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Family Ownership and Tunneling Effect in South Asian, Lower-Middle Income Economies

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This research studies the impact of family ownership (FOWN) on tunneling (TUN), while corporate governance (CGI) moderates this relationship. After reviewing the extensive literature, the relationship of family ownership with tunneling and the moderating role of corporate governance has been established. To investigate the empirical status of the hypotheses, data from 198 non-financial firms for 14 years for the period 2006-2019 has been gathered from the Pakistan Stock Exchange and Dhaka Stock Exchange. Generalised Method of Moments (GMM) has been applied to address the problem of endogeneity. The results depict that family ownership has a negative relationship with tunneling (propping). Moreover, corporate governance also shows the moderating role in the influence of family ownership on tunneling. The results of the empirical study provide insight to investors, regulators and policymakers so they may formulate strategies and establish policies to protect the rights of minority shareholders.

Key words: *Tunneling, Family Ownership, Corporate Governance, Lower-Middle Income Economies, Emerging Economies, Frontier Market Indexed.*

Introduction

Tunneling can manifest itself in illegal activities such as "outright theft or fraud" (Johnson, La Porta, Lopez-de-Silanes & Shleifer, 2000, p. 22). The term "tunneling" was originally defined as "the expropriation of minority shareholders in the Czech Republic as in moving assets through an underground tunnel" (Johnson et al., 2000, p. 22). In tunneling, financial resources are transferred to controlling shareholders from a listed company (Johnson et al., 2000) and are commonly termed as principal-principal conflicts (Hu & Sun, 2019).

Legal and regulatory institutions at the country-level took erratic measures for protecting minority investors, which leads to varying tunneling tendencies across the world (Peng & Jiang, 2010). The concentration of corporate control, and weak institutional policies to protect shareholder rights, lead to tunneling (Young, Peng, Ahlstrom, Bruton, & Jiang, 2008; Hu & Sun, 2019). Tunneling from controlling shareholders primarily affects external investors, impacting their investing decisions (Cheung, Rau, & Stouraitis, 2006; Chen, Dong, Tong & Zhang, 2018). Furthermore, tunneling affects the growth and performance of the firms (Cheung et al. 2006). Consequently, it caused a delay in developing the stock market and became the leading cause of the Asian financial crisis in the period 1997-1999 (Johnson, Boone, Breach & Friedman, 2000).

Emerging markets provide a fertile ground for tunneling; hence, it is a burning issue in those economies (Zhang, Yang, Strange & Zhang, 2017). Tunneling is assisted by an unclear and critical information atmosphere that is prevalent in several emerging economies where large and inside shareholders are sometimes in a relatively better position to access information, hence being better informed about the performance of the organisation and having better prediction than the smaller minority investors (Makhija & Patton, 2004).

Tunneling is not only restricted to countries with weak corporate governance, but it may also occur in those countries having a higher standard of corporate governance (Johnson et al., 2000). However, controlling shareholders of firms operating at a low level of corporate governance environment have more chances to tunnel (expropriate) minority shareholders' wealth (Nenova, 2003). Expropriation of the wealth of minority shareholders by majority shareholders is quite harmful, particularly in developing economies (Gilson, Ronald & Gordon, 2003). However, to date, most of the studies conducted on tunneling targeted mainly tunneling activities in countries with high standards of corporate governance, and those in the list of developed countries (Cheung et al.2006; Cheung, Jing, Lu, Rau, & Stouraitis, 2009). In emerging economies, tunneling is a burning issue, as these economies consisting of a weak institutional environment for investor protection (Zhang et al., 2017). However, research in tunneling in developing counties receives little attention (Juliarto, Tower, Van der Zahn, & Rusmin, 2013). Corporate governance contributes to establishing the alignment in managers' and shareholders' interests and causes the reduction of exploitation of minority shareholder's rights (Leuz, Nanda & Wysocki, 2003). Hab, Johan and Muller (2016) found that generally, corporate governance practices may prevent tunneling activities. Whereas, Juliarto et al. (2013) found that corporate governance variables may not explain corporate behaviour in association with tunneling. Hence, the efficiency of corporate governance in relation to tunneling is still limited, and the results are uncertain.

Earlier research has highlighted various tunneling areas that need further deliberation and insight, including the leading causes of agency conflicts and analysis of firm approaches to address tunneling in emerging economies (Chen et al., 2018). Hence, in light of previous research, the expropriation of non-controlling shareholders (minority shareholders) through tunneling activity in emerging and frontier market indexed economies with low corporate governance levels is a topic of interest.

Research problem

This article aims to investigate the impact of family ownership on tunneling. Furthermore, to investigate the moderating role of corporate governance in a relationship of family ownership and tunneling.

This article thus aims at addressing these questions: Is there any role of family ownership on tunneling? Does corporate governance have a moderating role in the relationship of family ownership and tunneling? Do, and can, majority shareholders in family-owned firms protect minority shareholders? What steps have been/ are being taken by the democratic government to ensure minority shareholder’s rights are not violated?

Study Objective

To investigate the impact of family ownership on tunneling and the moderating role of corporate governance between the relationship of family ownership and tunneling.

Research questions

Does family ownership have a relationship with tunneling (propping)?
Does corporate governance play a moderating role in the relationship of family ownership and tunneling?

Significance of the study

This paper contributes to the existing line of research in several ways. Firstly, this study focuses on the impact of family ownership on tunneling in emerging and frontier market indexed economies of the South Asian region, including Pakistan and Bangladesh. Secondly, the role of corporate governance in the relationship between family ownership and tunneling is elaborated. Furthermore, the study results would be fruitful for investors, regulators and policymakers to formulate policies on protecting shareholders' rights.

Literature Review

Controlling shareholders of a company involved in tunneling activities damage the benefits of minority shareholders. Controlling shareholders have more information than other minority shareholders (Kim & Li, 2015; Zhang et al., 2017). This leads to agency conflicts between controlling and minority shareholders and between more and less informed minority investors, which leads to multiple principal-principal agency conflicts (Zhang et al., 2017). Furthermore, large stakeholders and insiders are more well-informed in emerging economies than the minority investors (Makhija & Patton, 2004, cited in Zhang et al., 2017).

The institutional atmosphere is often weak for investors' protection in several emerging economies (Kumar & Zattoni, 2015). Stock markets are usually more dispersed and are less efficient due to informational asymmetrics, weaker investor protection rights, and insider trading (Beny, 2007). Large emerging economies are more volatile, ultimately affecting a firm's behaviours (Sun, Qu, & Liao, 2018). In a family-owned business, the ownership is highly concentrated, which gives strong power to controlling shareholders, so tunneling issues are seen more under family-owned companies. Voting power is more considerable than cash flow rights; therefore, highly concentrated ownership can motivate controlling shareholders to get the benefit of resources at the cost of minority shareholders (Bertrand, Mehta, & Mullainathan, 2002).

Reverse tunneling, or negative tunneling, is known as propping (Riyanto & Toolsema, 2008). Propping is an alternative way, particularly in a family-owned business, in which majority shareholders inject mutual insurance to bring the business out of distress (Khanna & Palepu, 1997). Thus, on one side, majority shareholders who bring the prices of stock to fundamentals by making trading at large scale, give restraint of market to the management, which leads to limiting the tunneling, and on the other side they may get trading benefit by exercising the option of exploitation of their private information and thus utterly support tunneling. However, on the other hand, the literature depicts that propping is the opposite of tunneling, where redistribution of capital takes place within family business group firms to protect distressed group firms. Furthermore, propping is predominant where capital markets are underdeveloped. Resultantly, majority or controlling owners have potential incentives to prop up resources today for better output in the future from firms that are currently distressed (Hoshi, Kashyap, & Scharfstein, 1990; Morck & Nakamura, 2005). In this regard, Peng, John and Yang (2011) elaborated that tunneling or propping may occur in the same firm but in a different time frame. Tunneling tends to reduce corporate performance and equity value (Lemmon and Lins, 2003).

Yiu et al. (2007) measured impaired investor protection and concluded that corporate groups might enjoy private management benefits and this thus explains their excellence in emerging markets. Alhadab (2018) conducted empirical research by taking Jordan as a population, where big audit firms were found not to differ from smaller audit firms in terms of audit quality in contexts where high-quality audits are not under high demand. While many corporate governance codes applied in Jordan and other developing countries are based on what is perceived as effective practices in more-developed countries, the effectiveness of such practices in developing countries with different governance models is questionable (Chanda et al., 2017; Uddin et al., 2017).

Hypotheses Development

Most firms around the globe are under the control or significant influence of an individual shareholder. The sole controller of a firm is typically the founder and/or his or her family. Those firms having such concentrated control of family members are often referred to as 'family firms' (Burkart, Panunzi, and Shleifer, 2003).

A higher concentration of control has been noticed in the literature related to tunneling. Such concentrated control upon a firm's resources, in family business groups, gives strong power to a majority or controlling shareholders. Strong voting power or control larger than ownership (i.e., cash-flow rights) is a source of motivation for controlling or for majority shareholders to tunnel resources within family business groups, at the cost of diverse minority shareholders (Bertrand et al., 2002; La Porta, Lopez-de-Silanes, & Shleifer, 1999). Resultantly, controlling shareholders expropriate the resources available at their disposal. It is quite pertinent to mention here that expropriation of minority shareholders and tunneling issues are relatively high among family firms (Claessens, Djankov, & Lang, 2000). East Asia's geographical area mostly has family-owned businesses, where the largest shareholder, usually the founder and entrepreneur of the company, manages the company (Chu, et al., 2019). Decision-making power depends upon shareholding in any firm. Hence, the largest shareholder in family-owned firms (insiders) may have an influential position to make financial policies (Gugler and Yurtoglu, 2003). This indicates that family-owned businesses do have concentrated ownership, with the power to influence financial policies and decision making.

Yin-Hua and Woidtke (2005) found that when firm boards are controlled and dominated by those affiliated to the controlling family, there would be weak investor protection. Furthermore, it would be quite challenging to determine the degree of separation of management from ownership. They also noticed that firm value is negatively related to board affiliation in family-controlled firms. The Asian region was captured by Miles (2009), who argued that family-run businesses in Asian markets such as Malaysia face the challenge of having good corporate governance practices, as the family-owned business would object to transparency and accountability (Chu, et al., 2019).

H_1: There is a relationship between family ownership and tunneling.

Oman (2001) defines the term corporate governance as private and public organisation consist[ing] of regulations, laws as well as the trade practices that oversee the association between corporate managers and stakeholders. The corporate governance mechanism guarantees that firm assets are used efficiently by managers in creditors' and investors interests, reducing managers' expropriation of resources. Eventually the objective of corporate governance is to enhance the firm’s efficiency and support the growth of the firm, which enhances the investors’ confidence and provides a structure to shareholders for setting their objectives (García-Meca, and García-Sánchez, 2018). However, the efficiency of corporate governance concerning tunneling is still limited, and the results have been uncertain. Hab et al. (2016) found that generally, corporate governance practices may prevent tunneling activities. On the other hand, Juliarto et al. (2013) examined, in general, the variables of corporate governance and did not explain corporate behaviour in association with tunneling.

Shareholder rights can directly help control tunneling (Atanasov, Black, & Ciccotello, 2011; Jung and Chung, 2016), and corporate governance might simultaneously moderate tunneling harmfulness (Wahab, Haron, Lok, Yahya, 2011). Pacces (2011) designates independent directors a crucial role in protecting shareholders against expropriation by insiders. Minority shareholders expect that governance would moderate the harm to them from RPTs (related party transactions) and that governance does so (Black, Kim, Jang, & Park, 2015). In this context, external directors in a concentrated ownership structure economy may be strongly influenced by the reputation effect, as they are considered another monitoring device that should moderate controllers' tunneling acts (Barak and Kapah, 2016).

Weak systems don't defend minority shareholders, and company possession structures promote confiscation expedient behaviour (Aharony et al. 2010). Claessens et al. (2000) argue that the Asia-specific tunneling issue is aided by focused possession similar to weak company governance. Hab et al. (2016) found that generally, corporate governance practices restrict tunneling activities. Juliarto et al. (2013) examined that in general, the variables of corporate governance may not explain corporate behaviour in association with tunneling.

H_2: Corporate governance has a moderating role in the relationship between family ownership and tunneling.

Research Design

Sample selection and Data: This study has focused on two countries, one each from emerging and frontier market indexed economies of the South Asian region as declared by Morgan Stanley Capital International and All Country World Index (MSCI & ACWI). Pakistan has been declared as emerging, while Bangladesh as a frontier market index. Panel data for the period of 14 years from 2006 to 2019 has been retrieved from the Wharton Research Data Services - WRDS, annual reports of firms, and security and exchange commission websites. Financial data has been gathered for 198 firms, which comes to 2772 firm-year observations. The main underlying reason for selecting emerging economies is the existence of unclear and complex information prevalent in the environment, which smoothens the progress of tunneling (Claessens & Fan, 2002; Makhija & Patton, 2004). Moreover, insiders are also more well-informed than the minority investors, especially in emerging economies (Makhija & Patton, 2004, cited in Zhang et al., 2017).

Model Specifications and Estimation Strategy

Tunneling:

Tunneling is the dependent variable, measurable with different proxies. Those proxies are classified as cash-flow tunneling measured through "other receivables", general tunneling, asset tunneling and equity tunneling (Atanasov, Black, & Ciccotello, 2014, p. 1700; Zhang et al, 2017, p. 225). Cash flow tunneling is the diversion of ongoing cash flows from a firm where the majority or controlling shareholder has low rights to the firm where they have higher rights. Equity tunneling refers to the extraction of value via financial transactions that affect ownership claims rather than the firm's operations. Whereas assets tunneling refers to the firm's sale of assets to the controlling shareholders at below-market prices or from the controlling shareholders to the firm at above-market prices. General tunneling is measured through "abnormal accruals" (Zhang et al., 2017, p. 226). In this study, general tunneling is calculated by following Zhang et al., (2017), based on the abnormal accruals estimated from the modified Jones model (1991). We have specified the following econometric model:

$$\frac{Accruals_{it}}{TA_{it}} = \delta_1 + \frac{\delta_2 \Delta Rev_{it}}{TA_{it}} + \frac{\delta_2 PPE_{it}}{TA_{it}} + \varepsilon rror_{it} \qquad \textbf{(1)}$$

Whereas

TA_{it} = total assets in year t, for firm i

ΔRev_{it} = the change in sales revenue in year t for firm i

PPE_{it} = gross property, plant and equipment in year t for firm i

$\boldsymbol{\varepsilon rror_{it}}$= the estimated residual $\boldsymbol{\varepsilon rror_{it}}$ from the above model is **abnormal accruals (ACC)**

Relationship of Family Ownership and Tunneling :

$$Tunneling_{\ it} = \beta_0 + \beta_1 \mathrm{Fown}_{it} + \beta_2 \mathrm{CGI}_{it} + \beta_3 \mathrm{FS}_{it} + \beta_4 \mathrm{Lev}_{it} + \beta_5 \mathrm{Tang}_{it} + \beta_6 \mathrm{FA}_{it} + \varepsilon_{it} \qquad \textbf{(2)}$$

Moderating Role of Corporate governance in the relationship of Family Ownership and Tunneling:

$$Tunneling_{\ it} = \beta_{00} + \beta_7 \mathrm{Fown}_{it} + \beta_8 \mathrm{CGI}_{it} + \beta_9 Fown_{it} * CGI_{it} + \beta_{10} \mathrm{FS}_{it} + \beta_{11} \mathrm{Lev}_{it} + \beta_{12} \mathrm{Tang}_{it} + \beta_{13} \mathrm{FA}_{it} + \varepsilon_{it} \qquad \textbf{(3)}$$

Proxies/Measurement of variables:

The variables and proxies used in this study are enumerated below:

Table 1: Proxies explanation of each variable

Sr. No	Variables		Proxy (Explanation)
1	Tun-Gen	General Tunneling	Abnormal accruals ratio (Error term of equation-1)
2	Tun-CF	Cash Flow Tunneling	Other Receivable
3	Fown	Family Ownership	% age of family ownership
4	CGI	Corporate Governance Index	Index constructed through PCA by taking components as Duality, Board Size, Board Independence, Management size and Board meeting
5	FS	Firm size	Natural log (total assets).
6	Lev	Leverage ratio	Total debt to total assets or equity ratio
7	Tang	Tangibility	Fixed assets to total assets
8	FA	Firm age	Natural log (number of years of incorporation)

Estimation Strategy

We employed the generalised method of moments (GMM) to study the relationship of Family ownership of firms with tunneling with the moderating role of Corporate Governance, due to cross-sectional data and endogenity problem. For analysis panel data has been gathered from 198 firms for 14 years.

Empirical Analysis and Results

Descriptive statistics, Correlation and empirical analysis of this study are as under:

Descriptive Statistics:
Table 2 shows descriptive statistics of dependent, independent and control for Pakistan and Bangladesh. Descriptive statistics include the mean, median and standard deviation.

Table 2: Descriptive statistics of the variables

	ACCTUN	TUNCASH	FOWN	CGI	FS	LEV	TANG	FA
Pakistan Scenario								
Mean	0.00	13.00	0.38	0.01	16.00	29.00	0.64	3.50
Median	0.00	13.00	0.06	- 0.49	16.00	0.67	0.69	3.60
Std. Dev.	1.10	1.60	1.20	1.40	1.90	11.00	0.28	0.75
Bangladesh Scenario								
Mean	0.00	12.56	0.34	0.11	15.01	0.37	0.92	2.87
Median	0.00	12.58	0.21	- 0.05	14.99	0.17	0.94	2.94
Std. Dev.	0.09	2.00	0.76	1.26	1.67	0.55	0.08	0.76

The mean value of family ownership is 0.38 and 0.34, which means average family ownership is 38% and 34% in Pakistan and Bangladesh, respectively. Moreover, average values for other variables have also been mentioned in the above table. However, the variation in data for all variables has also been shown by the standard deviation in both Pakistan and Bangladesh.

Correlation Matrix: Correlation analysis is conducted to find the relationship between the independent variables. The correlation matrix shows all the independent variables used in the study

Table 3: Correlation matrix

	FOWN	CGI	FS	LEV	TANG	FA
Pakistan Scenario						
FOWN	1					
CGI	-0.0997	1				
FS	0.0014	0.4637	1			
LEV	-0.0275	0.0114	0.046	1		
TANG	0.1112	0.2045	0.3913	0.0199	1	
FA	-0.0933	0.0965	0.1467	0.02	-0.0461	1
Bangladesh Scenario						
FOWN	1					
CGI	0.0347	1				
FS	-0.1311	0.3199	1			
LEV	-0.0042	0.1982	0.2833	1		
TANG	-0.0282	0.0759	0.0348	-0.1776	1	
FA	0.0319	0.0752	0.1338	-0.013	-0.1754	1

Table 3 shows the results for correlation analysis. All independent variables have weak relationships with each other in Pakistan as well as the Bangladesh scenario. The weak relationship between explanatory variables indicates that there is no serious issue of multi-co-linearity.

Empirical Analysis: The results of the Generalised Method of Moments (GMM) for Eq (2) and (3) are presented in table 4 and table 5. Equations have been established to study the impact of family ownership on tunneling with the moderating role of corporate governance, and firm size, leverage, tangibility and firm age taken as control variables, in Pakistan and Bangladesh firms listed on the Pakistan stock exchange and Dhaka Stock exchange respectively, over the period from 2006 to 2019.

Generalised Method of Moments (GMM) Results:
The results of GMM in the Pakistan and Bangladesh scenarios has been studied with dual perspectives including family ownership and cash tunneling with the moderating role of corporate governance and family ownership, and general tunneling with the moderating role of corporate governance. Their results are as below:

Table 4: Family ownership, cash tunneling and moderating role of corporate governance

	Pakistan			**Bangladesh**		
Variable	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
C	-8.208006	-4.66395	0	0.701323	2.189517	0.0287
FOWN	-0.17485	-6.73962	0	-0.066287	-5.31758	0
CGI	0.100733	3.469956	0.0005	0.084072	7.331393	0
FOWN*CGI	-0.162585	-5.72847	0	0.045007	3.074889	0.0022
FS	1.257862	12.00457	0	0.85076	79.315	0
LEV	0.001043	2.235418	0.0256	-0.831874	-13.9488	0
TANG	1.839073	8.051243	0	0.602998	2.014203	0.0442
FA	0.022579	0.758246	0.4485	-0.333955	-10.3406	0
Adjusted R-Square	0.955036			0.788316		

Where FOWN= Family Ownership, CGI= Corporate Governance Index, FOWN*CGI= Interaction Term of Moderator, FS=Firm Size, LEV=Leverage, TANG=Tangibility, FA=Firm Age

Family Ownership, Cash Tunneling and the Moderating Role of Corporate Governance in the Pakistan Scenario:

In table 4 the results of the generalised method of moments (GMM) show that the explanatory power of the model is 95%, as the Adjusted R-square is 0.955. The co-efficient of family ownership is -0.174, negative and significant, which means family ownership has a negative influence on cash tunneling (propping). Results are in line with Friedman et al., (2003) and Morck and Nakamura, (2005). Moreover, the Corporate Governance Index (CGI) shows a positive value, indicating that the CGI and tunneling are positively related. CGI is moderating the relationship between family ownership and cash tunneling. The corporate governance index weakens the relationship between family ownership and tunneling as the co-efficient of the interaction term is negative and significant. Results are in line with Nenova (2003), as weak corporate governance increases tunneling activity. Control variables including firm size, leverage and tangibility are showing a positive and significant influence on cash tunneling, while firm age is insignificant.

Family Ownership, Cash Tunneling and the Moderating Role of Corporate Governance in the Bangladesh Scenario:

The explanatory power of the model is 78.8% as the Adjusted R-square is 0.788. The co-efficient of family ownership is -0.066, negative and significant, which means family ownership has a negative influence on cash tunneling (propping). Results in the case of Bangladesh are also in line with past studies conducted by Friedman et al., (2003) and Morck andNakamura, (2005). If family ownership is increased then cash tunneling is decreased. Moreover, the CGI is showing a positive influence on cash tunneling. On the other hand, the CGI is showing a moderating effect in the relationship of family ownership with cash tunneling. The CGI changed the relationship between family ownership and tunneling as the co-efficient of the interaction term is positive and significant. Results are in line with Nenova (2003), as tunneling increased after incorporating the impact of corporate governance. Firm size and tangibility are positive and significant, while leverage and firm age are negative and significant.

Table 5: Family ownership, general tunneling and moderating role of corporate governance

	Pakistan			Bangladesh		
Variable	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
C	2.823455	9.052846	0	0.764144	8.878058	0
FOWN	-0.018454	-2.67611	0.0076	-0.005604	-6.32361	0
CGI	0.044768	3.799593	0.0002	-0.013769	-2.95989	0.0031
FOWN*CGI	-0.012303	-1.92819	0.0541	0.005166	9.473266	0
FS	-0.183375	-9.54642	0	-0.032238	-7.91991	0
LEV	-0.000009	-1.84079	0.0659	0.04647	11.76714	0
TANG	-0.029207	-0.57378	0.5662	-0.373999	-5.694	0
FA	0.019124	1.413496	0.1578	0.017572	3.322271	0.0009
Adjusted R-Square	0.128495			0.087432		

Where FOWN= Family Ownership, CGI= Corporate Governance Index, FOWN*CGI= Interaction term of Moderator, FS=Firm Size, LEV=Leverage, TANG=Tangibility, FA=Firm Age

Family Ownership, General Tunneling and the Moderating Role of Corporate Governance in the Pakistan Scenario:

The results of the generalised method of moments (GMM) are shown in table 5. The explanatory power of the model is 28% as Adjusted R-square is 0.128. The co-efficient of family ownership is -0.018, negative and significant, which means family ownership has a negative influence on general tunneling (propping). Family ownership in Pakistan also showed a negative impact on general tunneling and results are in line with Friedman et al., (2003) and Morck and Nakamura, (2005). Moreover, the CGI is showing a positive influence on general tunneling. The CGI is showing a moderating effect in the relationship of family ownership with general tunneling. The CGI reduces the relationship between family ownership and tunneling as co-efficient of the interaction term is negative and significant at a 10% level of significance. Results are in line with Nenova (2003), as tunneling increased marginally after incorporating the impact of corporate governance, but at a 10% significance level. In control variables, only firm size has a negative and significant influence on general tunneling, while other control variables are showing an insignificant influence on general tunneling.

Family Ownership, General Yunneling and the Moderating Role of Corporate Governance in the Bangladesh Scenario:

The results of the generalised method of moments (GMM) are shown in table 5. The explanatory power of the model is 8.7% as Adjusted R-square is 0.087. The co-efficient of family ownership is -0.005 and significant, which means family ownership has a negative influence on general tunneling. These results are in line with studies conducted by Friedman et al., (2003), Hoshi and Kashyap (2004) and Morck and Nakamura, (2005). The CGI is also showing a positive influence on general tunneling. Whereas the interaction term of The CGI and family ownership is positive, which indicates that corporate governance increases the relationship between family ownership and general tunneling. Results are in line with Nenova (2003), as tunneling increased after incorporating the impact of corporate governance. Firm size and firm age are showing a positive influence on general tunneling, whereas tangibility and leverage have a negative influence on general tunneling.

Conclusion

The ultimate objective of this research was to investigate the influence of family ownership (FOWN) on tunneling, while corporate governance is moderating this relationship. The results depict that family ownership has a relationship with tunneling. Results are in line with the study conducted by Bertrand et al. (2002) in Indian business teams, which provided proof of tunneling, wherever money flows, from companies lower within the pyramid to higher-level companies where the dominant teams have larger possession rights. Moreover, corporate governance is also showing a moderating role.

Discussion

Theory clarifies how investor protection is negatively related to tunneling incentives as well as agency costs (Shleifer and Wolfenzon, 2002). Furthermore, La Porta, Lopez-de-Silanes, Shleifer and Vishny (2002) assume that better investor protection increases the cost of tunneling by controlling shareholders. As a result, a higher level of investor protection produces a greater market value of companies as well as whole financial markets (La Porta et al., 2002). Atanasov, Black, Ciccotello and Gyoshev (2010) provided evidence on how investor protection in emerging markets can severely reduce the incidence of tunneling and increase corporate market reputation. Similarly, the literature also highlights that propping involves re-allocation of capital available within different family firms of the business group for the protection of distressed group firms. It has also been noticed that propping is predominant in those economies which have an underdeveloped market. Hence, those having controlling rights have potential incentives to prop up existing resources of the firm today to get benefits in the future, from firms currently in a distressed position (Hoshi & Kashyap, 2004; Friedman, et al., 2003). Peng, et al. (2011) further elaborated that the same firm may have tunneling and propping but at a different point in times.

Limitations and Future Aspects

In the future, it is suggested that other proxies may be used for measuring tunneling. A sector-wide study may also be conducted to analyse if there is any difference in the behaviour of investors while making investment decisions in different sectors of the economy.

The Way Forward

- Tunneling is considered a burning issue specifically in emerging economies, where the protection of minor shareholders is often weak. It is recommended for policymakers to formulate strict policies to protect the rights of minor shareholders.
- The involvement of family-owned firms (FOWN) may contribute to the enhancement of market discipline but also create problems. It is recommended for policymakers to formulate policies for elimination of an agency problem.
- It is recommended that symmetrical information be made available for all stakeholders to eliminate insider or informed trading.

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