Examining the Influential Role of Family CEO and Investment on Tunneling: A Bound Test Approach

Wajid Alim[1], Madiha Naseem[2], Abdul Ghaffar[3], Muhammad Sohail[4], Ammar ud Din[5] and Shahid Manzoor Shah[6]

Abstract

Tunneling is one of the ferocious corporate frauds mostly practiced in concentrated firms. This creates principal-principal agency conflict which influences the entire company operation and discourages investors. This study examined whether growth opportunities and family chief executive officer (CEO) smooth the way for tunneling practices in concentrated firms. The study analyzed panel quantitative data through a fixed effect model and autoregressive distributed lagged (ARDL) to forecast the short and long-run nexus. The finding shows that an increase in investment for expansion purposes creates a way for outward tunneling, which means that controlling shareholders secure their private benefits while availing growth opportunities. In addition, the study forecasts that these positive nexuses will be sustained significantly in the short and long run. Further, the current study also found that family CEOs tackle and minimize expropriation due to sustaining business, getting growth, and having a good reputation in the market. The study helped the regulatory body design policy, providing thorough information to investors strengthening governance mechanisms, and protecting shareholder's rights. The findings contribute to understanding governance dynamics in concentrated firms and highlight the need for regulatory measures to curb tunneling.

Keywords: Growth Opportunities, Family CEO, Tunneling, Board Size, Concentrated Firms.

Introduction

Concentrated firms possess controlling shareholders who are more influential over the firm's operation and minority party, this creates a conflict of interest between minority and majority shareholders (Jensen & Meckling, 1976). These firms have different features, like the style of ownership, agency conflict, and monitoring system. Usually, the principal-principal conflict in such firms is at its peak which discourages investors and hence declining investment in the country. The majority shareholders of such firms have an ultimate goal of securing benefits by transferring company wealth through the Entrenchment effect (Johnson et al., 2000), also called tunneling (La Porta et al., 2000). Tunneling is the extraction of a firm's assets for the private benefit of the dominant shareholder (Bertrand et al., 2002; La Porta et al., 2003), which may be inward or outward. Inward tunneling or propping, mostly happens for the prevention of the firm in case of

[1]*Assistant Professor, Lahore School of Accountancy and Finance, University of Lahore.*
[2]*MPhil Scholar, Lahore School of Accountancy and Finance, University of Lahore.*
[3]*PhD Scholar, Lahore School of Accountancy and Finance, University of Lahore.*
[4]*Lecturer, Department of Commerce and Finance, GC university Lahore.*
[5]*Lecturer, Hailey College of Commerce, University of the Punjab.*
[6]*PhD Scholar, Lahore School of Accountancy and Finance, University of Lahore.*

delisting or any financial distress (Friedman et al., 2003), while outward tunneling is the drain off of the firm's assets. These practices are illegal but occur in poor-governance countries (Friedman et al., 2003; Johnson et al., 2000) because sometimes they help the firms in investment and in reducing agency problems (Cheung et al., 2006).

Literature witnesses that tunneling leads to the expropriation of minority shareholders through various tactics like salaries, transfer pricing, subsidizing personal loans, and outright theft (Bertrand et al., 2002; Johnson et al., 2000). Previous literature is less focused on the determinant factors that seem to maximize a firm's value but in reality, it deviates funds. Previous studies examined tunneling practices in the developed market which have a different feature from the developing market [8, 9] in the shape of formal and informal institutions. Theoretical wisdom predicts that firms holding cash upsurge principal-principal conflict while preferring investment instead of holding cash depreciate such conflict (Jensen & Meckling, 1976). The most important factor enhancing or diminishing such practices (Tunneling) is the internal governance system of a company. The Chief Financial Officer (CEO) has a critical role in internal governance which influences the entire firm's decisions. Concentrated firms keep family CEOs for monitoring and enhancing performance, but on the other hand family CEOs also deviate funds for controlling shareholder benefits and expropriating minority shareholders through various tactics. Like, investment in growth opportunities results in maximizing shareholder value (Ataünal et al., 2016), but such investment in concentrated firms leads to benefits for the controlling shareholders (Andrade et al., 2001; Liu et al., 2007).

Controlling shareholders are too influential over the entire firm's operation in poorly governed countries due to the lowest risk of penalty which compels controlling shareholders for illegal practice (Becker, 1968), to siphon the firm's assets through related party transactions or pricing (Ullah & Shah, 2015, Shah, 2020). Sometimes these activities create value but mostly they fail in the presence of institutional controlling shareholders (Craninckx & Huyghebaert, 2015). Tunneling benefits the controlling shareholders only when top management is aligned, in case of opposite interest of the management from controlling shareholders and without copying the behavior of their industry peer (Duchin & Schmidt, 2013), investment maximizes the entire firm's value. For the alignment, the controlling shareholder either specifies a good pay policy for the CEO or keeps the family CEO in the firm. In addition to family CEOs, compensation for CEOs in poorly governed countries is not usually based on performance (Firth et al., 2006; Parthasarathy et al., 2006), however, this inflames agency conflict which results in tunneling and distorts the firm's performance (Matsumura & Shin, 2005).

Pakistan is a poorly developed country whose firms face the threat of poor governance mechanisms, low risk of getting caught for tunneling, and political affiliation of the controlling shareholders. All of this results in creating a way for the dominant party to utilize the firm's assets for personal benefits only. Previous studies witnessed the tunneling practice due to governance weakness (Ullah & Shah, 2015), top management involvement, and cash dividend (Anjum & Sadiq, 2012), however, ignored the key factors like family CEO and investment in growth opportunities. So, the current study examined the influential role of family CEOs and investment in growth opportunities on expropriated minority shareholders. The study also aims to forecast and present this association for the both short and long run. The findings will help understand corporate governance dynamics in the non-financial concentrated firms and uncover the need for regulatory measures to curb expropriation practices, ensure fairer wealth distribution, and protect minority shareholders' interests.

Review of Literature and Proposed Hypotheses
Investment in Growth Opportunity and Tunneling
Tunneling distorts a firm's performance, discourages investors, and influences a country's economy negatively. Tunneling may occur through various methods including investment which signals good performance but creates agency conflict as well (Jensen & Meckling, 1976). Fruitful investments comprise mergers and acquisitions, sale growth, and revenue growth, however, investor reacts positively when the targeted firms are listed (Craninckx & Huyghebaert, 2011). Such investment occurred across countries, whose success or failure depends on time-invariant factors (Golubov et al., 2015), CEO expertise (Custódio & Metzger, 2013), and stock market development (Croci & Petmezas, 2010; Aganin & Volpin, 2005). Anecdote confirms that investment is maximizing shareholders' value like Cisco system, Berkshire Hathaway, IBM, General Electric, and Diageo. On the other hand concentrated firms operating in less governed countries have a low risk of penalty which motivates controlling shareholders to tunnel (Becker, 1968). Investment also hurts minority shareholders because controlling shareholders prefer business transactions and diversification which are more fruitful to them at the cost of minority shareholders (Trasobares & Górriz, 2015; Bertrand et al., 2002). This may occur through co-insurance, change in leverage, and wealth transfer (Murray et al., 2017; Agliardi et al., 2016; Leland, 2007), for which the alignment of management is mandatory (Furfine & Rosen, 2011). Moreover, debt-based compensation compels executives to reduce the risky project (Phan, 2014). Controlling shareholders entrenched and involved in freeze-out and creeping acquisition which lead to expropriation but not in countries where investors' protection is strong (Ouyang & Zhu, 2016), however, in most countries, these activities benefit the dominant party only (Bae et al., 2002), because this helps in shifting company asset (Byun et al., 2013), through investment activities (Fracassi & Tate, 2012). Examining these factors in poorly developed economies is too important because these economic activities in such countries fail to contribute to the shareholders' wealth (Andrade et al., 2001; Liu et al., 2007). Additionally, poor governance of a territory along with the political affiliation of concentrated firms' smooths the way for tunneling.
H1: Investment in Growth opportunities relate positively to tunneling practices.

Family CEO and Tunneling
Family CEO is one of the key factors in smoothing ways for tunneling because family CEO aligns with controlling shareholders and are compensated with high remuneration which result to influence firms' performance. Usually, executive pay relates positively to firm performance (Michaud & Gai, 2009), because good pay compels the CEO to hard work which improves financial performance (Sheikh et al., 2018). Within concentrated firms, the conflict of interest between minority and majority shareholders exists (Jensen & Meckling, 1976), where controlling shareholders in alignment with management can achieve their ultimate goal. Therefore, the dominant party uses keeping family CEO and high compensation as tools for securing their benefits at the cost of minority shareholders (Fagernas et al., 2008), and is more sensitive to performance-based pay policy (Firth et al., 2006). Such pay policy compels family CEOs (Shleifer & Vishny, 1986), to benefit controlling shareholders through the use of assets of the member firms as collateral for another, inflated payment for an intangible asset (Bertrand et al., 2002; Johnson, La Porta, et al., 2000), and outstanding corporate loan (Aharony et al., 2010). This happened in most countries like Korea (Kato et al., 2007), Hong Kong (Cheung et al., 2005), and Italy (Barontini & Bozzi, 2011), where the remuneration of the CEO is the prevalent way the drain a firm's assets. Well, the alignment of the dominant party with the executives of the firms benefits

the dominant party more (Luo & Jackson, 2012). Family CEOs have a good compensation policy and low risk which results from weak governance (Cooper et al., 2016) because such CEO looks for benefits as well as for survival in the future. Executives in a such situation easily commit fraud in the interest of the dominant party (Johnson et al., 2009) and are involved in overinvestment or value-destroying projects. Such activities are not specific to certain markets but take place in developed as well as developing markets like Hong Kong (Cheung et al., 2005), Italy (Barontini & Bozzi, 2011), the US and Europe (Vallascas & Hagendorff, 2013). All these confirm that controlling shareholders are too influential and can alter the decision of the board (Morse et al., 2011), with good pay and family CEO can induce the firm board to shift decisions. In Pakistan, concentrated firms also provide the same arena for controlling shareholders to benefits due to weak governance mechanism (Ullah & Shah, 2015), a low risk which encourages management (Anjum & Sadiq, 2012), and family CEO with good pay (Sheikh et al., 2018).
H2: Family CEO has a positive influence on the tunneling practices.

Methodology
The study relies on quantitative panel data, which is collected from a sample of 200 non-financial firms during the period 2000-2015. Usually, data are collected from the audited annual reports of the firms issued after the proper opinion of the external auditor. However, for the triangulation and convergence of data to confirm its validity and reliability, various other sources are also used for data collection like the data portal at the Pakistan Stock Exchange (PSX), balance sheet analysis, and data and warehouse department State Bank of Pakistan (SBP).

Variables
Dependent Variable
The study used Inter-corporate loans as a proxy for tunneling which is measured as the ratio of other receivables to total assets following (Jiang et al., 2010; Liu & Tian, 2012). Using the inter-corporate loan has a positive aspect, the study will be able to enter in-depth and measure tunneling at regular intervals, so it will help to get an accurate response from the auditors, institutional investors, and market regulators. The inter-corporate loan has worse implications for firms, as it benefits the specific party only, as evidenced by Australia (Van Peursem et al., 2007), Asia (Lemmon & Lins, 2003), and Mexico (La Porta et al., 2003).

Independent Variable
Investment Growth Opportunities
The study used investment in growth opportunity as an independent variable which can be measured as the market-to-book ratio following (Andrade et al., 2001; Liu et al., 2007). Growth opportunities (Liu et al., 2007; Sharma & Raat, 2016), have a positive influence on the shareholders' value (Gaspar et al., 2005), but in concentrated firms, this may result in benefits for the dominant party only due to principal-principal conflict of interest.

Family CEO
The current study treats the family CEO as an independent variable to examine its influence on tunneling, which can be measured through a dummy variable that takes the value of 1 if the CEO belongs to the owner family and 0 otherwise (Crespí-Cladera & Pascual-Fuster, 2015; Liu et al., 2014; Michaud & Gai, 2009)

Statistical Tools

Multicollinearity

The presence of perfect multicollinearity is the violation of one of the basic assumptions which shows that the relationship among the values of all explanatory variables is to be exactly linear. This results in the fact that the OLS method cannot estimate the population parameter. The study used a correlation matrix and variance inflation factor for measuring multicollinearity.

Heteroskedasticity

Among assumptions of (CLRM), the error term in the relationship between the dependent and independent variable is constant across all the values.

$$Var(\varepsilon t) = \sigma^2$$

Violation of this assumption causes a severe problem called heteroscedasticity which means that error terms are not constant across all the independent variables and makes the OLS invalid.

Model Specification test (Hausman's test)

For the model selection through Hausman's, the null hypothesis presents that both estimators are consistent but the estimator β_0 is inefficient while the alternative hypothesis states that β_0 is consistent and efficient but the estimator β_1 is inconsistent. In short, this test looks at, if there is a correlation between a unique error and the regressors in the model.

$$H = (\beta^{FE} - \beta^{RE}) \, [Var(\beta^{FE}) - Var(\beta^{RE})]^{-1} (\beta^{FE} - \beta^{RE}) \sim x^2$$

Fixed Effect Model

Fixed effect models also called the least squared dummy variables (LSDV) estimators in which the group means are fixed opposite to random effect. Here Constant is treated as group-specific.

$$Y_{it} = \sigma_{it} + \beta_1 X1_{it} + \beta_2 X2_{it} + - - - - - - - - - - - - - - - + \beta_k Xk_{it} + \varepsilon_{it}$$

Y_{it} is treated as a dependent variable for individual i which is observed at time t, X_{it} is the regressor, alpha (σ_{it}) is the effect of an individual which is unobserved time-invariant and ε_{it} is the error term. The following regression model is to be tested

$$TuNN_{it} = \alpha_0 + \beta_1 IGO_{it} + \beta_2 FCEO_{it} + \beta_3 BI_{it} + \beta_4 FSIZE_{it} + \varepsilon$$

Panel Unit Root Test

Both DF and ADF unit root tests are extended to panel data estimation, so for the presence of unit root, the Im Pesaran and Shin (IPS) test is used which is usually obtained as an average of ADF statistics. IPS test provides separate estimations for each I section, allowing different specifications of the parametric values, the residual variance, and the lag length.

$$\Delta\gamma_{i,t} = \alpha_i + \rho_i\gamma_{i,t-1} + \sum_{k=1}^{n} \emptyset_k \, \Delta\gamma_{i,t-k} + \delta_i t + \theta_t + \mu_{it}$$

$H0: \rho_i = 0 \; for \; all \; i$
$H1: \rho_i < 0 \; for \; at \; least \; one \; i$

The null hypothesis presents that all the series have unit root means while the alternative hypothesis exhibits that some fractions of the series are stationary means that there is no unit root.

$$t^- = {}^1/_N \sum_{i=1}^{N} t_{pi} \; \text{I} \quad \text{In which } t_{pi} \text{ is the individual t statistics.}$$

Panel Cointegration Test

The primary issue in the panel cointegration is spurious regression that occurred in the presence of non-stationarity. The best-known tests for cointegration are based on the Engle and Granger, cointegration relationship, in which the analysis consists of a standard ADF test on the residuals μt.

$$\gamma_{i,t} = \rho e_{i,t-1} + \sum_{j=1}^{n} \emptyset j \, \Delta e_{i,t-j} + \mu_{it}$$

Panel Auto regressive Distribution Lag (ARDL)

ARDL is a statistical co-integration technique that follows the ordinary least square (OLS) estimation procedure for cointegration to present the long and short-run coefficients simultaneously. ARDL was found to be the best econometric technique compared to others.

$$TUN = f(IGO, FCEO, BS, BI)$$

$Ho: \alpha = \beta1 = \beta2 = \beta3 = \beta4$
$H1: \alpha \neq \beta1 \neq \beta2 \neq \beta3 \neq \beta4 \neq \beta$

Analysis and Result

Table 1: Result of Summary Statistics of all variable used

Variable	Obs	Mean	Std. Dev	Min	Max
TUN	3200	0.0345874	0.051729	0.000005	0.660345
IGO	3200	7.843033	1.700583	0	13.25894
FCEO	3200	0.503125	0.5000684	0	1
BI	3200	0.3698093	0.3114849	-0.375	1
BS	3200	8.067187	1.760829	0	16

Table (1) presents an average value of Tunneling (0.0345874) having a standard deviation of (0.051729) also carrying a minimum (0.000005) and a maximum value of (0.660345). IGO carries an average value of (7.843033) having the lowest (0) and highest value (13.25894), the standard deviation of the said variable is (1.700583). The average value of Family CEO is (0.503125), having the lowest (0) and highest values (1), while the standard deviation is (0.5000684). The mean values of board size and board independence are (8.067187) and (0.3698093), having minimum (0) (-0.375) and maximum values (16) (1), while the standard deviation is (1.760829) and (0.3114849).

Table 2: Result for Exact linear relationship (Correlation Matrix)

	TuNl	IGO	BI	FCEO	BS
TuNl	1.0000				
IGO	0.0896	1.0000			
BI	0.0111	-0.0236	1.0000		
FCEO	-0.139	-0.1257	-0.0498	1.0000	
BS	0.0682	0.2952	0.0306	-0.1369	1.000

Table 2 disclosed results for the presence of an exact linear relationship among all variables used. It is clear that none of the values among all exceed (90%) which indicates the existence of perfect

multicollinearity, so all variables are free from the violation of the basic assumptions.

Table 3: Variance Inflation Factor (VIF)

Variable	VIF	1/VIF
IGO	*1.30*	0.769108
FCEO	1.05	0.954061
BS	*1.13*	0.885534
BI	1.01	0.989406
Mean VIF	**1.12**	

Table 3, disclosed the absence of severe multicollinearity among variables as the value of each variable falls in the range of imperfect correlation interpreted by the rule of thumb. According to the rule of thumb, the value of VIF ranges from 1 to upward, so values falling below 5 present no severe correlation among variables while values increasing from 5 must be considered.

Table 4: Results for the detection of Heteroskedasticity/ Breusch Pagan test

Chi-Square Statistic	Probability
10.18	0.1172

Table 4, shows the probability value (0.1172) is more than the significance value (0.05) which indicates that the null hypothesis cannot be rejected which states that there is constant variance or presence of homoscedasticity, and rejects the alternative hypothesis of heteroskedasticity.

Table 5: Result of the autocorrelation (Breusch Godfrey Test)

Chi-Square Statistic	Probability
9.87	0.1329

The result exhibits that the probability value (0.1329) is more than the significance value (0.05) which clearly shows that the null hypothesis of no serial correlation cannot be rejected, which means that the entire data used in the study is free from the serial correlation issue and obeying the basic assumption of the classical linear regression model.

Table 6: Result of Model Specification Test/ Hausman's' specification

Chi-Square Statistic	Probability
16.08	0.0029

Table 6, exhibits that the probability value (0.0029) is less than the significance value (0.05) which indicates that the null hypothesis of the study can be rejected which presents that the random effect model is appropriate while accepting the alternative hypothesis that the fixed effect model is more suitable and advantageous.

Table 7: Result of the Fixed Effect Model

TUN	Coef	Std Error	T	Prob
IGO	0.034407	0.0143147	2.40	0.016**
FCEO	-0.238169	0.0264582	-9.00	0.000***
BS	0.004721	0.0078778	0.60	0.549
BI	-0.013374	0.0418351	-0.32	0.749
C	-3.03468	0.0881149	-34.44	0.000

** Significant at 5 %, and *** significant at 1 %, R2 (0.2448), Adjusted R^2 (0.2432), F-Probability, (0.000)

Table 07, exhibits the results of the fixed effect model. Both FCEO and IGO were found significant concerning tunneling practices. IGO is statistically significant (0.016) and in positive (0.034407) relation to the tunneling practice, while family CEO is also statistically significant (0.000) and has a negative relationship to tunneling.

Table 8: Result of the IM, Pesaran, and Shin panel unit root test

Variable	t-Stat	Prob	Conclusion
TUN	-35.999*	0.0000	I(0)
IGO	-34.785*	0.0000	I(0)
FCEO	-5.7871*	0.0000	I(0)
BS	-4.5312*	0.0000	I(0)
BI	-5.1994*	0.0000	I(0)

*, significant at 1%

Following (Bildirici & Kayıkçı, 2013; Salim et al., 2014), this study also used the Pesaran test based on the pair-wise correlation coefficient of the OLS residuals which is obtained from individual standard ADF regression.

Table 8, presents that the probability value for each variable is less than the significance value (0.05) which states that data is free from the unit root and is stationary. This results smooth way for short and long-run relationships through panel cointegration and panel ARDL.

Table 9: Result of the Panel Cointegration Test/ Kao test

	t-statistics	Probability
ADF	-7.332162	0.0000
Residual variance	1.048991	
HAC variance	0.335906	

Table 9, presents that the value of the Augmented Dickey-Fuller (ADF) t statistics is much less than the critical value which states that there is cointegration exists in the variables set used in the study.

Table 10: Auto regressive Distributed Lagged (ARDL): Co-integrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(IGO)	0.034557	0.013803	2.503526	0.0123
D(FCEO)	-0.006746	0.026565	-0.253935	0.7996
D(BS)	0.017696	0.015149	1.168146	0.2428
D(BI)	0.061862	0.042475	1.456444	0.1454
CointEq(-1)	-1.024131	0.018235	-56.164376	0.0000

Long Run Coefficient

Variable	Coefficient	Std. Error	t-Statistic	Prob.
IGO	0.033743	0.013488	2.501783	0.0124
FCEO	-0.006587	0.025940	-0.253927	0.7996
BS	-0.002290	0.007679	-0.298190	0.7656
BI	0.060405	0.041464	1.456795	0.1453
C	-3.210660	0.094283	-34.053592	0.0000

Table 10, shows that investment in growth opportunities is positively and statistically significant to tunneling for the short term as well as for the long run, which means that variation in the firm's investment in growth opportunities significantly influences illegal practice. Family CEO is the insignificant factor in nexus with tunneling for the short run as well as for the long run.

Table 11: Result of the Bound ARDL Cointegration Test

| Significance	Lower Bound I(0)	Upper Bound I(1)
10%	*1.95*	3.06
5%	2.22	3.39
2.5%	2.48	3.7
1%	2.79	4.1
F-Statistics	**349.7179**	

The f-statistics value of the bound test confirms the long-run association of endogenous variables to the exogenous variables. Based on the outcome, the result presents that there is clear evidence for the long-run association of tunneling to the other determinant factors. Therefore, the alternative hypothesis is accepted. $H1$: $\alpha \neq \beta1 \neq \beta2 \neq \beta3 \neq \beta4 \neq \beta5 \neq \beta6 \neq \beta7 \neq \beta$Confirming long run cointegration exists between tunneling and other sets of variables.

Table 12: Data Normality Test/ Result of the Jarque-Bera Test

Descriptive	
Sample	*2000-2015*
Observation	3200
Minimum value	-2.088124
Maximum value	2.379491
Mean	2.83e-18
Median	0.007081
Standard deviation	0.686078
Skewness	0.0005
Kurtosis	3.036800
Jarque-Bera	0.183923
Probability value	0.912140

Table 12 presents that the probability value (0.912140) is more than the significance value (0.05) which leads to accepting the null hypothesis that the data is normally distributed. The table exhibits that the skewness value is near zero (0.0005), while the kurtosis value is above three (3.036800), so both of the values confirm that data is normally distributed. The normality of data can also be proven through the histogram below.

Figure 1: Histogram for Normal distribution of Data
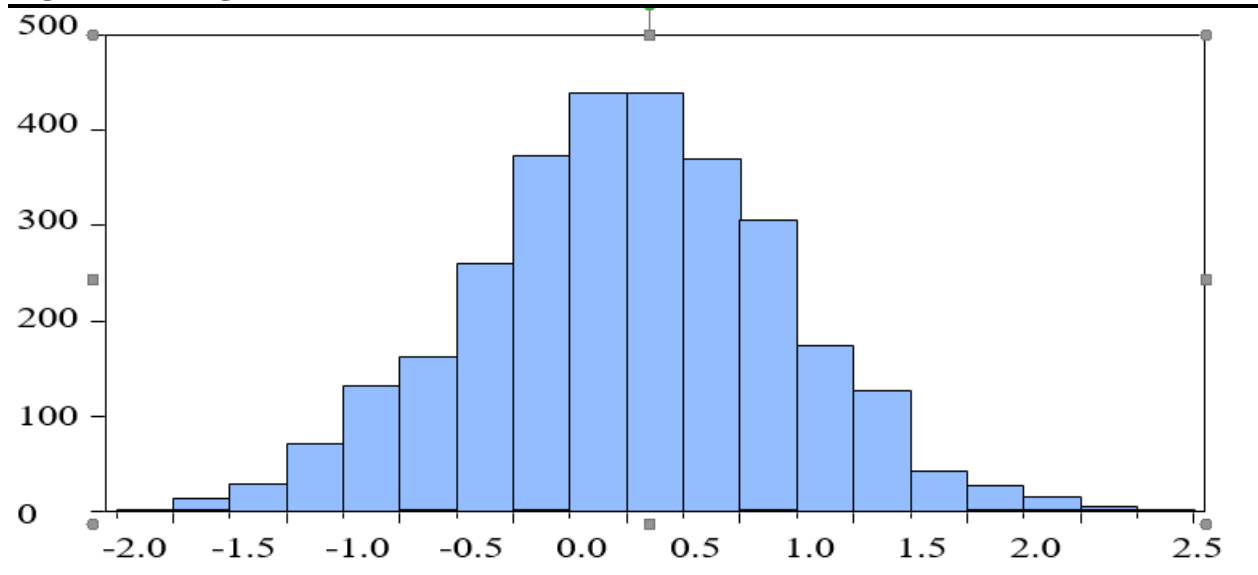
Discussion

An increase in investment for availing growth opportunities results in tunneling due to the conflict of interest within the concentrated firms (Jensen & Meckling, 1976). Because controlling shareholders are bigwigs who utilize their strength to deviate from the firm's assets. Most of the firms focused on diversification to sustain in the market, maximize their access to capital, and minimize financial barriers. However, in concentrated firms, the dominant party makes such investments to deviate funds for their benefit (Trasobares & Górriz, 2015; Bertrand et al., 2002). The dominant party used various tactics like financing these investments on debt which is the main tool for tunneling as it increases cash surplus with no risk of dilution which can easily be exploited. (Agliardi et al., 2016; Leland, 2007). Controlling shareholders also used to align their interests with executives through family CEO and good pay policy (Furfine & Rosen, 2011). But in contrast, a family CEO is sensitive to the firm's performance and hence creates obstacles for suchillegal practices as found in the current study. Family CEO enhances internal governance and keepsan eye on sustaining the firm's performance. Moreover, executing successful growth opportunitiesdepends on various factors (Imbierowicz & Wahrenburg, 2013), Which may not easily exist liketime-variant (Golubov et al., 2015), CEO expertise (Custódio & Metzger, 2013), and the stock market to which the political condition and economic development are the main contributors (Aganin & Volpin, 2005). Controlling shareholders also practice making transactions with friendscollogue, and family members to create wealth illegally through pricing or exploiting less valuableprojects (Fracassi & Tate, 2012). They also exercise creeping acquisition which maximizes the risk of expropriation. Moreover, this risk can be minimized through shareholders' protection (Ouyang & Zhu, 2016). Most shareholders are not well protected and benefit from controllingshareholders only

(Bae et al., 2002). In Pakistan, weak governance mechanisms, political affiliation, and low risk of penalty contribute to tunneling which discourages investors (Anjum &Sadiq, 2012; Ullah & Shah, 2015). The study opposes the argument that these activities usually maximize minority shareholders' wealth (Croci & Petmezas, 2010; Sharma & Raat, 2016; Craninckx & Huyghebaert, 2015). Usually, firms make an investment that maximizes the overallvalue of the firms as it is the main aim of the firms (Bates et al., 2006; Lowinski et al., 2004; Caiazza & Volpe, 2015).

The negative nexus between family CEO and tunneling supports the argument that the CEO is the most powerful entity in the firm and can alter any decision (Firth et al., 2006; Parthasarathy et al., 2006). Literature also witnessed that the CEO has no role in the firm. (Balafas & Florackis, 2014), however, in most concentrated firm's CEO is the prevalent factor for the entire firm's performance and is highly compensated for utilizing his skill, minimizing illegal practices, ensuring investors' protection, and maximizing the firm's value (Aguilera & Cuervo-Cazurra, 2004; Sanchez-Marin & Samuel Baixauli-Soler, 2014; Smirnova & Zavertiaeva, 2017; Tsao et al., 2015). Similarly,in most of the concentrated firms, controlling owners take the key position like CEO. So, in this situation, the CEO himself enhances the monitoring of the firms and reduces the chance of illegal practices to protect the shareholders (Sánchez-Marín et al., 2017). Moreover, establishing a competitive role in the peer industry strengthens sustainability in the market, and reduces the expected chance to be a part of the tunneling to benefit the controlling shareholders (Kato & Long, 2006; Wang & Xiao, 2011). The result is opposed to the previous study. (Young & Tsai, 2008), that family CEO along with good pay creates agency conflict. Controlling shareholders usually pay their CEO for tunneling practices (Fagernas et al., 2008). However both low and high-pay policies create issues (Crespí-Cladera & Pascual-Fuster, 2015; Jiang et al., 2010). In common family CEO with good pay is a clear indication of tunneling at the cost of minority shareholders. (Luo & Jackson, 2012). These conditions minimize the risk of getting caught doing wrong and enhance the benefits of committing a crime like using power for their benefit as presented by the economic theory of crime (Becker, 1968).

Conclusion

The joint stock company in the shape of a concentrated ownership firm faces different agency conflicts (principal-principal) worldwide. Controlling shareholders of the firms want to maximize their wealth legally through the alignment effect or utilize their power through the entrenchment effect to expropriate minority shareholders. The current study aims to uncover the influence of investment growth opportunities and family CEOs on tunneling in non-financial firms. The result of the fixed effect model presents that the positive association between the firm's investment in growth opportunities and tunneling practice is due to various reasons. Controlling shareholders have strong ties with colleagues, friends, and family members so, through investment controlling shareholders can easily extract the firm's assets for their benefit through pricing. The study also finds that this expropriation of minority shareholders could be weakened with the existence of a family CEO. The family CEO keeps monitoring and discouraging such illegal practices to protect minority shareholders and maximize shareholder wealth. The study provides suggestions to the regulatory body for protecting minority shareholders' rights by looking at the severity of these factors. This will encourage investors to invest which plays a vital role in the economic development of the country. Moreover, the current study will share thorough information with investors regarding the key factors like investment and Family CEO concerning tunneling. This information will be beneficial for investors during investment decisions in certain firms. Moreover, this thorough information will able investors to select the less risky and more fruitful portfolios

which will ultimately contribute to their wealth maximization. The current study also provides recommendations to the regulatory body to keep a check and monitor these activities in each registered firm to operate smoothly and protect investors to boost the economy. As findings disclosed family CEOs have a mitigating effect on expropriation, especially in firms with attractive opportunities, therefore, it may be fruitful for companies to consider family members in management roles. Such involvement can enhance oversight and ensure that growth investments are aligned with the firm's long-term goals.

References

- Aganin, A., & Volpin, P. (2005). The history of corporate ownership in Italy. In *A history of corporate governance around the world: Family business groups to professional managers*(pp. 325-366). University of Chicago Press.
- Agliardi, E., Amel-Zadeh, A., & Koussis, N. (2016). Leverage changes and growth options in mergers and acquisitions. *Journal of Empirical Finance*, *37*, 37-58.
- Aguilera, R. V., & Cuervo-Cazurra, A. (2004). Codes of good governance worldwide: what is thetrigger? *Organization Studies*, *25*(3), 415-443.
- Aharony, J., Wang, J., & Yuan, H. (2010). Tunneling as an incentive for earnings management during the IPO process in China. *Journal of Accounting and Public Policy*, *29*(1), 1-26.
- Andrade, G., Mitchell, M., & Stafford, E. (2001). New evidence and perspectives on mergers. *Journal of economic perspectives*, *15*(2), 103-120.
- Anjum, M. J., & Sadiq, M. (2012). Dividend Preferences: Evidence from Panel Data. *World Applied Sciences Journal*, *19*(5), 659-665.
- Ataünal, L., Gürbüz, A. O., & Aybars, A. (2016). Does High Growth Create Value for Shareholders? Evidence from S&P500 Firms. *European Financial and Accounting Journal*, *2016*(3), 25-38.
- Bae, K. H., Kang, J. K., & Kim, J. M. (2002). Tunneling or value added? Evidence from mergersby Korean business groups. *The Journal of Finance*, *57*(6), 2695-2740.
- Balafas, N., & Florackis, C. (2014). CEO compensation and future shareholder returns: Evidencefrom the London Stock Exchange. *Journal of Empirical Finance*, *27*, 97-115.
- Barontini, R., & Bozzi, S. (2011). Board compensation and ownership structure: empirical evidence for Italian listed companies. *Journal of Management & Governance*, *15*(1), 59- 89.
- Bates, T. W., Lemmon, M. L., & Linck, J. S. (2006). Shareholder wealth effects and bid negotiationin freeze-out deals: Are minority shareholders left out in the cold? *Journal of financial economics*, *81*(3), 681-708.
- Becker, G. S. (1968). Crime and punishment: An economic approach. In *The economic dimensionsof crime* (pp. 13-68). Springer.
- Bertrand, M., Mehta, P., & Mullainathan, S. (2002). Ferreting out tunneling: An application to Indian business groups. *The Quarterly Journal of Economics*, *117*(1), 121-148.
- Bildirici, M. E., & Kayıkçı, F. (2013). Effects of oil production on economic growth in Eurasian countries: Panel ARDL approach. *Energy*, *49*, 156-161.
- Byun, H.-Y., Choi, S., Hwang, L.-S., & Kim, R. G. (2013). Business group affiliation, ownershipstructure, and the cost of debt. *Journal of Corporate Finance*, *23*, 311-331.
- Caiazza, R., & Volpe, T. (2015). M&A process: a literature review and research agenda. *BusinessProcess Management Journal*, *21*(1), 205-220.
- Cheung, Y.-L., Rau, P. R., & Stouraitis, A. (2006). Tunneling, propping, and expropriation:

evidence from connected party transactions in Hong Kong. *Journal of financial economics*, *82*(2), 343-386.

- Cheung, Y.-L., Stouraitis, A., & Wong, A. W. (2005). Ownership concentration and executive compensation in closely held firms: Evidence from Hong Kong. *Journal of Empirical Finance*, *12*(4), 511-532.
- Cooper, M., Gulen, H., & Rau, P. R. (2016). *Performance for pay? The relation between CEO incentive compensation and future stock price performance.*
- Craninckx, K., & Huyghebaert, N. (2011). Can stock markets predict M&A failure? A study of European transactions in the fifth takeover wave. *European Financial Management*, *17*(1), 9-45.
- Craninckx, K., & Huyghebaert, N. (2015). Large shareholders and value creation through corporate acquisitions in Europe. The identity of the controlling shareholder matters. *European Management Journal*, *33*(2), 116-131.
- Crespí-Cladera, R., & Pascual-Fuster, B. (2015). Executive directors' pay, networks and operating performance: The influence of ownership structure. *Journal of Accounting and Public Policy*, *34*(2), 175-203.
- Croci, E., & Petmezas, D. (2010). Minority shareholders' wealth effects and stock market development: Evidence from increase-in-ownership M&As. *Journal of banking & finance*, *34*(3), 681-694.
- Custódio, C., & Metzger, D. (2013). How do CEOs matter? The effect of industry expertise on acquisition returns. *The Review of Financial Studies*, *26*(8), 2008-2047.
- Duchin, R., & Schmidt, B. (2013). Riding the merger wave: Uncertainty, reduced monitoring, and bad acquisitions. *Journal of financial economics*, *107*(1), 69-88.
- Fagernas, S., Sarkar, P., & Singh, A. (2008). Legal origin, shareholder protection and the stock market: new challenges from time series analysis. *The economics of corporate governance and mergers*, *20*.
- Firth, M., Fung, P. M., & Rui, O. M. (2006). Corporate performance and CEO compensation in China. *Journal of Corporate Finance*, *12*(4), 693-714.
- Fracassi, C., & Tate, G. (2012). External networking and internal firm governance. *The Journal of Finance*, *67*(1), 153-194.
- Friedman, E., Johnson, S., & Mitton, T. (2003). Propping and tunneling. *Journal of Comparative Economics*, *31*(4), 732-750.
- Furfine, C. H., & Rosen, R. J. (2011). Mergers increase default risk. *Journal of Corporate Finance*, *17*(4), 832-849.
- Gaspar, J.-M., Massa, M., & Matos, P. (2005). Shareholder investment horizons and the market for corporate control. *Journal of financial economics*, *76*(1), 135-165.
- Golubov, A., Yawson, A., & Zhang, H. (2015). Extraordinary acquirers. *Journal of financial economics*, *116*(2), 314-330.
- Imbierowicz, B., & Wahrenburg, M. (2013). Wealth transfer effects between stockholders and bondholders. *The Quarterly Review of Economics and Finance*, *53*(1), 23-43.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, *3*(4), 305-360.
- Jiang, G., Lee, C. M., & Yue, H. (2010). Tunneling through intercorporate loans: The China experience. *Journal of financial economics*, *98*(1), 1-20.
- Johnson, S., Boone, P., Breach, A., & Friedman, E. (2000). Corporate governance in the Asian

financial crisis. *Journal of financial economics*, *58*(1-2), 141-186.

- Johnson, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2000). Tunneling. *American economic review*, *90*(2), 22-27.
- Johnson, S. A., Ryan, H. E., & Tian, Y. S. (2009). Managerial incentives and corporate fraud: Thesources of incentives matter. *Review of Finance*, *13*(1), 115-145.
- Kato, T., Kim, W., & Lee, J. H. (2007). Executive compensation, firm performance, and Chaebolsin Korea: Evidence from new panel data. *Pacific-Basin Finance Journal*, *15*(1), 36-55.
- Kato, T., & Long, C. (2006). Executive compensation, firm performance, and corporate governance in China: Evidence from firms listed in the Shanghai and Shenzhen Stock Exchanges. *Economic development and Cultural Change*, *54*(4), 945-983.
- Kemal, A. R. (2002). Regulatory framework in Pakistan. *The Pakistan Development Review*, *41*(4), 319-332.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of financial economics*, *58*(1), 3-27.
- La Porta, R., Lopez-de-Silanes, F., & Zamarripa, G. (2003). Related lending. *The Quarterly Journal of Economics*, *118*(1), 231-268.
- Leland, H. E. (2007). Financial synergies and the optimal scope of the firm: Implications for mergers, spinoffs, and structured finance. *The Journal of Finance*, *62*(2), 765-807.
- Lemmon, M. L., & Lins, K. V. (2003). Ownership structure, corporate governance, and firm value:Evidence from the East Asian financial crisis. *The Journal of Finance*, *58*(4), 1445-1468.
- Liu, H.-H., Chen, T.-Y., & Pai, L.-Y. (2007). The influence of merger and acquisition activities on corporate performance in the Taiwanese telecommunications industry. *The Service Industries Journal*, *27*(8), 1041-1051.
- Liu, Q., & Tian, G. (2012). Controlling shareholder, expropriations and firm's leverage decision: Evidence from Chinese Non-tradable share reform. *Journal of Corporate Finance*, *18*(4), 782-803.
- Liu, X., Lu, J., & Chizema, A. (2014). Top executive compensation, regional institutions and Chinese OFDI. *Journal of World Business*, *49*(1), 143-155.
- Lowinski, F., Schiereck, D., & Thomas, T. W. (2004). The effect of cross-border acquisitions on shareholder wealth—evidence from Switzerland. *Review of Quantitative Finance and Accounting*, *22*(4), 315-330.
- Luo, Y., & Jackson, D. O. (2012). CEO compensation, expropriation, and the balance of power among large shareholders. In *Advances in financial economics* (pp. 195-238). Emerald Group Publishing Limited.
- Matsumura, E. M., & Shin, J. Y. (2005). Corporate governance reform and CEO compensation: Intended and unintended consequences. *Journal of Business Ethics*, *62*(2), 101-113.
- Michaud, D., & Gai, Y. (2009). *CEO compensation and firm performance*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1531673
- Morse, A., Nanda, V., & Seru, A. (2011). Are incentive contracts rigged by powerful CEOs? *TheJournal of Finance*, *66*(5), 1779-1821.
- Murray, B., Svec, J., & Wright, D. (2017). Wealth transfer, signaling and leverage in M&A. *International Review of Financial Analysis*, *52*, 203-212.
- Ouyang, W., & Zhu, P. (2016). An international study of shareholder protection in freeze-out M&A transactions. *International Review of Financial Analysis*, *45*, 157-171.

- Paligorova, T., & Xu, Z. (2012). Complex ownership and capital structure. *Journal of Corporate Finance*, *18*(4), 701-716.
- Parthasarathy, A., Menon, K., & Bhattacherjee, D. (2006). Executive compensation, firm performance and governance: an empirical analysis. *Economic and Political Weekly*, 4139-4147.
- Phan, H. V. (2014). Inside debt and mergers and acquisitions. *Journal of Financial and Quantitative Analysis*, *49*(5-6), 1365-1401.
- Salim, R. A., Hassan, K., & Shafiei, S. (2014). Renewable and non-renewable energy consumption and economic activities: Further evidence from OECD countries. *Energy Economics*, *44*, 350-360.
- Sánchez-Marín, G., Meroño-Cerdán, Á. L., & Carrasco-Hernández, A. J. (2017). Formalized HRpractices and firm performance: an empirical comparison of family and non-family firms. *The International Journal of Human Resource Management*, 1-27.
- Sanchez-Marin, G., & Samuel Baixauli-Soler, J. (2014). CEO reputation and top management team compensation: The moderating role of corporate governance. *Management Decision*, *52*(3), 540-558.
- Sharma, A., & Raat, E. (2016). Acquiring control in emerging markets: Foreign acquisitions in Eastern Europe and the effect on shareholder wealth. *Research in International Business and Finance*, *37*, 153-169.
- SHAH, S. M. . (2020). Corporate Governance And Firm Level Characteristics Of Sustainability: Evidence From Non-Financial Firms Operating In The USA. *Bulletin of Business and Economics (BBE)*, *9*(2), 92-100.
- Sheikh, M. F., Shah, S. Z. A., & Akbar, S. (2018). Firm performance, corporate governance and executive compensation in Pakistan. *Applied economics*, *50*(18), 2012-2027.
- Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of political Economy*, *94*(3, Part 1), 461-488.
- Smirnova, A. S., & Zavertiaeva, M. A. (2017). Which came first, CEO compensation or firm performance? The causality dilemma in European companies. *Research in International Business and Finance*, *42*, 658-673.
- Trasobares, A. H., & Górriz, C. G. (2015). Family control and diversification: empirical evidence for business groups. Global Conference on Business &Finance Proceedings,
- Tsao, S.-M., Lin, C.-H., & Chen, V. Y. (2015). Family ownership as a moderator between R&D investments and CEO compensation. *Journal of Business Research*, *68*(3), 599-606.
- Ullah, H., & Shah, A. (2015). Related Party Transactions and Corporate Governance Mechanisms:Evidence from Firms Listed on the Karachi Stock Exchange.
- Vallascas, F., & Hagendorff, J. (2013). CEO bonus compensation and bank default risk: evidencefrom the US and Europe. *Financial Markets, Institutions & Instruments*, *22*(2), 47-89.
- Van Peursem, K. A., Zhou, M., Flood, T., & Buttimore, J. (2007). Three cases of corporate fraud:an audit perspective.
- Wang, K., & Xiao, X. (2011). Controlling shareholders' tunneling and executive compensation: Evidence from China. *Journal of Accounting and Public Policy*, *30*(1), 89-100.
- Young, C.-S., & Tsai, L.-C. (2008). The sensitivity of compensation to social capital: Family CEOs vs. nonfamily CEOs in the family business groups. *Journal of Business Research*, *61*(4), 363-374.