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Tunneling and Propping through Related Party Transactions in Pakistani Family Business Groups

Shahid Hussain[1], Nabeel Safdar[2], Muhammad Abbas[3]

Abstract

The aim of this study is to analyze the agency issues like tunneling and propping while examining the impact of Related Party Transactions (RPTs) in firms with respect to family business groups of Pakistan.This study used a sample of 326 non-financial firms listed on Pakistan Stock Exchange in the period from 2008 to 2013 by examination of over four thousand five hundred RPTs. For data analysis, panel regression models with both firm and year fixed effects as well as logit model are applied.The findings depict that controlling shareholder in firms affiliated with family business groups mostly tunnel resources through cash payments and trade of goods & services and prop up resources through cash receipts transactions. The study also finds that tunneling related transactions are more significant in firms that have larger size, market value and other receivables balances. Whereas, propping related transactions are dominant in highly leveraged firms with lower return on assets.This study is limited to Pakistani nonfinancial sector. The results implied that interests of minority shareholders are considerably affected by the hidden operations of the majority shareholders in family business group firms. The minority shareholders need to be more cognizant of the family business group firms' ownership structures, board members, directors' shareholding and related party transactions.This study provides new insights on 'propping' besides 'tunneling' in Pakistani family-owned companies, which has received little attention in the context of emerging economies, and Pakistan.

JEL Classification: G28, G32, G38, M48
Keywords: Tunneling, Propping, family business groups, corporate governance, related party transaction, family ownership, ownership structure, business group.

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[1]Researcher, Department of Finance & Investments, NUST Business School (NBS), National University of Sciences and Technology, Islamabad, Pakistan. Email: shahid.hussain@nbs.nust.edu.pk
[2] Corresponding Author: Assistant Professor, Finance & Investments Department, NUST Business School (NBS), National University of Sciences and Technology, Islamabad, Pakistan. Email: nabeel.safdar@nbs.nust.edu.pk.
[3]Assistant Professor, Department of Business Administration, Sarhad University of Science and IT, Peshawar, Pakistan. Email: muhammadabbas.ba@suit.edu.pk.

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1. Introduction

Two types of agency issues exist in corporate governance in relation to ownership and control of firms. The Type I agency issue is known as'principal-agent' conflict which arises between firm's managers and shareholders (Jensen &Meckling, 1976).Whereas the Type II agency issue relates tomajority (controlling)vs minority shareholders and known as 'principal-principal' conflict (Young et al. 2008).In firms affiliated with business groups or Family Business Groups (FBG), Tunneling and Propping correspond to Type II agency issue. Generally, in a FBG, two or more firms are directly or indirectly controlledby a particular family.Literature suggests that controlling shareholdersshift resources from one group affiliated firm to another (depending upon ownership & control)through a clandestine operation known as Tunneling, and it ultimately affects the business interests of minority shareholders (Johnson et al. 2000). Conversely in financial distress, controlling shareholders also provide resources to group affiliated firms to avoid their default. Such process about injection of resources is known as Propping (Friedman et al. 2003). InFBG firms, controlling shareholders carry out tunneling or propping through various ways including use of Related Party Transactions (herein after RPTs) with listed firms.

The related parties are generally directors, family members, managers, owners, and associated or subsidiary firms. Around the globe, listed firms and their related parties conduct several types of RPTs for their respective benefits. Literature classifies RPTs into seven major categories, such as assets acquisitions, assets sales, assets swaps, trade of goods and services, cash payments, cash receipts and transactions between the listed firm and its majority-controlled privatesubsidiaries or associated firms (Cheung et al., 2006; Cheung et al.,2009). Peng et al. (2011) state that RPTs are used for long term benefits of firms' sales-purchase contracts; however, they are also used against the benefits of the minority shareholders in firms. Liew et al.(2015)argued thatRPTs in Malaysian firms negatively affect performance and minority shareholders of firms. This is more prevalent in firms which lack appropriate corporate governance measures especially an independent Board. Cho and Lim (2018) find that tunneling is carried out in Korean business group firms through RPTs, which affects minority shareholders.

The literature on RPTs is increasing around the world especially in Asia[4]. However, it has not yet been explored in Pakistan with the exception of Azim et al. (2018) who have studied the impact of independent directors and corporate governance on RPTs in family-owned firms in Pakistan. Pakistan has high concentration of ownership (Afgan et al., 2017; Javed& Iqbal, 2010, Hussain & Safdar, 2018). Hussain (2020) finds that controlling shareholders have over 10%

[4]See, Aharony, Wang & Yuan, 2010; Berkman, Cole & Fu, 2009; Djankov, La Porta, Lopez-de-Silanes & Shleifer, 2008; Jiang, Lee & Yue, 2010; Kim, Pae & Yoo, 2019; Nurazi, Santi & Usman, 2015; Zhang, Yang, Strange & Zhang, 2017.

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shareholding in87% of firms and over 20% shareholding in 60% of firms in Pakistan. Moreover, families control most of the businesses in FBG of Pakistan e.g.,families have about 20% or more top shareholdings in 62% of FBG.He alsofindsconsiderable difference in voting rights and CFR in FBG firms. Such deviation between ownership and controlencourages controlling shareholders to tunnel or expropriate resources which reduce the value of minority shareholders.

Despite high concentration of family ownership and evidence of tunneling; literature is rare on this topic, particularly the impact of RPTs and large loan balances in FBG firms of Pakistan.In order to bridge this gap, the purpose of thisstudy is to examinetheexistence and impact of tunneling and propping carried out through RPTs in FBG of Pakistan. This study also investigates proppingbesides tunneling in Pakistani FBG firms. It contributes to knowledge by various ways; first, this study identifies and categorizes the reported RPTs in Pakistani listed firms against the standard types of RPTs classified by Cheung et al. (2006,2009). Second, this study examines the characteristics of the firms' profitability, corporate governance and information disclosure with respect to RPTs, and also finds the likelihood for conduct of RPTs with such characteristics. Third, this study finds the direct impact of RPTs particularly large intra-group loans and other receivable balances on market valuation, and firms' future returns. Fourth, this study explores the monitoring role of auditors and impact of qualified audit opinions on firms' future RPTs activities.The main insights relate to Pakistani firms as the study uses this context to address the problem with firms based in a regime (i.e., culture) with strong family ties. This study provides new insights on 'propping' besides 'tunneling' in Pakistani family-owned companies, which is largely grey area in literature.

In this context, the following section2 describes the RPTs and pertinent literature. Section 3 elucidates the data and methodology. Section 4highlights the descriptive statistics and analyses the results. Finally, section 5presents the conclusion and recommendations.

2. Literature Review

Based on the strategic decisions of firms,RPTs are carried out between listed firms and their controlling shareholders andmay be categorized in different ways. Cheung et al. (2006, 2009) classify the RPTs between the controlling shareholders and respectivelisted firms into seven major categories, namely (1) provision of cash payments, loan guarantees or loans by the listed firm to its relevant controlling owner or related party (2) sales of business assets by the listed firm to the controlling owners or related party (3) asset swaps or displacements between controlling shareholder and the listed firm (4) trade of goods or services between controlling owners and the listed firm (5) provision of assetsby controlling owner or related party to the listed firm or acquisition of assets by the listed firm (6) provision of cash payments, loan guarantees or loans by the related party or controlling owners to the listed company (7) transactions (acquisitions, sales, trade, etc.) between the listed firm and its privatesubsidiaries or associated firms. They find that RPTs are used for tunneling activities which result in considerable loss to value of minority shareholders in affected firms.

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The question arises, which of these RPTs are used as mechanism for tunneling and propping? Literature (Du et al., 2013;Jian & Wong, 2010; Jiang et al., 2014; Nekhili, &Cherif,2011; Ying & Wang, 2013) suggests that there are three prominent reasons of RPTs, i.e., earnings management, propping and tunneling. Cheung et al. (2009) state that provision of direct cash payments, loan guarantees or loans by the listed company to its relevant controlling owners are practically tunneling RPTs (category 1). Whereas, the last two RPTs are generally used for propping as listed firm is directly benefitted by the provision of cash and loan guarantees from the controlling owners (category 4) as well as receipt of assets and goods or services from their private associated firms (category 7). However, the RPTs at categories (2) to (5) are used for both tunneling as well as propping depending upon the acquiring/ selling of business assets, services or goods from/ to related parties at above/ below market prices respectively.

Bertrand et al. (2002) find that some of related transactions have considerable impact on operating profits of business group firms. Jian and Wong (2003) find that business group firms in China use RPTs (like trading of goods and services) with their parent firms to expropriate resources and manipulate income. However, Friedman et al. (2003) highlight that RPTs may also be used for propping up poor performing and highly leveraged group firms. La Porta et al. (2003) studied the intra-group lending transactions of Mexican banks with listed firms controlled by respective banks owners and found that related party banks charge lower interest rates on loans to their related listed firms. Djankov et al. (2008) highlight that RPTs may offer direct prospects for expropriation of cash by controlling owners.

Jiang et al. (2010) have studied Chinese listed firms and found that controlling shareholders use inter-corporate loans for tunneling resulting in considerable loss to the minority shareholders. Aharony, et al. (2010) found that sales of goods and services with related parties can be used to increase earnings of controlling owners before IPO period. Nurazi et al. (2015) have studiedIndonesian andfound the tunneling in 276 firms through related party transactions, alsofound the firms controlled by state or family experience more tunneling.Chen et al. (2017) have found that controlling shareholder's shareholding ratio significantly affects the tunneling behavior while the size of firmhas positive relationship with tunneling in Chinese firms. Further, Zhang et al. (2017) conclude that large scale trading of foreign institutional investors ensures market discipline and reduces tunneling to some extent. However, foreign institutional investors also increase their trading profits by exploiting their private knowledge. Such trading implicitly supports tunneling as it affects the uninformed minority investors. More recently, Kimet al. (2019) highlight that listed firms affiliated to business group contribute more charitable transactions in contrast to group affiliated private firms. They conclude that such transactions are related to tunneling by controlling shareholders.

2.1 Use of Loans as Tunneling RPT

The provision of cash payments, loan guarantees or loans by the listed firm to its relevant controlling owner (related party) is the major RPTs related to tunneling as suggested by the

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(Cheung et al., 2006, 2009). Intra-group loans are relatively easy to trace through disclosed information given in firms financial statements and are suitable instrument to find tunneling. The tunneling activities can directly be found by examining the issuance and clearance of these loans. Jiang et al. (2010) state that in some cases, these inter-corporate loans are issued with very lower interest rate or without interest at all and sometimes neither interest nor the principal amount is paid back to listed firms by their related parties. Resultantly, many of business group firms have large amount of outstanding loans,and receivables shown as other receivables on financial statements. This makes the inter-corporate loans and related receivables as one of the importantsources of tunneling.Therefore, it is important to investigate the extent of insiders' use of intra-group or inter-corporate loans toexpropriate funds from firms.

Many firms that suffered from extreme reduction in stock price during the Asian crisis had issued intra-group loans to related parties (Lemmon &Lins, 2003).In the United States, credit or loan facilities provided by Adelphia Communications to majority shareholder (i.e., Rigas family) have remained under discussion. Intra-group loans also facilitated the building of the Alan Bond Empire in Australia (Jiang et al., 2010). A large stream of literature on protection of investor in financial markets is concentrated on the agency issue of insider tunneling and its curtailment (La Porta et al. 2000).

Many studies have also found the existence and amount of tunneling through premiums paid and divergence of voting rightsvsCFR (Nenova, 2003; Bertrand et al., 2002; Dyck and Zingales, 2004; Atanasov, 2005). Alternatively, tunneling is directly inferred by relating to firm's ownership structure and the prices paid in RPTs, or measuring the deviations in firms' equity value. Jiang et al., (2010) state that firms with largeramounts of other receivablesdisplay poorer future operating performance. The large balance of other receivables not only lower the rates of return; rather, it creates the probability of potential financial distress byhighlighting that the degree of other receivable is the unique best indicator of futureReturn on Assets(ROA) after controlling for the prevailing year ROA.

In summary, the empirical examination of RPTs is considered as an important direct measure of tunneling and propping as suggested by Cheung et al. (2009) and Jiang et al. (2010). Though this method of tunneling requires extensive examination of data about RPTs; however, it provides more in-depth analysis and sources of tunneling and propping. This approach has certain additional advantages such as it facilitates to observe the potential sources of tunneling (or propping) andquantify it, independent of firm value across listed firms. Since, RPTs are reported periodically through financial statements;therefore, direct approach enables to assess the response of institutional investors, auditors and market regulators, etc. Finally, it may help to infer the effective implementation of corporate governance mechanism.

3. Data and Methodology

This studyhas used the direct approach (i.e.,RPTs) methodologies (Cheung et al., 2009; Jiang et al., 2010) to examine the tunneling and propping.The sample comprises of 326 non-

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financialfirms listed on Pakistan Stock Exchange (PSX. In the sample, 181 firmsare affiliated with 53 family business groups which is prime focus of this study. This study uses the data related to accounting, characteristics, RPTs, ownership and corporate governanceof firms. The data related to RPTs carried out during 6 years period (i.e., 2008-2013) was manually collected from annual financial statements (including relevant notes) after extensive examination of 'annual reports' of all sample firms. The financial and corporate ownership data isacquired from annual financial statements and relevant websites of firms. Stocks price data is obtained from PSX.

Initially, about 100 categories of RPTs have been observed while studying the annual financial statements of sample firms. RPTs have been identified as per their financial inflow, outflow, nature and function. These transactions have been further classified and grouped against specific class or group. Finally, these different classes of RPTs are linked to seven major or standard types of RPTs as broadly defined by Cheung et al. (2006, 2009). Table 1 summaries the number of these standard RPTs in group affiliated, non-group (stand-alone), state and foreign firms in the sample.

Table I: Summary of Number of Standard RPTs in Sample Firms

	RPT1	**RPT2**	**RPT3**	**RPT4**	**RPT5**	**RPT6**	**RPT7**	**Total RPTs**	**% of RPTs**
	Cash payment	Assets Sales	Asset Swaps	Trade of Goods & Services	Assets Acquisitions	Cash Receipts	Transactions with non-listed subsidiaries		
GP	778	284	0	967	139	688	203	3,059	67.74
NGP	372	69	0	266	28	287	91	1,113	24.65
FR	87	17	0	72	11	57	43	287	6.36
ST	21	2	0	17	0	14	3	57	1.26
Total	**1,258**	**372**	**0**	**1,322**	**178**	**1,046**	**340**	**4,516**	**100**

This table shows the summary of standard RPTs in Group (GP)affiliated, Non-group (NGP), foreign (FR) and state-owned (ST) firms. Source: Author's own.

It has been observed that a total of 4,516 RPTs are carried out by the sample firms during the 2008-13 as summarized in Table 1. Among all sample firms, the group firms have conducted the most i.e., 3,059 (67.7 %) RPTs. The non-group, foreign and state-owned firms have carried out 1,113 (24.65%), 287 (6.36%) and 57 (1.26%) RPTs respectively. The cash payment(RPT1), trade of goods & services(RPT4) and cash receipts(RPT6) with transactions of 1,258, 1,322 and 1,046 respectively are the most prominent RPTs in all types of firms. Further, the trade of goods & services and cash payment with transactions of 967 and 778 respectively are the most conducted RPTs in groups firms,whereascash payment and cash receipts with transactions of 372 and 287 respectively are highly reported RPTs in non-group firms. Assets acquisitions (RPT5) is the least reported RPTs, and asset swaps (RPT3) has not been observed in any firm. Table 1 further reflects that mostly tunneling related transactions, i.e., cash payment

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(RPT1) and trade of good & services by the listed firm (RPT4), and propping related transaction, i.e., cash receipts by the listed firm (RPT6) are the major RPTs carried out by group firms.

Further, the detailed examination of transactions against RPT1 shows that various transactions between listed firms and controlling shareholder or related parties have been carried out through loans and markup, cash payments, donations, dividend, rent payments, receivables, and miscellaneous expenses. Among these, the most important are the loans and markup, rent and expenses of associates, cash payments, and dividends. The group firms have conducted the more transactions as compared to standalone (non-group) or other firms. Cheung et al. (2009) state that this RPT is directly related to tunneling and it has been observed extensively in the sample group firms of this study. In RPT2, the sales or disposal of tangible and intangible assets have largely been observed in group firms. Overall, the RPT4 is the most conducted RPTs in all firms as well in group firms. Though, the number of purchase (485) and sales (482) of goods or services transactions are nearly same; however, the occurrence of this transaction is almost four times higher in group affiliated firms than standalonefirms. In RPT5, assets purchase or acquisition and investment in associates is more prominent than equity purchase in all firms including group firms; however, the figure for group firms is about 5 times greater than non-group firms. In RPT6, the most noteworthy transactions are income from associates, loans and mark up, cash receipts and payables. All of thesetransactions are much higher for group firms. In RPT7, the loans, purchases, expenses and sales are most important transactions in all firms, and particularly in group firms.

Since, various RPTs are prominent in the group affiliated firms; therefore, these firms are particularly studied. Atfirst, various characteristics of RPTs relevant to tunneling and propping are examined. Secondly,regression models are applied based upon the relevant literature(Cheung et al., 2006, 2009; Jiang et al., 2010) and same are described in the ensuing paragraphs. Initially, the following Logit model is used to examine the likelihood for conduct of tunneling and propping related RPTs:

$$DRPT_{it} = \alpha + \beta_1 ROA_{it} + \beta_2 LEV_{it} + \beta_3 BSIZE_{it} + \beta_4 TBM_{it} + \beta_5 NID_{it} + \beta_6 CEOD_{it} + \beta_7 B4A_{it} + \beta_8 QOPN_{it} + \beta_9 Controls_{it} + \varepsilon_{it} \quad (1)$$

Whereas the dependent variable 'DRPT' is equal to'1' if transaction falls in any of related party category and '0' otherwise. ROAshows the return on assets; LEV is the leverage, (i.e., total debt over total assets); BSIZE is the total number of board members in firms' board; TBM is the total board meetings of firms in each year; NID is the total number of independent directors on firms' board; CEOD is used as a dummy variable which is equal to '1' if CEO is also a chairperson of board and '0' otherwise. B4A represents a dummy variable which is taken as '1' if audit of firm is carried out by big 4 auditors' category and '0' otherwise; QOPN is a dummy variable which is taken as '1' for firms getting the qualified auditor's opinion and '0' otherwise; and finally, controls are firm SIZE (i.e., log of total assets) and AGE (i.e., number of years since incorporation of firms).

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Jiang et al. (2010) state that a considerable part of firms' large other receivable balancesis directly related to the main controlling owners and its subsidiaries. This is particularly prominent in firms falling in higher scaled deciles of other receivables. Therefore, the other receivables are the single best predictor of future returns and economic impact of expropriation. In this context, the economic consequences of the large balances are also explored. Particularly, the following model 2 tests the effects of large amount of outstanding other receivables for firms' future return on assets and firms' chances of suffering from financial distress due expropriation. For this purpose, following regression model is used:

$$ROA_{i,\,t+1} = \alpha + \beta_1 ROA_{it} + \beta_2 D\_OREC_{it} + \beta_3 NEG_{it} + \beta_4 Controls_{it} + Firm_i + Time_t + \varepsilon_{it} \quad (2)$$

Where, dependent variable, $ROA_{i,t+1}$ is future ROA in year t+1. Independent variables are: A rank variable, D_OREC, i.e. the scaled decile rank of other receivables (OREC). The D_OREC is equal to '1' for firms falling in the highest other receivable's decile, whereas, the firms falling in the lowest decile are represented with '0'. NEG is a dummy variable, which is taken as '1' if current year net income is negative, and '0' otherwise. ROA as well as control variables SIZE and LEV are same as described earlier. The firm and year fixed effects have been controlled through respective dummies. It is expected that D_OREC will have a *negative* relation with future ROA. It means, firms with higher other receivable balance make lower future return on assets after controlling the effect of current year return on assets. Thus,in this model, other receivables predict future operating performance or the prospect of firm's going into distress. Further, the effect of large other receivables balance on stock prices (or market valuation) and future operating performance of group firms has been examined through following regression model 3.

$$MVTA_{it} = \alpha + \beta_1 ROA_{it} + \beta_2 D\_OREC_{it} + \beta_3 NEG_{it} + \beta_4 BVTA_{it} + \beta_5 ROA * D\_OREC_{it} + \beta_6 SG_{it} + \beta_7 TOPS_{it} + \beta_8 Controls_{it} + Firm_i + Time_t + \varepsilon_{it} \quad (3)$$

The dependent variablein this model is MVTA i.e. the market value over total assets at the end of the quarter after year-end. In addition to the independent variables already described in the previous model; BVTA is used as the year end book value of equity over total assets; TOPS is the percentage ownership (shareholding) of the largest controlling shareholder; SG represents the percentage sales growth from the last year; and ROA* D_OREC is an interaction term of ROA and D_OREC. The firm fixed effects and year fixed effects are used to control their effects. The control variables are LEV and SIZE as defined earlier.Moreover, the monitoring role of auditors has been examined through flowing models 4 and 5:

$$D\_QOP_{it} = \alpha + \beta_1 OREC_{it} + \beta_2 L\_QOP_{it} + \beta_3 AREC_{it} + \beta_4 ROA_{it} + \beta_5 Controls_{it} + \varepsilon_{it} \quad (4)$$

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First, logit model in equation 4 has been used to test whether firms with high other receivables balances have more probability of receiving qualified auditor opinions. In this model,the dependent variable D_QOP is a dummy variable. It is equal to '1' if the firm gets a qualified opinion of auditor, and '0' otherwise. The independent variables OREC (other receivables balance divided by total assets) is expected to be positive with a probability of getting a qualified audittor's opinion; L_QOP is the lagged QOP, i.e., the corresponding opinion of auditor in the last year. AREC shows the accounts receivable over total assets. The models' remaining variables are same as defined earlier. Finally, the impact of auditor's qualified opinion on tunneling behaviour of firm in next year has been examined through following regression model 5:

$$OREC_{i,t+1} = \alpha + \beta_1 OREC_{it} + \beta_2 D\_QOP_{it} + \beta_3 Controls_{it} + Firm_i + Time_t + \varepsilon_{it} \quad (5)$$

The dependent variable OREC is other receivables over total assets in year t+1; independent variables are OREC, dummy variable D_QOP, control variables LEV and SIZE are same as explained earlier. The firm fixed effects and year fixed effects have been used to control their effects. It is expected that coefficient of D_QOP would be negative if there is no subsequent tunneling by group firm after receiving the qualified audit opinion.

4. Results and Discussion

The section 4presents the summary statistics and analyses the empirical results. Particularly, it describes the characteristics of RPTs and relevant group firms, examines the likelihood of tunneling or propping related RPTs, measures the impact of other receivables on future returns, and investigates the monitoring role of auditors and the effect of qualified audit opinions.

4.1 Descriptive Statistics

Table 2shows the descriptive statistics of variables. Each variable reflects the summary statistics for group affiliated firms as compared to stand-alone (NGP) firms. On average, group affiliated firms are relatively older in age and larger in size. They have more market value, return on assets, receivables, percentage equity owned by family and percentage of largest controlling shareholders. The CEO duality is also greater in group firms, but they havefewer independent directors on board. Most of the group firms are audited by top 4 audit firms. Whereas non-group firms have more BVTA, leverage, sales growth and Tobin's Q. The non-group firms also have more independent directors on their board as compared to group affiliated (GP) firms.

Table II: Descriptive Statistics of Variables

Variables	Firms Types	Obs	Mean	SD	Min	Max
AGE	GP	1,086	34.37	15.39	4.00	79.00
(Years)	NG	672	30.82	14.79	6.00	76.00
SIZE	GP	1,075	8.02	1.49	3.96	12.22

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(Million Rs)	NGP	671	7.31	1.47	3.45	11.51
BVTA	GP	1,075	0.16	0.25	0.001	1.92
	NGP	671	0.20	0.27	0.002	1.92
LEV (%)	GP	1,060	20.72	7.40	2.01	61.87
	NGP	632	26.02	11.93	1.57	67.83
OREC	GP	834	355.03	1,810.69	0.09	16,545.48
(Million Rs)	NGP	450	288.45	998.84	0.23	14,403.55
AR	GP	1,086	2,732.97	10,534.04	0.00	67,000.00
(Million Rs)	NGP	666	1,512.02	5,887.89	0.00	65,000.00
SG	GP	894	0.16	0.55	-1.00	7.98
	NGP	556	0.17	0.50	-0.98	5.82
MV	GP	1,086	3,397.37	10,879.95	0.00	146,000.00
(Million Rs)	NGP	672	2,469.39	10,623.58	0.00	142,000,00
DIVYD	GP	1,062	0.023	0.048	0.00	0.462
	NGP	649	0.02	0.05	0.00	0.70
ROA	GP	1,083	3.07	9.45	-23.34	32.32
	NGP	672	1.73	10.65	-19.16	30.25
TBNQ	GP	1,066	1.00	0.53	0.21	3.51
	NGP	665	1.03	0.60	0.00	3.94
DFE	GP	857	31.88	28.96	3.12	96.10
(%)	NGP	544	30.52	27.91	1.07	95.91
TOPS	GP	839	31.36	19.54	7.05	85.02
(%)	NGP	503	31.05	19.62	3.70	94.99
BSIZE	GP	868	7.84	1.40	4.00	15.00
	NGP	552	7.51	1.07	6.00	14.00
NID	GP	625	0.78	1.08	0.00	5.00
(Number)	NGP	419	1.25	1.67	0.00	7.00
PID	GP	306	19.94	13.39	0.00	57.14
(%)	NGP	228	31.12	23.21	10.00	87.50
TBM	GP	849	5.41	2.28	0.00	20.00
(Number)	NGP	527	5.38	2.18	2.00	20.00
B4A	GP	1,086	0.39	0.49	0.00	1.00
	NGP	672	0.23	0.42	0.00	1.00
QOPN	GP	1,086	0.08	0.27	0.00	1.00
	NGP	672	0.11	0.32	0.00	1.00
CEOD	GP	1,086	0.33	0.47	0.00	1.00
	NGP	672	0.28	0.45	0.00	1.00

This Table reports the descriptive or summary statistics of variables of Group (GP) firms and Non-Group (NGP)firms of sample. Source: Author's own.

4.2 Characteristics of RPTs and relevant group firms

Table 3 reportsthe various characteristics and statistics of RPTs with respect to RPTs amount, firms' profitability, corporate governance and information disclosure of sample group firms. Table 3 is divided in three parts; Panel A summarizes the related party transactionamount

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characteristics; Panel B highlights the firms' characteristics against respective standard RPTs and Panel C reports the corporate governance and information disclosure characteristics for each major seven types of RPT.

Table III:Characteristics of RPTs and group firms

Panel A. Related Party Transactions amount characteristics

Type of RPTs	RPTs (Number)	Mean (Million Rs)	Std. Dev. (Million Rs)	Min (Million Rs)	Max (Million Rs)
RPT1(Cash Payments)	513	95.16	200.03	0.097	1065.66
RPT2(Assets Sales)	139	136.86	359.82	0.015	2091.88
RPT4 (Trade of Goods or services)	576	2050.32	8977.20	0.177	69365.62
RPT5(Assets Acquisitions)	128	111.48	263.80	0.128	1600.00
RPT6Cash Receipts)	426	176.86	330.58	0.075	1758.84
RPT7 (Transactions with non-listed subsidiaries)	102	279.43	706.52	0.240	3733.61
TRPT(Total RPTs amount)	710	1864.18	7444.87	0.532	57939.87
TRPTMV(TRPT/Market value)	679	6.19	40.38	0	399.35
TRPTTA(TRPT/ Total Assets)	705	3.16	23.06	0	193.99

Panel B. Firms characteristics with respect to RPTs

Type of RPTs		LEV	ROA	BM	BVTA	TBNQ	DIVYD	MV (Mil Rs)	OREC (Mil Rs)
RPT1 (Cash Payments)	Mean	2.30	3.41	1.18	0.16	0.97	0.07	2783.15	136.50
	Std.Dev.	4.90	8.58	1.75	0.30	0.49	0.06	8108.07	344.76
	Min	0.00	-30.30	0.02	0.00	0.16	0.00	9.59	0.23
	Max	46.82	26.22	9.37	3.45	3.28	0.31	67818.21	4652.28
RPT2 (Assets Sales)	Mean	1.52	4.24	0.82	0.12	1.04	0.07	3324.97	178.00
	Std.Dev.	2.80	9.23	1.19	0.30	0.50	0.06	7282.64	513.11
	Min	0.00	-27.16	0.02	0.00	0.16	0.01	11.87	0.23
	Max	16.58	26.22	7.89	3.45	3.28	0.31	54603.92	4652.28
RPT4 (Trade of Goods or services	Mean	1.80	3.86	1.04	0.16	0.98	0.07	2996.25	166.28
	Std.Dev.	3.86	9.13	1.61	0.34	0.50	0.06	8541.13	436.99
	Min	0.00	-30.30	0.02	0.00	0.16	0.00	9.59	0.23
	Max	45.83	27.21	8.34	3.25	3.27	0.32	67818.21	4652.28
RPT5 (Assets Acquisitions)	Mean	2.23	4.47	0.96	0.16	1.05	0.07	2274.94	156.28
	Std.Dev.	3.86	9.28	1.82	0.43	0.45	0.06	4806.73	342.83
	Min	0.00	-30.30	0.03	0.00	0.18	0.01	12.82	0.23
	Max	27.10	26.22	9.37	3.45	3.28	0.31	36670.57	2089.76
RPT6 Cash Receipts)	Mean	2.43	3.50	1.25	0.17	1.00	0.07	3066.70	157.93
	Std.Dev.	5.06	9.07	1.89	0.40	0.49	0.06	8731.83	347.74
	Min	0.00	-30.30	0.02	0.00	0.16	0.00	9.59	0.23
	Max	46.82	26.22	9.37	3.45	3.28	0.31	67818.21	2268.80

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RPT7 (Transactions with non-listed subsidiaries	Mean	3.90	1.85	1.13	0.20	0.94	0.06	2384.63	92.54
	Std.Dev.	7.10	8.77	1.40	0.25	0.32	0.06	5055.07	139.89
	Min	0.00	-30.30	0.04	0.01	0.43	0.01	9.59	0.23
	Max	33.32	26.22	7.79	1.84	2.51	0.20	23867.03	812.45

Panel C. Firms' corporate governance and information disclosure characteristics with respect to RPTs

Type of RPTs		TOPS	BSIZE	NID	TBM	CEOD	B4A	QOPN
RPT1 (Cash Payments)	Mean	32.28	7.86	0.86	5.36	0.32	0.35	0.08
	Std.Dev.	19.54	1.51	1.15	2.22	0.47	0.48	0.28
	Min	8.04	6.00	-	2.00	0	0	0
	Max	84.64	15.00	5.00	20.00	1	1	1
RPT2 (Assets Sales)	Mean	30.28	7.58	0.68	5.58	0.30	0.39	0.10
	Std.Dev.	17.73	1.20	0.85	2.77	0.46	0.49	0.30
	Min	8.04	6.00	-	2.00	0	0	0
	Max	84.64	13.00	4.00	19.00	1	1	1
RPT4 (Trade of Goods or services	Mean	32.96	7.97	0.81	5.39	0.31	0.39	0.08
	Std.Dev.	19.68	1.57	1.12	2.18	0.46	0.49	0.26
	Min	8.04	6.00	-	2.00	0	0	0
	Max	84.64	15.00	5.00	19.00	1	1	1
RPT5 (Assets Acquisitions)	Mean	30.13	7.63	0.85	5.25	0.27	0.42	0.05
	Std.Dev.	16.09	1.50	1.01	2.60	0.45	0.50	0.21
	Min	8.04	4.00	-	2.00	0	0	0
	Max	75.93	15.00	4.00	19.00	1	1	1
RPT6 Cash Receipts)	Mean	32.43	7.99	0.75	5.53	0.28	0.34	0.08
	Std.Dev.	19.45	1.66	1.00	2.49	0.45	0.48	0.27
	Min	8.04	6.00	-	2.00	0	0	0
	Max	84.64	15.00	5.00	20.00	1	1	1
RPT7 (Transactions with non-listed subsidiaries	Mean	34.01	7.68	1.12	5.99	0.36	0.40	0.09
	Std.Dev.	21.44	1.13	1.39	3.33	0.48	0.49	0.29
	Min	8.98	6.00	-	4.00	0	0	0
	Max	76.76	11.00	5.00	20.00	1	1	1

This Table presents the characteristics and descriptive statistics of RPTs with respect to related party transaction amount, firms' profitability, corporate governance and information disclosure of sample firms. Panel A summarizes the related party transaction amount characteristics, Panel B highlights the firms' characteristics against respective RPTsand Panel C reports the corporate governance and information disclosure characteristics for each RPT.

Panel A of Table 3 shows that trade of goods or services, cash payments and cash receipts i.e., RPT4, RPT1, RPT7 respectively aremostly conducted by group firms. However, the transactions about trade of goods or services, non-listed subsidiariesand cash receipts i.e., RPT4, RPT7,RPT6 respectively are larger in Rupee's amount. The total transactions amount of all types of transactions (TRPT) in each firm with respect to market value and firms' assets show that RPTs are much larger than the market value and assets size of the group firms. The average ratio of TRPT value to market value (TRPTMV) is 6.19 and ratio of TRPT value to assets size (TRPTTA) is 3.16 respectively. It means listed companies are extensively involved in transactions with their related listed and private subsidiaries, and transaction amount is about 6

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times and 3 times larger than market value and asset size of firms respectively. Cheung et al. (2009) state that cash payments is directly linked with tunneling. Cash receipts and transactions with private subsidiaries are considered as propping transactions. However, the trade of goods and services, assets sales and acquisitions may be tunneling, or propping depending upon the assets sales or purchase above or below market prices. As evident from the table, firms are heavily engaged in both types of transactions particularly tunneling (RPT1), propping (RPT7) and tunneling& propping (RPT4).

Overall,in Panel B and C of Table 3, the characteristics of firms and transactions suggest that the tunneling related transactions are more prominent in firms that havelarge size, market value and other receivables. Moreover, these RPTs are more common in firms that have fewer independent directors, less ownership (percentage shares) of largest controlling shareholders and more qualified audit opinions. Whereas the propping related transactions are prevalent in highly leveraged firms. Such firms have CEO duality and large board size. They conduct more board meetings and have more percentage ownershipof the largest controlling shareholders. These findings are consistent with the findings of Friedman et al. (2003) that propped up firms are generally highly leveraged firms.

4.3 Likelihood for Conduct of Tunneling or Propping RPTs.

In this section, the likelihood of conducting major tunneling or propping related transactions is examined with Logit models. The dependent variables is the dummy variable, i.e., each of the major RPTs is equal to '1' if the RPTis cash payment (RPT1), asset sales (RPT2), trade of goods & services (RPT4), assets acquisitions (RPT5), cash receipts (RPT6), transaction with non-listed subsidiaries (RPT7) and '0' otherwise.Table 4 reports the results of the likelihood (Logit models) of undertaking these RPTs with respect to characteristics of firms and corporate governance used as independent variables. The results facilitate to examinethe significant characteristics of firms and corporate governance variables of sample group firms that involve insuchRPTs.

Table IV: Likelihood of Tunneling or Propping RPTs

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Likelihood of Tunneling related transactions				Likelihood of Propping related transactions		
	Cash Payments	Assets Sales	Trade of Goods & Services	Assets Acquisitions	Cash Receipts	Transactions with non-listed subsidiaries	Total RPTs
	DRPT 1	DRPT 2	DRPT 4	DRPT 5	DRPT 6	DRPT 7	DRPT
ROA	0.00853	0.0121	0.00404	0.0148	-0.000405	-0.0335**	0.00474
	(0.00930)	(0.0144)	(0.00934)	(0.0149)	(0.00940)	(0.0144)	(0.00977)
LEV	0.00324	-0.0518	-0.0439***	-0.0138	-0.00501	0.0111	-0.0193*
	(0.0106)	(0.0380)	(0.0147)	(0.0224)	(0.0110)	(0.0149)	(0.0110)
SIZE	0.0251	0.209*	0.102	0.184	0.183**	-0.0308	0.0251
	(0.0732)	(0.116)	(0.0754)	(0.124)	(0.0761)	(0.111)	(0.0732)
AGE	-0.00911	-0.00684	-0.0223***	-0.0133	-0.00493	0.00542	-0.00911
	(0.00673)	(0.00976)	(0.00683)	(0.0109)	(0.00689)	(0.00997)	(0.00673)
BSIZE	-0.201***	-0.269**	0.105	-0.145	0.0535	-0.163	-0.139**

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	(0.0717)	(0.134)	(0.0693)	(0.122)	(0.0673)	(0.119)	(0.0691)
TBM	0.00870	0.0416	0.0227	0.0136	0.0954**	0.134***	0.0841*
	(0.0363)	(0.0486)	(0.0367)	(0.0548)	(0.0375)	(0.0448)	(0.0446)
NID	-0.164**	-0.0580**	0.0561	0.0899	-0.0617**	0.346***	0.138
	(0.0800)	(0.124)	(0.0806)	(0.117)	(0.0816)	(0.109)	(0.0872)
CEOD	0.422**	-0.0111	-0.387**	-0.344	-0.552***	0.483*	-0.327*
	(0.173)	(0.256)	(0.173)	(0.276)	(0.178)	(0.269)	(0.183)
B4A	-0.240	0.0771	-0.246	-0.244	-0.389**	0.196	-0.616***
	(0.188)	(0.281)	(0.188)	(0.295)	(0.194)	(0.288)	(0.197)
QOPN	-0.0230	1.125***	-0.352	0.492	-0.393	-1.039	0.0908
	(0.342)	(0.420)	(0.341)	(0.487)	(0.357)	(0.762)	(0.364)
Constant	1.490**	-0.201	-0.501	-0.986	-0.881	-2.121**	1.582***
	(0.583)	(1.041)	(0.567)	(0.965)	(0.556)	(0.961)	(0.582)
Obs	513	139	576	128	426	102	710
Pseudo R^2	0.0217	0.0373	0.0288	0.0133	0.0270	0.0675	0.0329

The standard errors are shown in parentheses. The *, ** and *** showp<0.1, p<0.05 and p<0.01 respectively.This Table summarizes the results of the Logit models (equation 1) to examine the likelihood of group firms conducting various RPTs relevant to tunneling and propping. The DRPT1 to DRPT7 (except DRPT3) & DRPT are dummy variables of respective RPTs which take the value of one if any of RPT (as in columns 1 to 7) has taken place and zero otherwise. The firm and corporate governance related explanatory variables are same as defined earlier.

The empirical results of Table 4 show that group firms that conduct assets sales (RPT2, column 2) and cash receipts (RPT6, column 5) RPTs are relatively larger in size. Firms that conduct transactions of cash receipts (RPT 6, column 5) are likely to conduct more board meetings with fewer independent directors and less likelihood to be audited by the 'top 4' auditing firms. Further, such firmshavelower probabilityto have same person as chairman of the board as well as CEO of the firm. Firms that conduct transactions of cash payments (RPT1, column 1) are likely to have fewer independent directors on boards, smaller board size and more CEO Duality. While firms that conduct assets sales (RPT2, column 2) are likely to have fewer independent directors on boards, smaller board size and also likely to get qualified audit opinion by the auditing firms. Firms that engage in trade of goods or services (RPT4, column 3) are likely to have less leverage, smaller age and lower level of CEO duality. Finally, the firms that engage in transactions with respective non-listed or private subsidiaries (RPT7, column 6) are more likely to have CEO duality, conduct more board meetings with more independent directors and less return on assets.

Overall, the results of the Logit model suggest that the firms that engage in tunneling related transactions are likely to have less board meetings, fewer independent directors on their board and more qualified audit opinion by the auditing firms. Whereas the firms that involve in propping related transactions are likely to have less return on assets, more board meetings and less likely to be audited by top 4 audit firms.

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4.4 The impact of other receivables on future returns.

The following Table 5 reports the results of regression model2 with respect to group firms. This model is helpful in predicting the future operating performance and the prospect of firm's going into distress. In fact, other receivables on firms' financial statements include the large balance of RPTs. Thus, this model explains about the significant economic impact of the expropriation of minority shareholders resources (i.e., tunneling). The results in Table 5 show that D_OREC has significant negative relationship with future ($year_{t+1}$) return on assets. These results are consistent and significant with other control variables. The negative coefficient for D_OREC shows that firms in higher OREC scaled decile (large other receivable balances) produce lower future return on assets, after controlling for current year return on assets. Moreover, the difference between return on assets of top and bottom decile OREC firms is about 3 times in group firms.

Table V: Other receivables and RPTs as predictor of future operating performance

Dependent Variable: ROA_{t+1}	
Variables	Coefficients
Constant	0.666
	(2.1047)
ROA	0.390***
	(0.0371)
D_OREC	**-3.452*** **
	(1.0201)
SIZE	0.359
	(0.2344)
LEV	0.0328
	(0.0439)
NEG	-1.755*
	(0.9059)
Observations	693
R-square	0.34
Number of firms	142

The standard errors are shown in parentheses. The *, ** and *** show p<0.1, p<0.05 and p<0.01 respectively.This Table reports the regression results of model 2 for group firms. The model explains about the significant economic impact of the expropriation or tunneling. The firm and year fixed effects has been controlled through respective dummies.

In other words, the firms in highest other receivables decile earn three times lower return on assets as compared to lowest other receivables decile firms. Thus, large outstanding other receivable balances have significant economic impact on firm's future returns on assets. The reason behind this economic impact is that firm's considerable portion of assets are not utilized due outstanding receivables which lead to reduced operating performance. Further, the market takes notice of these large other receivables and investments are affected accordingly. These results are consistent and significant as suggested by the literature (Jiang et al., 2010).

4.5 The impact of large other receivables on market valuation

Table 6 reports the results of model 3 which examines the impact of largeoutstanding other receivables on stock prices (market valuation) and future operating performance of group firms.

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Table VI: The Relation between Firm Valuation with RPTs and Other Receivables

Dependent Variable: MVTA			
Variables	Model A	Model B	Model C
Constant	-0.1450	-0.0957	-0.1460
	(-0.5140)	(-0.5150)	(-0.5140)
D_OREC	**-0.0369****		**-0.0349***
	(-0.0162)		(-0.0185)
ROA*D_OREC		**-0.0030***	**-0.0010****
		(-0.0802)	(-0.0023)
ROA	0.0623**	0.00619**	0.00622**
	(-0.0030)	(-0.0030)	(-0.0030)
BVTA	1.289***	1.285***	1.290***
	(-0.1250)	(-0.1250)	(-0.1250)
LEV	0.0185**	0.0182**	0.0185**
	(-0.0086)	(-0.0086)	(-0.0086)
NEG	0.0325	0.0319	0.0324
	(-0.0544)	(-0.0546)	(-0.0544)
SIZE	0.0560	0.0501	0.0564
	(-0.0609)	(-0.0611)	(-0.0610)
SG	-0.0433	-0.0436	-0.0433
	(-0.0421)	(-0.0423)	(-0.0421)
TOPS	-0.0030	-0.0036	-0.0031
	(-0.0046)	(-0.0046)	(-0.0046)
Observations	571	571	571
R-square	0.48	0.47	0.48
Number of firms	129	129	129

The standard errors are shown in parentheses. The *, ** and *** show p<0.1, p<0.05 and p<0.01 respectively. This Table reports the regression results of model 3. The year fixed effects and firm fixed effects are used to control their effects.

In this table, the basic model A presents regression results without the interaction term of ROA and D_OREC. The model B excludes the D_OREC and includes the interaction of ROA with D_OREC. The last model C reports the results of all variables including control variables, and results are significantly consistent. The results show the significant positive coefficients on ROA, LEV and BVTA. However, coefficients on D_OREC and ROA*D_OREC are significantly negative in all models.The coefficients of ROA and ROA*D_OREC in model B reflect that the market assigns lower multiple of reported earnings for the top OREC decile firms and high multiple of earnings for low-OREC firms.

4.6 The role of auditors and the effect of qualified audit opinions.

In this section, the auditors' monitoring role andthe impact of a qualified audit statement on controlling shareholders future tunneling behavior is examined. Table 7 showsthe likelihood of firmsto get unclean auditor opinions, if they have higher other receivables balances.

TableVII: The monitoring role of auditors

Dependent Variables: Dummy of Qualified Opinion (DQOP)		
VARIABLES	Model A	Model B
OREC	**0.0096****	**0.00922***

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	(0.0005)	(0.0006)
L_QOP		**3.475*** **
		(0.252)
ROA	-0.0701***	-0.0644***
	(0.00957)	(0.0115)
SIZE	-0.347***	-0.260***
	(0.0768)	(0.0935)
LEV	0.00133	-0.00130
	(0.0108)	(0.0131)
AREC	-0.00094	-0.00795
	(-0.00117)	(-0.00137)
Constant	0.832	-0.762
	(0.604)	(0.745)
Observations	1,190	1,189
Pseudo R-square	0.12	0.38

The standard errors are shown in parentheses. The *, ** and *** show p<0.1, p<0.05 and p<0.01 respectively. This Table reports the results of Logit model (model 4). The fixed effects are controlled through respective dummies.

The results of model A show that ORECof firms is significant and has positive correlation with thelikelihood of getting anunclean or qualified opinion by auditing firms. This is very important in predicting the likelihood of qualified audit opinion.The second model shows thatOREC remains significant upon inclusion of lag of qualified opinion (L_QOP). It highlights the fact that auditors consider the large outstanding RPTs in terms of other receivables. Therefore, theyissue qualified audit opinions to firms carrying high OREC.

Finally, the following Table 8presents the regression results about the impact of a qualified audit opinion on future tunneling activities. This test is helpful in understanding the firms' tunneling behaviour after receipt of qualified audit opinion and auditors monitoring role in subsequent years. The results in model A show that OREC balances are significantly positive. However, the QOPN is positive but insignificant. These results generally suggest that firms have less significant improvement in tunneling behaviour even after receiving the qualified opinion.

Table VIII: The impact of qualified opinion of auditor on future activities of tunneling.

Dependent Variables:	$OREC_{t+1}$
Variables	Model A
ORECT	0.385***
	(0.111)
QOPN	0.00280
	(0.00357)
SIZE	0.0124***
	(0.00400)
LEV	-0.0847**
	(0.0332)
Constant	-0.0847**

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	(0.0332)
Observations	676
Number of firms	152
R-square	0.18

The standard errors are shown in parentheses. The *, ** and *** show p<0.1, p<0.05 and p<0.01 respectively. This table reports the regression results of model 5.All regressions include firm fixed effects and year fixed effects.

One such reason may be that they show long term loans with marginal interest that too is seldom paid. Secondly, the benefits controlling shareholders gain from tunneling activities and large other receivables out way the economic consequence of tunneling to controlling shareholders. Overall, the results are significant and consistent with literature about RPTs, tunneling and propping (Cheung et al., 2006, 2009; Jiang et al., 2010).

5. Conclusion

This purpose of this empirical studyis to examine and analyze the tunneling as well as propping agency issues through direct approach method i.e., examining the role of RPTsin tunneling or propping and finding the impact of such RPTs on firm's market valuation and future profitability of family business group firms. In the sample period, over four thousand five hundred various RPTs are carried out by the sample firms. The group affiliated, non-group, foreign and state-owned firms have conducted about 68%, 25%, 6% and 1% RPTs respectively. The study finds that controlling shareholders are significantly engaged in both, tunneling and propping through various types of RPTs. Within group firms, controlling shareholders mostly tunnel resources through two types of RPTs, i.e. cash payments and trade of goods & services and prop up resources through cash receipts transactions. Thus, they involve in both tunneling and propping depending upon the different firms and corporate governance related characteristics. The results show that the tunneling related transactions are more significant in firms that have larger size, market value and other receivables balances. Such RPTs are relatively larger in firms that have fewer independent directors on their board, hold less board meetings, own lower percentage shares of largest controlling shareholders and receive more qualified audit opinions. On the contrary, the propping related transactions are predominant in highly leveraged firms with lower return on assets. They also have CEO duality with larger board size and conduct more board meetings. They are less likely to be audited by top 4 audit firms and have moreownership (percentage of shares)owned by the largest controlling shareholders.

The study also finds that the intra-group loan is one of the major RPTs generally used as tunneling transactions as suggested by literature (Jiang et al., 2010). The intra-group loans are shown as large other receivables balances on firms' financial statements, and they are seldom paid or paid back after considerable time at zero or marginal rates. This has significant economic impact on firm's future return on assets because these resources cannot be utilized for firm's operations, sales and profitability. Moreover, it gives indication to market about financial health of the firm which may have impact on investments. The firms involve in tunneling also produce lower future return on assets. The monitoring role of auditors is also evident through qualified

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audit opinions and their impact on returns of the group firms involve in the RPTs. However, the firms are less likely to reduce their outstanding other receivables balances despite getting qualified opinion. The rational for this approach is thateconomic benefits to controlling shareholders for tunneling transactions are much more than they lose through qualified audit opinions and corresponding market reaction to conduct of suchRPTs.

Overall, the results are consistent with the tunneling and propping related literature (Cheung et al., 2006, 2009;Jiang et al., 2010).Moreover, the results indicate that interests of minority shareholders are considerably affected by the hidden operations of the majority shareholders in family business group firms. The possible reasons can be loopholes in the corporate governance mechanism. This can be the lack of visibility to minority shareholders about inner operations of the corporations, fewer independent directors and more family related directors on board, insufficient disclosure of corporate governance and financial information, lax enforcement of existing regulations and/or non-availability of stringent regulations to protect minority shareholders. This argument is further supplemented with the general observation (while collection of data about firms) that websites of many firms are either non-existent, not fully functional or financial statements are not readily or timely available on websites. Finally, it is evident from the results that implementation of corporate governance through effective enforcement mechanism needs to be enhanced by the regulators.Moreover, the minority shareholders need to be more cognizant of the family business group firms' ownership structures, board members, directors' shareholding and related party transactions. The future research can focus on the otherlikely sources of the tunneling including non-operating assets or other incomes.

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