Pakistan Journal of Applied Economics, Vol.27 No.2, (233-248), Winter 2017

AN INVESTIGATION OF ECONOMIC CONSEQUENCES OF FAMILY CONTROL AND AUDIT QUALITY OF FIRMS: A Case Study of Pakistan

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Abstract

The paper, empirically investigates the impact of family control and audit quality on firms' performance, over the period of 2007-2014 for the listed firms at the Pakistan Stock Exchange (PSE), using the Pooled OLS, Fixed effect, and Random effect model. For robustness, the case of reverse causality and cross sectional dependency is taken, using GMM, FGLS and PCSE regression methods. The findings suggest that higher audit quality and the family control are associated with higher firms' performance and findings as these particular estimates are robust for alternative estimation techniques. Overall, the results support the argument presented by alignment hypothesis of agency theory, stewardship theory, resource based view of firms, and the socio-emotional wealth theory.

Key words: Family Control, Audit quality, Firm Performance.
JEL Classification: G31:M42.

I. Introduction

Audit quality has been widely a debatable topic in the field of accounting and finance literature. Especially, the Anderson role in Enron failure raise several questions on monitoring efficiency of audit quality by the BIG 4 [Hakim and Omri (2010) and Crockett and Ali (2015)]. However, little attention has been paid to the issue of audit quality which empirically investigates its economic consequences, and hence, more investigation is needed on it [Francis, et al. (2011)]. For example, Gaynor, et al. (2016) found the higher audit quality results into higher level of financial reporting quality, El Ghoul, et al. (2016) concluded that it leads to lower cost of capital; Robin and Zhang (2014) posit that it lowers the stock price crash risk, and according to Wu and Wilson (2015) it results into higher analyst forecast accuracy. Therefore, the first objevtive of this study is to investigate the economic consequences of higher audit quality and second, to investigate the impact of family controlled companies on firms' performance, as compared to the non-family controlled companies.

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As in case of rest of the world, the presence of family controlled companies make their strategic choice and the outcome debatable [Prencipe, et al. (2014)]. Two schools of thoughts exist in the academia which discuss the differences in the family and non-family controlled business. One proponent argue the positive economic consequences of the family controlled companies [Anderson and Reeb (2003), Maury (2006), Andres, et al. (2008), Achleitner, et al. (2014), Poutziouris, et al. (2015), and Muttakin, et al., (2015)]; whereas, the others argue its negative economic consequences [Saito (2008), Bonilla, et al. (2010), and Ding, et al. (2011)]. Further, these two different views are widely justified under the theoretical paradigm of agency theory [Jensen and Meckling (1976), and Ross (1973)]; and the Stewardship theory [Donaldosn (1990) and Miller et al. (2008)], and Resource based view of the firms [Penrose (1959)].

Several contributions in the knowledge are made. First, we extend the debate on determinates of firms performance and highlight two monitoring mechanisms, i.e., family control and audit quality is further extended; and second, the literature on economic consequences of audit quality in terms of performance which is also extended. Francis, et al. (2011) raised future call on the issue of economic consequences of Audit Quality. To best of the knowledge of authors of this study, it is the first effort which investigates the impact of audit quality on firms performance; as previous studies only discussed: the economic consequences of audit quality in terms of higher level of financial reporting quality [Gaynor, et al. (2016)]; lower cost of capital [El Ghoul, et al. (2016)]; lower stock price crash risk [Robin and Zhang (2014)]; and higher analyst forecast accuracy [Wu and Wilson (2015)]. Third, the present study also investigates the relations of family control with firms performance, while using a new theoretical paradigm which is behavioral agency theory. One of the limitation in the earlier deployed theories was that they do not consider the non-economic preference of goals in context to explaining differences in the family and non-family controlled business; while, behavioral agency theory do take care of it [Fernando, et al. (2014)]. Fourth, prior literature has investigated the economic consequences of family control in context to developed economies, e,g., see, for USA, Anderson and Reeb (2003) and Villalong and Amit (2006); for Western Europe, Maury (2006); for Continental Europe, Barontini, et al. (2006); and for UK, Poutziouris, et al. (2015). However, this study examines the relation of family control firms' performance in context to Pakistan. As compare to developed countries, Pakistan is a country where corruption and judicial inefficiency is high [Porta, et al. (1999)], and there are poor corporate information environment, and weak property protection rights [Hu, et al. (2014)]. The institutional settings play a vital role in determining and shaping the performance outcomes in the family firms [Liu, et al. (2012)]. Therefore, it would be interesting to examine the family firms' performance in such a unique institutional setting. Fifth, the present study also take-care of reverse causality and the cross section dependence.

A large sample of 950 companies observations represents 95 companies within the period of 2007-2014. It is found that a strong evidence of family control and audit

quality enhances the firms' performance. These findings are in line with the view that family control and audit quality are efficient monitoring mechanisms which limits the opportunistic behavior of the management. The study also takes care of endogenity by employing Generalized Method of moment (GMM). For robustness, the alternative estimation techniques like Feasible Generalized least square regression (FGLS) and Panel Corrected Standard Error (PCSE) is also employed, to take care of the cross sectional dependence within the company's error term. The study has significant implications for investors and regulators in understanding the efficiency of the two monitoring mechanisms, i.e., family control and audit quality.

The rest of the study is organized as follows. Section II, explain the theoretical rational of family control and audit quality with firms' performance. Section III presents the methodological framework to examine the earlier set hypotheses. Section IV describe the results and discussion and finally, Section V concludes and provides recommendation for future research.

II. Theoretical Framework and the Related Literature

Different theoretical paradigms explain difference in the strategic choices and its implications for family and non-family controlled business. This theoretical paradigm includes the widely used agency theories: stewardship theory, resource based view of firms, and the recently developed behavioral agency theory.

1. Family Firm and Firm Performance

The 'agency theory' narrative is based on two hypotheses. First, the Alignment hypothesis which considers the family controlled firms as a unit where interest of shareholders and mangers is aligned; whereas, in non-family controlled firms the interest of both parties is not aligned. Hence, it can be concluded that alignment effect in family controlled business curb the opportunistic behavior of management and enhance the firms' performance. Evidence of empirical support is found in the literature which confirms validity of the alignment hypothesis [Anderson and Reeb (2003), Villalonga and Amit (2006), Maury (2006) and Poutziouris, et al. (2015)]. On the other hand, the second narrative is the entrenchment hypotheses which view the family controlled firms as units where majority shareholder of family members expropriates the minority shareholders' wealth, and hence, generate lower firms' performance. This entrenchment hypothesis is also supported by some empirical investigations [Schulz, et al. (2001) and Bonilla, et al. (2010)].

Stewardship theory is also being employed in prior literature which explain the superior performance in family controlled business as compare to the non-family controlled business [(Andres (2008) and Chu (2011)]. This theory considers the managers as stewards which may act in the best interest of an overall organization and do not

prefer ones' own personal goals. However, it argues that the propensity of this stewardship behavior is much more inclined in family controlled companies as compare to non-family controlled companies. As family controlled companies establish such environment and meet those perquisites which are essential for stewardship approach; these perquisites are identified in the form of 3C's (continuity, community, and connectivity) for family controlled business [Miller, et al. (2008)].

The resource based view of firms is argued on the ground that their competiveness is a function of unique resources [Pensrose (1959)] and as family controlled business contain such unique resource (like human, social and patient capital) they may reduce the transaction and human resource cost, and also result in highly loyal workers [Sirrmon and Hitt (2003) and Prencipe, et al. (2014)]. Therefore, these resources provide competitive edge to family controlled business over non-family controlled business, and hence, lead to higher performance in family firms [Peng and Jiang (2010) and Muttakin, et al. (2015)].

The 'socio-emotional wealth theory' emerged and is based on behavioral agency theory. It explain the difference in family and non-family controlled business [Gomez-Mejia, et al. {(2007), (2014)} and Achleitner, et al. (2014)]. This theory elaborates that family firms consider the non-economic goals as a main reference point, while making strategic choice. These non-economic goals are family control, family image, social ties, emotional ties, and the dynastic succession [Berrone, et al. (2012)]. This theory explicitly argues that desire to shift the business to next generation, is a motivation to the family firms to perform well, due to their longer run horizon. Further, the family would also, not like the business to fail, if there is a poor performance.

Based on the alignment view of the agency theory, Stewardship Approach in family firms is at completive edge due to unique resources employed by the family firms. Non-economic goal preference like family and trans-genrational control predict that family firms have better performance as compare to non-family firms.

H1: Family controlled companies have higher performance as compare to-non-family controlled companies.

2. Audit Quality and Firms Performance

Resource based view of firms propagates that unique resource allow companies to get competiveness advantage and hence enable them to translate this edge in to performance. Several scholars identified the key unique resources in BIG-4 (i.e., audit firm culture, professional development opportunities, auditor risk assessment expertise) which enables it to conduct better audit [Kinney, et al. (2004) and Christensen, et al. (2014)]. In addition, Big-4 reputation urge them to conduct audit with high integrity, and hence, act as an efficient monitoring tools which provide reliable financial statements to their clients [DeAngelo (1981)]. Further, their large customer base allow them to keep the audit independent as it make them less dependent on clients fee. Therefore,

the BIG 4 generate better audit quality as compare to the non-BIG 4 [Hung and Wu (2011) and Ball, et al. (2012)]. This efficient monitoring further curbs the opportunistic behavior of management and mitigates the conflict between the principal and agent. As this efficient monitoring mitigates the two anomalies in the form of adverse selection and moral hazards arise, due to the asymmetric information [Biddle, et al. (2009) and Hail and Leuz (2009)]. This better quality audit by BIG-4, generates positive economic consequences. For example, the higher level of financial reporting quality [Gaynor, et al. (2016)], lower cost of capital [El Ghoul, et al. (2016)], lower stock price crash risk [Robin and Zhang (2014)], and higher analyst forecast accuracy [Wu and Wilson (2015)]. Hence, it also predicts the positive economic consequences of higher audit quality in terms of higher firm performance. Therefore, it is hypothesized that

H2: Firms with higher Audit Quality have higher performance as compare to firms with non-higher audit quality

III. Research Methodology

1. Data Collection

All publicly listed companies (excluding finance companies), on the PSE which are traded for the last 8 years and are considered for inclusion in the sample. As major changes have taken place in the accounting standards in 2005 and 2006 [Rehman and Shahzad (2014) and Ma, et al. (2015)] it has been noted that considering the starting study period, after change in accounting standards in the country, it will bring consistency in handling the accounting variables employed in the analysis. The sample size for each variable is 760 firms/year, as 95 public companies listed on the PSE were selected. Firms specific data was collected from banker Thomson data stream, whereas the corporate governance data was arranged from companies' annual reports available on their websites.

2. Variable of the Study

a) Dependent Variable

Following the previous studies, firms performance with return on assets was measured [Anderson and Reeb (2003), Andres (2008), Poutziouris, et al. (2015), Muttakin, et al. (2015)].

b) Independent Variable

This study uses two independent variables: The family control and the audit quality. In line with previous studies, family control is a dummy variable which is

coded as one if majority of the family member are present in a board meeting, otherwise = zero [Cascino, et al. (2010), Bonilla, et al. (2010), Prencipe, et al. (2011), Jain and Shao (2014), Attig, et al. (2015), Vandemaele and Vancauteren, (2015)]. The second variable is the audit quality which is measured as a dummy variable and coded as one if company audit is done by BIG-4, otherwise = zero [Yang (2010), Casino, et al. (2010), Achleitner, et al. (2014), and El Ghoul, et al. (2016)]. Following the previous literature, the controlled variable which may affect the relations of family control and firms' performance are also considered [Anderson and Reeb (2003) and Poutziouris, et al. (2015)]. These controlled variables are firms' age, firms' size, leverage, sales growth, and growth opportunities. Table 1 describes the variables in detail.

3. Estimation Technique

Hypotheses 1 and 2 are tested by conducting six kinds of estimation approaches. These approaches are pooled as: OLS, Fixed Effect, Random Effect, GMM, FGLS, and PCSE.

TABLE 1

Variable Description

Variable	Label	Nature of Variables	Description
Dependent Variables			
Firm Performance	FP	Numerical	FP is measured with ROA which is a ratio of net profit after tax to total Assets.
Independent Variables			
Family-Control	FC	Categorical	Coded 1 if family members own majority seats in board; otherwise=0.
Audit quality	AQ	Categorical	Coded 1 if audit is done by Big 4; otherwise=0
Controlled Variables			
Firm size	Ln TA	Numerical	Logarithm of total Assets is used as proxy for firm size.
Firm age	Ln FA	Numerical	The natural log of the year number when a firm started its Companies.
Leverage	LEV	Numerical	Leverage is the portion of total debt to total assets.
Sales growth	SGR	Numerical	Growth rate in sales over the previous fiscal year.
Growth opportunity	PPSA	Numerical	Growth opportunity is a ratio of capital expenditure to sales.

4. Econometric Model

The test on whether the family control is associated with higher firms performance (FP) using Equation (1) extends the model of Poutziouris, et al. (2015) and adds the audit quality as an additional explanatory variable. It is predicted that alignment effect outweighs the entrenchment effect in family firms. As the SEW model suggests, family firms use preservation of SEW as a main reference point while making strategic choices. Therefore, in order to shift companies to their next generation, preservation of SEW motivate family members to perform well. On the other hand, we predict that shorter horizon lack of preservation of SEW and lack of alignment effect decline the firms performance in NFCs, while making choices. Therefore, to examine the effect of family control and audit quality explicitly on firms' performance, we employ the Pooled OLS, FE, RE, GMM, FGLS, and PCSE models, to estimate Equation (1).

$$FP_{i,t} = \beta_{1i,t} + \beta_2 FC_{i,t} + \beta_3 AQ_{i,t} + \beta_4 LnTA_{i,t} + \beta_5 LnFA_{i,t} + \beta_6 LEV_{i,t} + \beta_7 SGR_{i,t} + \beta_8 PPSA_{i,t} + \beta_{12} \Sigma\, INDUSDUMS_{i,t} + \beta_{13} \Sigma\, YEARDUM_{i,t} + \varepsilon_{i,t} \quad (1)$$

The leveraged on coefficient estimates of family-controlled company (FC) and the audit quality (AQ) examines the relationship of family control and audit quality with firms' performance. The sign of coefficient estimates on FC and AQ are expected to be positive. This implies that, FC and AQ curb the opportunistic behavior of management in these firms and thereby enhance the performance of the firm.

In Equation (1), FC is a dummy variable which is coded as one, if more than 50 per cent family members present in the board, otherwise = 0.AQ which represents the audit quality and is coded as one, if audit is done by BIG-4, otherwise=0. FP represents the firms performance, LnTA is company size measured by natural log of asset, Firm Age (LnFA) is the natural log of the year when the firm started its operations and LEV is leverage which is a ratio of total debt to total assets. Sales growth (SGR) represents the growth opportunity and PPSA is the ratio of capital expenditure to sales. Industry dummies represents sector, whereas year dummies represent the year. The subscript *i* denotes firm *i*, and *t* denotes the fiscal year, where t=1,2,3……..10.

IV. Results and Discussion

1. Descriptive Statistics

The analyses were undertaken by reporting the summary statistics of key variables in Table 2. Descriptive statistics report the results separately for three different categories. The summary statistics include the mean, standard deviation, minimum, and maximum for different key measures. Table 2 reports that 254 public listed companies are family controlled, whereas 506 are non-family controlled with 50 per cent family member as board presence threshold criteria. Mean difference analy-

sis is conducted to find the significance of mean difference of main and controlled variable across FCs and NFCs. Table 3 reports the significance of mean difference of key variables between FCs and NFCs. Then, the t-test is used to check the mean differences for continuous variable. The result reported in Table 3 suggests that there is significant mean difference between the family and non-family controlled companies for different controlled variables, at conventional level of 1 per cent, 5 per cent, and 10 per cent. In particular, family firms have higher performance as compared to non-family firms [Anderson and Reeb (2003) and Poutziouris, et al. (2015)]. Further, the family firms have higher leverage as compared to the non-family firms. [Anderson and Reeb (2003) Gomaiz-Mejia, et al. (2007)] argue that family firms does not wish to dilute their ownership as more equity financing may dilute their ownership and they may loose family control. Therefore, family firms use debt financing more as compared to non-family firms. Table 2, further shows family firms made less investment in property planning and equipment as compared to the non-family firms. Further, the results highlight that family companies' size and sales growth is less as compared to non-family firms.

TABLE 2

Descriptive Statistics, Full Sample, N=760

Variable	Mean	SD	Min	Max
		For Full Sample (N=760)		
ROA	8.943	9.772	-26.2	53.95
LnTA	4.517	1.556	-0.094	8.522
LnFA	1.216	0.18	0.095	1.617
LEV	29.61	23.659	0	100
SGR	1.486	15.956	-49.33	364.3
PPSA	2.799	27.205	0.004	547.6
		For Family Firm (N=254)		
ROA	9.159	9.179	-21.66	53.95
LnTA	3.99	1.169	1.595	8.032
LnFA	1.208	0.168	0.095	1.427
LEV	33.551	22.904	0	97
SGR	0.77	3.164	-4.753	43.74
PPSA	1.371	6.612	0.013	100
		For Non-Family Firm (N=506)		
ROA	8.835	10.063	-26.2	38.51
LnTA	4.781	1.657	-0.094	8.522
LnFA	1.22	0.186	0.095	1.617
LEV	27.63	23.8	0	102.6
SGR	1.845	19.42	-49.43	364.3
PPSA	3.516	32.99	0.004	547.6

Note: See variable definition in Table 1.

TABLE 3

Differences of Mean Test

Variables	FF	NFF	Differences
ROA	9.159	8.835	2.43**
LnTA	3.990	4.781	6.79***
LnFA	1.208	1.220	0.87
LEV	33.551	27.63	-3.27**
SGR	0.770	1.845	0.87
PPSA	1.371	3.516	1.02

Note: See variable definition in Table 1. **,*** represent the significant at 1%,5%,and 10%.

Table 4 reports the results of Pearson correlation matrix. The correlation between the family control and firms' performance is positive and significant. Further, the positive significant correlation of audit quality is found with firms' performance. Hence, the fact that family control and audit quality enhance firm performance, is elaborating. In addition, Table-4 highlights the significant correlation of other variables with firms' performance. However, observed correlation between the independent variables is not more than 0.5, therefore the estimates survive the problem of Multicollinearity concerns.

TABLE 4

Correlation Matrix

	ROA	Family Firm	AQ	LnTA	LnFA	LEV	SGR	PPSA
ROA	1							
Family Firm	0.015**	1						
AQ	0.211***	-0.241***	1					
LnTA	0.112**	-0.239***	0.159***	1				
LnFA	0.096**	-0.031	0.105**	0.026	1			
LEV	-0.433**	0.118**	-0.119***	-0.048	-0.052	1		
SGR	0.085**	-0.031	0.032	0.023	0.024	-0.013	1	
PPSA	-0.090**	-0.037	-0.060*	0	-0.03	0.128***	-0.003	1

Note:* See, variable definition in Table 1. * Significant at 1%; **; Significant at 5%; * Significant at 10%.

2. Results and Discussion

Equation (1) is estimated with pooled OLS regression to test hypotheses 1 and 2. Model 1 of Table 5 reports the estimation of this equation by taking into account the effect of control variables. The results suggest that firms performance is higher in FCs as compared to NFCs; and the coefficients of family firms is positive (FC=1.278) and significant at 5 per cent level. These results support the hypothesis 1 that higher family control acts as a monitoring mechanism and enhance the performance of firms. This is in line key argument of the study that in FCS, most of the CEO's belong to the same family. Therefore, alignment effect outreaches the entrenchment effect as family shareholders and management shares the same vision and have the same long-run investment horizon [Anderson and Reeb (2003), Villalonga and Amit (2006), Maury (2006) and Poutziouris, et al. (2015)]. Further, the Stewardship approach in family firms [Andres (2008)], and the completive edge are due to unique resources employed by family firms [Muttakin, et al. (2015)]; and non-economic goal preference, like family and transgenrational control which enables family controlled companies to perform well as compared to non-family control companies. According to the SEW theory, family firms may want to preserve their socio-emotional wealth agenda of dynasty succession [Prencipe, et al. (2014)]. This agenda motivates and compels the family companies to conduct operation with a goal of dynasty succession. The desire to shift business to their next generation would not be possible if family firms will not perform well. Therefore, family firms would not sacrifice their long-run agenda for the gain of short-run benefits. On the other side, non-family firms' management would prefer a short-run agenda.

Our results further suggest that, audit quality is also associated with higher firm performance as coefficients of the audit quality is positive (AQ=4.87) and significant at 1% level. Rational behind this finding lies in the resource based view of firms which means that unique resource provides competitive edge. Similarly, on the same ground, it is argued that unique resource of BIG-4 in form of audit culture, large customer base enables BIG-4 to remain independent and show integrity in their investigation. Further, reputation and litigation concern of the BIG-4 demand higher audit quality [Ball, et al. (2012) and Christensen, et al. (2015)]. Hence, this efficient monitoring mitigates the two anomalies in the form of adverse selection and moral hazard which arise due to the asymmetric information [Biddle, et al. (2009) and Hail and Leuz (2009)]. This better quality audit by BIG-4 generates positive economic consequences in terms of firms' performance.

3. Robustness Check

However, the Hausman test outcome indicates the choice of fixed effect model; but on the contrary its estimation requires cross section variation in the data; whereas, the data in the study do not contain the shift of family control in terms of percentage within the company across 2008-2014. Therefore, Equation (1) is esti-

TABLE 5

Regression of Firm Performance on Audit Quality, Family Controlled Companies vs. Non-Family Controlled Companies and Control Variables

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Independent Variables	POOLED OLS	FE Model	RE Model	GMM Model	FGLS Model	PCSE Model
FC	1.728**	0.717*	1.061*	1.519**	0.747*	1.872**
	(2.29)	(1.67)	(1.99)	(2.51)	(1.87)	(2.09)
AQ	4.87***	0.403*	2.624**	1.560**	3.701***	3.133**
	(6.14)	(1.86)	(2.23)	(2.68)	(7.26)	(3.21)
			Control Variables			
LnTA	0.626**	0.176	0.531	0.209	0.783***	0.918**
	(2.7)	(0.17)	(1.21)	(1.1)	(3.56)	(2.63)
LnFA	3.016	-7.657	0.048	1.457	2.559	4.343*
	(1.57)	(-1.34)	(0.01)	(1.11)	(1.54)	(1.67)
LEV	-0.198***	-0.154***	-0.172***	-0.050**	-0.164***	-0.168***
	(-13.25)	(-6.35)	(-8.63)	(-2.68)	(-13.63)	(-8.50)
SGR	0.041**	0.02	0.023	0.001	0.016	0.017
	(2.15)	(1.3)	(1.51)	(0.12)	(1.31)	(1.24)
PPSA	0.001	0.003	0.002	0.003	-0.006	-0.006
	(0.08)	(0.38)	(0.31)	(0.73)	(-0.57)	(-0.48)
Constant	-1.949	21.119**	3.514	0.127	-2.51	-5.637
	(-0.70)	(2.58)	(0.7)	(0.06)	(-1.01)	(-1.50)
Industry Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes
N	760	760	760	661	760	760
R2	0.29	0.22	0.41			0.26
F- Stat (P>F)	13.81***	4.23***	109.06***	57.30***	327.29***	152.89***
Pesaran Test	1.745*					
Wald Test	9717.69***					
Wooldridge Test	11.884***					
Hausman Test	20.10*					
Hansen Test	0.132					
AR(2)	0.136					

Note: The authors measure Family Controlled Business (FC) as a categorical variable and regressed it on Firm Performance with considering control variables. FC is a categorical variable. Which is coded as 1 if family Controlled at least 50% shares otherwise=0. *, **, *** represents the significant at 10%, 5%, and 1%, respectively. T-statistics are presented in the parentheses. See variable Definition in Table 1.

mated with fixed and random effect model, as well. In Table 5, Models 2 and 3 show the results of estimation with fixed and random effects.

For robustness, Equation (1) is also estimated with the other estimation techniques. For example, System GMM is employed to examine hypotheses 1 and 2. As the diagnostic test (Wald and Wooldridge) report the presence of heteroscedasticity and auto-correlation (Table 5), the presence of heteroscedasticity and autocorrelation bias the standard errors and make the coefficient less efficient. Hence, the Wald and Wooldridge test was employed to diagnose these issues. As these tests are easy and they can be implemented under general conditions. In addition, several empirical studies which examine the relation of ownership with performance have found the issue of reverse causality [Andres (2008)]. Hence, there is a possibility that higher firms performance will motivate the family members to keep their shares and also push these shares to be sold in the market, when performance is not favorable. Therefore, the System GMM is used to capture the issue of heteroscedasticity, autocorrelation, and endogenity, according to Equation (1).

Model 4 of Table 5 reports the system GMM estimation; the results of which are consistent with pooled OLS estimation. Overall, these results support the hypotheses 1 and 2. Results of Hansen test (in Table 5) confirm the validity of instrument which is used for system GMM estimation. Further, AR(2) shows that there is no second order serial correlation.

In addition, we also employ the Pesaran test to examine cross section dependence within the error terms of companies. Pesaran result (Table 5) reports the existence of cross section dependence. Therefore, the outcome of pooled OLS, Fixed effect, and specially the GMM becomes controversial. Hence, for robustness, we also estimate Equation (1) with FGLS and PCSE to test hypotheses 1 and 2. Model 4 and 5 (Table 5) shows the result of estimation of Equation (1) with FGLS and PCSE, respectively. The results with FGLS and PCSE support hypotheses 1 and 2. Overall, the results have two main findings. First, the family controlled companies have higher performance as compared to the non-family controlled companies. These results are in line with prior research [Anderson and Reeb (2003), Andres (2008) and Poutziouris, et al. (2015)]. The rational findings are that: lesser conflict between the owner and manager [Stein (2003)]; longer horizon [Block, et al. (2011)]; higher concern of family members (Andres, 2008); higher efficiency in terms of cost management and labor productivity [Muttakin, et al. (2015)]. Second, higher audit quality induces higher firm performance. These findings are in line with the argument presented by agency theory stating that higher reputation concern of BIG-4 put pressure on auditors to perform their duty in good spirit and audit well. Therefore, such monitoring mechanisms in the form of BIG-4, limits the opportunistic behavior of management and enhance the firms performance. As far as the controlled variable is concerned, it was found that larger companies have better performance whereas higher leverage reduces the performance of a company. These findings are in line with previous studies [Muttakin, et al. (2015) and Poutziouris, et al. (2015)].

V. Conclusions and Recommendations for Future Research

The study examines the impact of family control and audit quality on firms' performance, over the period of 2007-2014 for listed firms on the Pakistan Stock Exchange. Using various panel data estimation techniques, we noted that higher audit quality and family control are associated with higher firms' performance. This is consistent with alignment view of agency theory, Stewardship approach in family firms, completive edge due to unique resources employed by family firms, and the non-economic goals preference; like family and trans generational control which enable family controlled companies to perform well as compared to the non-family control companies. Further, the higher customer base, audit culture, reputational and litigation concern enable BIG-4 to make their investigation independent; and hence, curb the opportunistic behavior of managers and ultimately enhance firms' performance. Overall, the findings of this study are fruitful for policy makers and minority share holders to understand the economic consequences of family control and audit quality in terms of firms performance.

This study leaves several avenues open for future research, by using performance of firms as economic consequences of audit quality and family control. Future research may address the other economic consequences (like cost of debt, over and under-investment). Further, the present study does not differentiate the audit quality differences in family and non-family controlled companies.

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Bibliography

Abdoul, Ganious Mijiyawa, 2010, What drives foreign direct investment in Africa? An empirical investigation with panel data, African Centre for Economic Transformation (ACET), Accra, Ghana.

Agrawal, S., 2011, The impact of terrorism on foreign direct investment: Which sectors are more vulnerable? CMC Student Scholarship.

Ahmad, N., 2005, Governance, globalization, and human development in Pakistan, Pakistan Development Review, 44: 585-594.

Asiedu, E., 2005, Foreign direct investment in Africa: The role of natural resources, government policy, institutions political instability, University of Kansas working paper.

Ahmad, T., and S. Malik, 2012, Determinants of inflow of foreign direct investment (FDI) in to Pakistan, NICE Research Journal, 5: 93-110.

Azam, M., and N. Khattak, 2009, Social and political factors effect on foreign direct investment in Pakistan, University of Peshawar, Working paper and research reports, 50(4) Par 2: 46-53.

Bissoon, Q., 2011, Can better institution attract more foreign direct investment? Evidence from developing countries, International Conference on Applied Economic, G-320.

Biglaiser, G., and K. DeRouen, 2005, Economic reforms and inflows of foreign direct investment in Latin America, Latin American Research Review, 41.

Buss, M., and C. Hefeker, 2005, Political risk, institution and foreign direct investment, Center for Economic Studies and Info Institute for Economic Research, HWWA, Discussion paper 315.

Brown, R.L., J. Durbin, and J. Evans,1975, Techniques for testing the constancy of regression relations over time, Journal of the Royal Statistical Society, 37: 149-63.

Cole, M., R. Elliott and J. Zhang, 2009, Corruption, and FDI location in China: A province level analysis, University of Birmingham, U.K., World Bank Research working paper 4206.

Dixit, A., 2007, Governance development and foreign direct investment, Max Weber Lecture 2012/01.

D. Raheem, I., 2010, Foreign direct investment, Governance and economic growth trilogy: New evidence from ECOWAS countries using threshold analysis threshold, University of Ibdan, Nigeria.

Elizabeth, Asiedu, 2005, Foreign direct investment in Africa: The role of natural resources, government policy, Institutions Political Instability, University of Kansas working paper.

Fan P.H. et.al., 2007, Does good governance draw foreign capital? Explaining China's exceptional foreign direct investment, World Bank, : 4206.

Globarman, S., and D. Shapiro, 2002, Global foreign direct investment flows: The role of governance infrastructure, World Development, 30: 1899-1919.

Ibrahim D. Raheem, (2010, Foreign direct investment, Governance and economic growth trilogy: New evidence from ECOWAS countries using threshold analysis threshold, University of Ibdan, Nigeria.

John, C. Anyanwu, 2012, Why does foreign direct investment go where it goes? New evidence from African countries, Leads Research Economist, African Development Bank, Temporary Relation Agency B.P., 323, 1002 Tunis.

Kaufmann, D., A. Kraay and M. Mastruzzi, 2006, Governance matters vs governance indicators for 1996-2005, World Bank, Washington, DC.

Kirkpatrick, C., D. Parker and Y. Zhang, 2006, Foreign direct investment infrastructure in developing countries: Does regulation make difference, UNCTAD, 15(1).

Kobissi, N., 2005, Impact of governance, legal system and economic freedom on foreign investment in the MENA region, Journal of Comparative International Management, 8(1): (2005).

Louis, St., 2011, Factors driving US foreign direct investment: Centre for Research in Economic and Strategy, Laura Meier: Washington University.

Lederman, Mengistae, Colin Xu, 2010, Microeconomic consequences and macroeconomic causes of foreign direct investment in Southern African economies, Policy Research working paper 5416.

Mijiyawa, A., 2010, What drives foreign direct investment in Africa? An empirical investigation with panel data: African Centre for Economic Transformation (ACET), Accra, Ghana.

Malik, S., and Q. Ali Malik, 2013, Empirical analysis of macroeconomic indicators determinants of foreign direct investment in Pakistan, Journal of Business Management, (7): 77-82.

Nasir, Z., and A. Hassan, A. (2011) Economic freedom, exchange rate stability and FDI in South Asia working paper and research report, 50(4) part 2s.

P. Wash, J., and J. Yu, 2010, Determinants of foreign direct investment: A sectorial and institutional approach, IMF working paper wp /10/1870.

Pesaran, M.H., and B. Pesaran, 1997, Working with micro fit 4.0: Interactive econometric analysis; (Windows. version], Oxford University Press, 12 Pesaran.

Rui, H,, and M. Zha, 2011, Governance infrastructure and location of foreign direct investment, ADBI working paper series 324.

Shazad, A., D. Mithani, A. Swedi, and F. Fazil, 2012, Political stability and foreign direct investment inflow in Pakistan, British Journal of Arts and Social Science, 9.

Shazad, A. et. al., 2012, An empirical investigation on effect of business environment factors on FDI inflows in Pakistan, The moderating role of political stability, Business and Economic Research, 2.v.

Sadig, A., 2009, The effect of corruption on FDI inflows, Cato Journal, 29(2).

Shepotyle, O., 2006, Regional governance infrastructure: The positive externality on inflow of foreign direct investment. University of Maryland.

Teskoz, S., 2004, Corruption and foreign direct investment an empirical analysis, Munich Graduate School of Economics.

Zhang, J., R. Elliott and M. Cole, 2009, Corruption, and FDI location in China: A province level analysis University of Birmingham, U.K., World Bank Research working paper 4206.