost is occurred due to the agency theory. An important argument in their theory is that external stakeholders are unable to observe managers’ tasks in the entity without bearing any cost. Agency costs are the costs of disagreement between shareholders and business managers, who may not agree on which actions are best for the business (Peavler, 2018). Agency cost can be categorized as an internal cost type relating to the agent and principal due to the misalignment of interest between agent an principal. In a business entity, Principals are the shareholders while managers play the agent role. Shareholders expect to maximize their wealth and they assign managers to do so on behalf of them. But managers try to make their own betterment while reinforcing personal power and wealth. This divergent phenomenon instigates to arise agency cost. Agency cost is an aggregation of monitoring cost, bonding cost and residual cost (Jensen & Meckling, 1976).

Agency theory plays a vital role in corporate governance since all most all business entities suffer from this issue in various dimensions. Corporate governance mechanisms have been articulated to protect the shareholders’ interest. This mechanism assures the protection of shareholder’s interest and adequate return for their investment (Shleifer and Vishny, 1997). Corporate governance concept emphasizes the managers’ responsibility and accountability towards the protection of shareholders’ interest. Good corporate governance result in to improve the country’s economic development. Weak forms of corporate governance structures conduce higher problems of agency costs (Core et al., 1999). Ownership structure is a main aspect of corporate governance mechanism. Ownership Structure plays a vital role in reducing agency cost (Panda and Leepsa, 2017). Jensen’s and Meckling’s views illustrates the ownership structure of an entity which demonstrates how much the company insiders and out siders own. Simply, the ownership structure means the way of distribution of equity among various owners or shareholders. This concept is very much important in corporate governance since it determines managers’ incentives and ultimately
economic efficiency of such entities (Jensen & Meckling, 1976). If business entity does not have a well-organized ownership structure, investors may not lend their money to buy shares in that company. So it will be a risk for the entity. Ownership structure can influence to the firms’ performance whenever a conflict of interest occurs between management and shareholders and/or between controlling and minority shareholders. When managers allure to gain perquisites, it may result in to breach the protection of shareholders’ interest. In the controlling and minority shareholder conflict, controlling shareholders enjoy private benefits by using their controlling power. Shareholders with higher level of shares may use their power to acquire private benefits, which are not enjoyed by other shareholders (Barclay and Holderness, 1989). This may result to leave minor shareholders from the entity. Then it may be a risk for the company because of the decrease of its’ share capital. Solutions for this problem is establishing good corporate governance practices within entity and ensuring well established ownership structure. Theoretically, Block holders (large owners) interfere to reduce the conflict of interest between shareholders and managers. But some researchers found that block holders may arise conflict of interest with minority shareholders (Shleifer and Vishny, 1997).

In this study four ownership structure dimensions have been considered. They are institutional ownership, family ownership and ownership concentration. Many researchers found that, the ownership structure affects the performance of the business entity and the way of forming ownership structure result in to various risk conditions (Hoang et al.,2017; Mollah et al.,2012; Laiho, 2011;Chun et al.,2011; Yammeesri,2003; Core et al.,1999; Berkman and Bradbury,1998). According to the agency theory entities have to face various risks due to the agency problem. Hence the necessity of risk management may be varied as per the form of ownership structure. The purpose of this study is to examine, how various ownership structure dimensions demand the need of risk management in the context of Sri Lanka. Objective of this study is to examine whether there is an impact of institutional ownership, family ownership and ownership concentration on risk management in companies listed on CSE. Similar studies can be found in international context, but it is rear to find similar and up to date studies in Sri Lankan context, so this study tries to fill that contextual gap. The Findings of this study may contribute companies to articulate their ownership structure so as to mitigate the risk. This empirical results will help to conduct future researches, especially in Sri Lankan context.
LITERATURE REVIEW

Ownership Structure

There are various forms of ownership structures can be seen in the today’s business environment. Institutional ownership, family ownership, managerial ownership, private and public ownership and diverse and concentrated ownership are some of them. Different firms have various types of ownership mix. So firms face various risk levels as per ownership structure that they have. Business entities with the form of limited liability are more efficient in risk managing than sole proprietorships and partnerships. Limited liability is an attractive aspect of the corporate form of an entity (Manne, 1967). Ownership is more concentrated when small number of shareholders own the majority of shares of an entity while ownership is dispersed when small number of shares are distributed among large number of shareholders. Demsetz, (1983) found that ownership structure is affected by decisions made by the shareholders. According to the theory, there is a negative relationship between agency cost and ownership share of the primary owner. Primary owners’ incentives to consume perquisites decrease when increase of his ownership share as a result of increment of share of profit. When primary owner appoints an external manager, primary owner has to monitor that external manager so as to reduce the agency cost. Thus, primary owner plays the monitoring role similar to the block holders in larger public corporations.

Institutional Ownership:

In practice most institutional shareholders are profit oriented and they concern more about their investments. So institutional shareholders properly supervise and monitor firm. So firms with higher level of institutional shareholders generally have lower level of agency cost that firms with lower level of institutional shareholders. But literature relating to this relationship appears for both dimensions. Wu and Cui, (2002) found a positive relationship between institutional ownership and performance of the firm. Opposite to that findings, Bhattacharya and Graham, (2007) found that inverse relationship between institutional ownership and performance of the firm. Tsai and Gu, (2007) found that there is no relationship between institutional ownership and risk in the context of United States. Cash Flow measure is positively affected by the institutional ownership (Rashid, 2015).
Management Ownership:

Agency problem emphasizes the conflict of interest between owners and managers due to the separation of ownership and control. Jensen and Meckling,(1976) viewed that an increase in management shareholding result in to reduce the agency problem. Gao and Song, (2008) found that there is a positive relationship between managerial ownership and firm performance in Chinese firms. Tsai et al.,(2009) found that managers always try to protect their wealth and increase their profit portion while monitoring firm’s performance so as to decrease the default risk. Ahmed,(2009) found that higher level of managerial ownership reduces the agency conflict.

Family Ownership:

Single family controls, especially more than fifty percent of firm’s equity necessarily reduce the agency cost (Ghoul et al.,2007). Controlling family fulfils the monitoring role similar to the block holders in corporate entity. But monitoring of family ownerships with high diffusion of ownership shares are less effective comparing to the sole owner monitoring.

Ownership Concentration:

Ownership concentration monitor and supervise managers’ behaviour and performance in order to reduce the agency cost (Florackis,2008;Zeckhauser and Pound,1990; Shleifer and Vishny,1997). Opposite to this findings Hastori et al.,(2015) found that ownership concentration does not affect to agency cost of the firm.

Empirical Findings on Ownership Structure and Risk Management

When examining the literature, most researchers investigated the relationship between ownership structure and agency cost. If agency cost arises in business entity, obviously it will be a risk for the company. So the need of risk management arises when agency cost exists.

Ang et al.,(2002) investigated the measures of agency cost for corporations under different ownership structures by using a sample of 1708 small corporations. Findings revealed that agency cost is significantly higher when an outsider rather than an insider manages the firm and there is a negative relationship between managers’ ownership and agency cost,
Mustapha and Ahmad, (2011) found that managerial ownership has a negative relationship with total monitoring cost as mentioned in agency cost. This study used both primary and secondary data. The sample was 235 companies listed on Bursa Malaysia for the financial year 2006. Multiple regression was used as data analysis technique. This study provides a unique contribution to corporate governance by analysing the effect of ownership structure in relation to agency theory in Malaysian companies. Most previous empirical studies were conducted in the context of western countries and it was unknown that those findings have equal impact in Asian organizations. So the findings of this study can be generalized for Asian entities.

Berkman and Bradbury, (1998) investigated the influence of ownership structure on risk management by using a sample of all firms listed on the New Zealand Stock Exchange in 1994 and all State Owned Enterprises in New Zealand. This sample excludes firms in the financial services sector and foreign firms. The sample consists of 116 listed firms and 33 State Owned Enterprises. The findings of this study proved that government owned organizations have a lower need for risk management, compared to publicly listed firms. The reason was stakeholders are likely to rely on implicit guarantees arising from government ownership. In this study they have mentioned that government owned organizations make less use of financial derivatives to reduce the costs of financial distress and agency conflicts.

Chen et al., (1998) examined the relationship between risk and ownership structure among depository institutions. The initial sample of this study was formed based on the Standard Industrial Classification (SIC) manual. For data analysis they used daily returns of commercial banks, savings institutions and bank holding companies from the Center for Research in Security Prices (CRSP) return files for the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), and the over-the-counter (OTC) market for 1988 to 1993. This process results in a final sample of 1,812 observations, or 302 firms per year. The sample includes 1,566 observations for banks and 246 observations for savings institutions. The findings of this study revealed that there is a negative and significant relationship between managerial ownership and depository institution risk.

Chiang et al., (2015) studied the relationship between ownership structure, board characteristics and default risk in the context of Taiwan. Sample of this study was 438 companies listed in Taiwan Stock Exchange. Data was collected from year 1998 to 2009. Firms in the financial services
industries are omitted when selecting the sample. Researchers have adopted KMV model to estimate the default risk of firms. This model calculates the expected default frequency (EDF) based on a firm’s capital structure, the volatility of its asset returns and the firm’s current asset value. The findings of this study revealed that default risk has a negative relationship with institutional ownership and management share ownership. Furthermore it was found that a high level of shares held by internal shareholders is positively related to default risk.

Ownership structure and risk taking behaviour was examined by Chun et al.,(2011). This study examined the effects of managerial ownership on the risk-taking behavior of Korean and Japanese banks from 1990 to 2000. The results showed that managerial ownership does not affect either the risk or the profit levels of Korean banks. But it was found that there is positive relationship between managerial ownership and total risk of Japanese banks. The coefficients of the interaction term between franchise value and managerial ownership are negative and statistically significant for both the Korean and the Japanese banking industries. This means that an increase in managerial ownership in banks with high franchise values discourages risk-taking behavior. The results confirm the disciplinary role of franchise value on the risk-taking behavior of banks.

Cole et al.,(2011) investigated the implications for risk taking behaviour due to the separation of ownership and management. Data was collected from year 1996 to 2004. As the findings, it was clear that the ownership structures have a significant impact on firms’ risk-taking behavior.

Thomsen and Pedersen,(2000) examined the association between ownership structure and economic performance by using 435 of the largest European companies. Basically researchers have used a data base containing information on ownership structures of the 100 largest nonfinancial companies in 1990 in each of 12 European nations: Austria, Belgium, Denmark, Finland, France, Germany, the United Kingdom, Italy, the Netherlands, Norway, Spain and Sweden. They linked this data base to performance measures for a subsample of 435 companies. Controlling for industry, capital structure and nation effects they found a positive effect of ownership concentration on shareholder value (market-to-book value of equity) and profitability (asset returns), but the effect levels off for high ownership shares. Furthermore it described that the identity of large owners family, bank, institutional investor, government, and other companies has important implications for corporate strategy and performance.
METHODOLOGY

All companies which are listed in Colombo Stock Exchange were the population for this research study. This study eliminates Banks, Finance and Insurance companies since the risk management of these companies are different from non-financial firms. For this study, 30 companies based on the highest market capitalization were selected as the sample. Stratified sampling method was employed in this study. Data was collected from the year 2012 to year 2017 using annual reports of selected companies.

Conceptual Framework

Variables

Three types of variables such as dependent, independent and control have been used for this study. Dependent variables was risk management. As independent variables, institutional ownership,
family ownership and ownership concentration were used. Control variables were firm size and financial leverage.

**Risk Management:**

In this study risk management in the sense the need of risk management for the company. This variable was measured by using beta. Beta is a measure of volatility of security or a portfolio in comparison to the market as a whole. In this study an increase of beta means the need of risk management for the entity. Beta was measured by using daily share price changes of each company listed in CSEin relation to a benchmark equity index; All Share Price Index.

**Institutional Ownership:**

The percentage of institutional ownership was considered. Institutional shareholders always concern about the performance of the company. So they monitor and supervise firm.

**Family Ownership:**

Percentage of ownership of family members was considered. Single family controls, especially more than fifty percent of firm’s equity necessarily reduce the agency cost (Ghoul et al., 2007). Controlling family fulfils the monitoring role similar to the block holders in corporate entity.

**Ownership Concentration:**

Ownership concentration is the diffusion of shares between investors of different companies. Ownership will be more concentrated when the number of shareholders is less. (Mcknight and Weir, 2009).

**Firm Size:**

This was measured by using the logarithm of total assets of company.

**Financial Leverage:**

The ratio of total debt to total equity is measured.
**Research Hypotheses**

Hypothesis 1: There is a significant impact of institutional ownership on risk management.

Hypothesis 2: There is a significant impact of family ownership on risk management.

Hypothesis 3: There is a significant impact of ownership concentration on risk management.

**Research Models**

\[ RM_{it} = \alpha + \beta_1 INSOWN + \beta_1 FMOWN + \beta_1 OWNCON + \beta_2 FSZE + \beta_3 LEV \]

Where,

- \( RM_{it} \) = Need of Risk Management in Year t for Firm i
- \( INSOWN \) = Institutional ownership
- \( FMOWN \) = Family Ownership
- \( OWNCON \) = Ownership Concentration
- \( FSZE \) = Firm Size
- \( LEV \) = Leverage

**DATA ANALYSIS**

**Regression analysis**

The Pooled OLS regression model neglects the cross sections and time series nature of data. Therefore, this study rejects the pooled OLS regression model and pay attention toward other two models. The fixed effect model allows for heterogeneity or individuality among thirty companies by allowing to have its own intercept value. The term fixed effect is due to the fact that although the intercept may differ across companies, but intercept does not vary over time, that is it is time invariant. Random effect model suggest all thirty companies have a common mean value for the intercept. So hypotheses can be built as follows.

\( H_0: \) Random effect model is more appropriate

\( H_1: \) Fixed effect model is more appropriate
Hausman test was employed to test the hypotheses. The table 1 provides the details of Hausman test.

### Table 1: Hausman Test of Cross Section Random Effect

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq statistic</th>
<th>Chi-Sq d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>2.524668</td>
<td>5</td>
<td>0.7728</td>
</tr>
</tbody>
</table>

Since P value is 0.7728 and it is more than 0.05, null hypotheses should be accepted while rejecting alternative hypothesis. So Random Effect model is more appropriate for testing data.

### Table 2: Regression Analysis; Random Effect Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.0182</td>
<td>0.0276</td>
<td>0.5265</td>
</tr>
<tr>
<td>Institutional ownership</td>
<td>-0.0654</td>
<td>0.0354</td>
<td>0.0498</td>
</tr>
<tr>
<td>Family Ownership</td>
<td>-0.0107</td>
<td>0.0082</td>
<td>0.0122</td>
</tr>
<tr>
<td>Ownership Concentration</td>
<td>-0.1419</td>
<td>0.0162</td>
<td>0.0029</td>
</tr>
<tr>
<td>Firm Size</td>
<td>0.0099</td>
<td>0.0043</td>
<td>0.0242</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.0004</td>
<td>0.0004</td>
<td>0.3145</td>
</tr>
<tr>
<td>R- squared</td>
<td>0.4864</td>
<td>F-statistic</td>
<td>6.5523</td>
</tr>
<tr>
<td>Adj. R-squared</td>
<td>0.3396</td>
<td>Prob.(F-statistic)</td>
<td>0.0001</td>
</tr>
<tr>
<td>Durbin- Watson Stat</td>
<td>2.4417</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This model shows the interaction between beta and ownership structure. The R Squared in the regression model indicates that 48.64% of the variation in beta is explained by the variables in the model. So the fitness of the model is only 48.64%. The F-statistics (prob > chi 2) prove the
efficiency of the estimated models at 1% level of significance and the value was 0.0001. Durbin-Watson statistic of 2.44 ensure the unavailability of auto-correlation problem of this model.

According to the table 2, Institutional ownership, Family Ownership and Ownership Concentration have significant impact on beta since these three variables have p values less than 0.05. Institutional ownership variable has a negative coefficient of 0.0654, which means increase of one unit of institutional ownership result in to decrease the beta in 0.0654 units. That means, the increase of institutional ownership affects to decrease the need of risk management of the entity. Family ownership has a negative coefficient of 0.0107, which means increase of one unit of family ownership result in to decrease the beta in 0.0107 units. That means, the increase of family ownership affects to decrease the need of risk management of the entity. Ownership Concentration has a negative coefficient of 0.1419, which means increase of one unit of Ownership Concentration result in to decrease the beta in 0.1419 units. That means, the increase of Ownership concentration affects to decrease the need of risk management of the entity.

Summary of Hypotheses Testing

<table>
<thead>
<tr>
<th>Hypothesis No</th>
<th>Hypothesis</th>
<th>Accept/Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis1</td>
<td>There is a significant impact of institutional ownership on risk management.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hypothesis2</td>
<td>There is a significant impact of family ownership on risk management.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Hypothesis3</td>
<td>There is a significant impact of ownership concentration on risk management.</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

CONCLUSION

As per the findings of this study it was revealed that ownership structure significantly affects to determine the risk of an entity. Results depict that beta value is significantly affected by ownership structure variables. The necessity of risk management is occurred due to the form of ownership structure. Negative coefficient of institutional ownership implies that there is an inverse relationship between institutional ownership and beta of an entity. That means higher the
institutional ownership lower the necessity of risk management (Wu and Cui, 2002; Rashid, 2015). Generally institutional shareholders more likely to supervise and monitor the investing firm and this affects to reduce the agency problem due to close supervision. So firms with lower level of institutional shareholders may exposure to risk due to the availability of agency problem. That kind of firms should aware about such situations and implement necessary procedures so as to mitigate the risk. Negative coefficient of family ownership implies that there is an inverse relationship between family ownership and risk of an entity. That means higher the family ownership lower the necessity of risk management. Family ownership result in to reduce the agency cost since family ownership closely monitor and supervise the firms. Negative coefficient of ownership concentration implies that there is an inverse relationship between ownership concentration and risk of an entity. That means higher the ownership concentration lower the necessity of risk management. A higher level of ownership concentration or more block holders suggest a stronger monitoring power from investors over a firm’s managerial decisions because of the incentives from these owners to proactively safeguard their investment. Owners with significant amount of shares always tend to take aggressive actions, either directly or indirectly, over firm decisions such as the election of board members and replacement of CEO or poor management with their voting power. So large block holders with higher level of ownership concentration have more incentives to monitor the invested firm and it will result in to reduce the agency problems. Ultimately it affects to reduce the risk. Thus, firms with higher level of ownership concentration need lower level of risk management. By considering the findings of current research and empirical findings it is clear that different ownership structures have different types of consequences towards the entity. So firms should try to articulate their ownership structure so as to minimize the risk level and enhance the performance. Sometimes mix of this various ownership structures may have superior consequences than continuing single ownership structure.
REFERENCES


