

Related Party Transactions and Performance of Manufacturing Firms in Ghana



FRANK ANTWI

ABSTRACT

The paper ascertains the relationship between related party transactions (RPTs) and performance of manufacturing companies in Ghana. Firms on the Ghana Stock Exchange (GSE) were sampled and secondary data was gathered from their annual financial reports spanning from 2013 to 2017. Considering the outcome of the Hausman test, random effects estimator was used in the regression analysis testing the link between RPTs and firm performance.

The results of the study indicate that there exists a significantly positive relationship between the main variables, i.e. related party transactions and firm performance. This provides evidence that the magnitude of related party transactions that manufacturing firms carry out can enhance their performance. The policy implication here is that, regulatory institutions and key decision makers may have to look at the sector differently when it comes to rules to govern related party transactions as compared to say the banking sector.

All the control variables used in this study turned out to be statistically and negatively related to firm's performance. Leverage negatively affecting firm's performance is possibly due to high interest rates, something which is common in emerging economies like Ghana. The negative influence of ownership concentration is an indication that when the concentration levels of firm ownership increases, it may affect good practices negatively thereby affecting performance in a likewise manner. Lastly, the size of firms being negative and statistically significant supports the school of thought that, the larger the firm, the more the inefficiencies leading to diseconomies of scale; hence, there is the need to improve upon efficiency of large manufacturing firms in Ghana.

Introduction

The corporate scandals in recent past decades have raised much concern among regulators, investors, academicians and other stakeholders about corporate governance across the face of the global economy. However, one area that has not received the needed attention in literature when it comes to accounting and governance is what is known as related party transactions (RPTs), (Pizzo, 2011). A number of countries have subjected RPTs to several regulations the reason being that, it is seen as a double-edged sword and can play dual roles on a firm's operations and performance.

Firms are expected to do credibly well in order to increase shareholders' worth, in other words, the firm's value. Basically, a firm's performance is of significant interest to all stakeholders including the government but it is of more interest to the shareholders who coincidentally, happen to be associated with related party transactions. That is, shareholders especially the most influential ones may end up getting through with some transactions with the firm which under normal circumstances would not have been possible but for their influence. According to Basalighe & Khansalar, (2016), a high amount of RPTs are premised on unfair non-market prices. That is, related parties may be motivated to enter into certain transactions that they won't ordinarily do if not that they are related. For example, a firm that normally sells goods to their owners at a price less than the market price may not be willing to sell to other customers at same price but rather at the market price. The effect of this is that, RPTs could have an impact on the operations and performance of such a firm. The performance of firms whether small or large is relevant for sustainable economic growth. This is because profitable firms create value, jobs, contributes to government's revenue through corporate tax etc. It is against this background that

numerous research works have been carried out to ascertain the key factors influencing performance of firms in both developed and developing economies. However, less attention has been given to a very key business issue like related party transactions and its possible influence on firm performance especially in the developing economies where corporate governance and regulations of firms' behaviour have been generally poor compared to that of the developed ones.

In relation to Ghana, the recapitalisation exercise and the general cleansing of the banking sector by the Bank of Ghana which led to the revocation of licenses of some key commercial banks and Savings and Loans companies brought into the light the issue of close and related party transactions in the financial sector. The question that has been raised therefore, is whether the level of RPTs that is carried out by firms in Ghana does influences their performance or otherwise. Previous studies in this direction have been biased towards Europe, America, Asia etc. compared to African countries especially Ghana.

In effect, there is a major gap in the literature from an emerging market like Ghana. Again, the findings in developed and other developing countries may not be a reflection in the case of Ghana considering the differences that exist in terms of culture, political settings, social structure, regulations, and economic progress among developed and developing economies. Moreover, there have been conflicting results from previous studies on the relationship between related party transactions and firm performance which warrant further research. The study therefore ascertains the relationship between related party transactions and performance of firms in the context of Ghana. Specifically, the study looks at the effect that RPTs have on listed manufacturing firms in Ghana.

Literature Review and hypotheses Development

Literature review on related party transactions (RPTs), relationship between RPTs and performance and the study hypotheses are presented in this section.

Concept and Theories of Related Party Transactions (RPTs)

According to Statement of Financial Accounting Standards No 57, FASB 1982, related party transactions are those that occur between a firm and its subsidiaries, affiliated companies, principal officers, owners or family members, directors or family members, or firms owned and directly controlled by its officers or families. The transaction takes any form of deal- a business, pro contracts, an arrangement, remuneration, etc. and it may take place as one-off phenomenon, recurring or a series of transactions. A related party may enter into transactions with the related firm by using different economic terms as compared to an unrelated or independent party. That is, a party related to a firm may use RPTs in an attempt to move resources to and from the firm due to the level of influence it has on the company's decisions. Usually, such transactions are not well negotiated, bargained and are at arm's length and in some cases not in the best interest of the company itself.

In studying the concept of related party transactions, there have been two major theories in literature which cannot be overlooked. The first one is known as Conflict of Interest hypothesis and the second is Efficient transaction hypothesis. Conflict of interest hypothesis postulates that related party transactions may lead to moral hazard and for that matter, such transactions may be conducted to serve the desires of directors with the intention to appropriate wealth from shareholders. In line with this hypothesis, research has indicated that RPTs may influence independent directors' functions, reducing them into "affiliated" directors thereby weakening corporate governance, a situation that can fuel more and more RPTs to occur in the firm.

Conflict of interest is profound in business settings due to principal-agent issues and companies with extensive properties are mainly concerned with the alignment of shareholders and managers' interest. Another area of concern is how to resolve the conflict of interest between controlling and minority shareholders especially in entities with high concentrated ownership structure. Ownership concentration occurs when ownership of the firm is in the hands of one or a few key shareholders. The cost of ownership concentration has to do with majority shareholders abusing their control with the intention to increase their wealth as against that of minority shareholders. This is done through a form of related party transactions (tunnelling), whereby wealth is transferred out of the business specifically in the interest of majority or controlling shareholders (Jonhson, La Porta, Lopez-de-Silanes, & Shleifer, 2000). However, in instances whereby a firm has a large number of important and highly influential owners, their interests in terms of related party transactions may be different and in that case, control dispersion could be the needed mechanism to ensure interest deviation reduction which in effect can reduce the extent of RPTs as cited in X. Chen & Wang, (2005). Their study revealed that when the number of shareholders of a firm increased by more than 10%, there is a more balance situation between controlling shareholders which in effect leads to a decrease in the frequency and the magnitude of transactions with close and related parties. This suggests that, to reduce related party transactions, one has to think of spreading ownership, that is, reducing ownership concentration. The above supports the school of thought that related party transactions (RPTs) leads to conflict of interest and it may be inconsistent with shareholder wealth maximization.

On the other hand, the efficient transaction theory considers related party transactions as solid business transactions that provide economic needs of the firm efficiently. In other words, the theory sees related party transactions as relevant

business dealings in the interest of the firm and hence genuine attempts by managers to save their firms. In effect, RPTs don't militate against shareholders' interest but rather they are seen as contract arrangements efficiently executed. Bertrand, Mehta, and Mullainathan (2002) and Jian & Wong (2010) posit that in a situation where managers have a compelling interest to achieve set profit targets, related party purchases and sales are utilised to cut down the negative effects of shocks emanating from the industry against listed firms. Also, according to Friedman, Johnson, & Mitton, (2003), contracts with related parties are employed in firms whose performance is poor. By way of cost reduction, there is an idea that related party transactions which in itself is an internal dealing contrary to the normal market contracts, can promote cost reductions, hence cutting down transaction costs; and challenges associated with production are duly controlled. This is in agreement with the transaction cost hypothesis (Coase, 1937; Williamson, 1985) and many studies have provided evidence to support this view (Fan & Goyal, 2006). For example, in environments where there is no efficient labour, capital and products markets, coupled with information and agency problems, firms' activities may be exposed to more risks. In such instances, companies in a group may engage in internal dealings for the purposes of ensuring efficient resource, economies of scale, easy accessibility to funds, etc., and subsequently reducing cost. That is, the sharing of available skills and resources among the firms in the group contributes to profitability positively, compensating for the inefficiencies in the capital market and reducing cost of transaction (Chang & Hong, 2000). The aforementioned theory therefore considers RPTs as beneficial.

Related Party Transactions (RPTs) and Firm Performance

Several researchers have observed that when prominent shareholders use related party transaction to divert resources of a company, corporate value is negatively impacted (Y. Chen, Chen, & Chen, 2009; Claessens, Fan, & Lang, 2002).

Y. Chen et al. (2009) also posit that a listed firm controlled by a related party has its performance negatively influenced by the magnitude of related party transactions. Their results indicate that RPTs such as loans, sales, leases, mortgage, guarantees, etc. contribute negatively to performance of firms.

A study by Munir & Gul, (2010) reveals that RPT negatively correlates with performance while Pozzoli & Venuti, (2014) posit that there is lack of evidence in support of cause-effect relationship between RPTs and firm performance. According to Saha, (2006), most studies on Indian data indicated that the level of related party transactions with companies in a group were negatively associated with performance, but for stand-alone companies the relationship was positive. However, in the same market, others had a contrary view and they reported no clear association between RPTs or tunnelling to firm's value (Cheung, Rau, & Stouraitis, 2006). Cynthia & Sidharta, (2014) carried out a research in Indonesia using listed firms and concluded that the amount of related party transactions (RPTs) had positive impact on performance of the firms.

Again, Khanna & Yafeh, (2000) posit that it is possible for firms under one group to influence profit as they adjust prices or volumes of transactions among sister companies. Others also suggest that shareholders who have the control right can manipulate related party transactions for the purposes of having opportunistic advantage and this supports the conflict of interest view. When listed firms in China are not financially sound or in financial distress, it is likely that their controlling shareholders will carry out related party transactions in attempt to tunnel (or pop up) firms listed (Peng, Wei, & Yang, 2011). Antwi & Kong, (2019) carried out a study on the relationship between RPTs and banks' performance in Ghana and it was revealed that the two variables are negatively related.

Per the exiting literature, there seems to be a difficulty to ascertain the benefit of RPTs to the performance of a profit-oriented firm. Some

studies even find no evidence of positive or negative effects resulting from RPTs. Therefore, there exists lack of consensus among researchers when it comes to the nexus between related party transactions and firm's performance. This provides a good ground for this study to be conducted to further examine the issue, in the context of Ghana's manufacturing sector. Based on the literature reviewed, the study postulates the following hypotheses:

H_0 : Related party transaction (RTP) has no significant relationship with firm performance.

H_1 : Related party transaction (RTP) has significant relationship with firm performance.

Methodology

Population and Sample Selection

The study employs a balanced panel dataset from firms listed on the Ghana Stock Exchange (GSE) and the period spans from 2013 to 2017. Six (6) manufacturing firms were purposively selected based on accessibility and availability of data and their audited annual financial reports within the period under-study (2013-2017) were used. The firm-level data are pulled from the year-end reports filed annually by the listed firms with GSE and from the firms' websites.

Research Model

An empirical regression model is employed to ascertain the effect of RPTs on manufacturing companies' performance and this is in line with earlier researchers such as (Y. Chen et al., 2009). It is worth noting that the study uses natural log of total amount of related party transactions to represent RPTs. The other firm-specific variables used as controls include firm ownership concentration, leverage and firm size. The panel regression model is presented in equation 1 below:

(1)

Where ROA is return on assets, RPT is related party transactions, OWNC represents ownership concentration, LEV is leverage and SIZE is the firm's size and i and t represent firm and year respectively.

Variable Description

Return on assets (ROA) is used to proxy firm performance which is the dependent variable in this study and it is measured as net earnings divided by total assets (Pozzoli & Venuti, 2014). Researchers have used different types of RPTs as independent variable in their studies (Berkman, Cole, & Fu, 2009; Friedman et al., 2003). In this study, total amount in related party transactions is used as independent variable. Also, other control variables which are seen in earlier studies (Navissi & Naiker, 2006; Villalonga & Amit, 2006) are considered. Firm's size, leverage and ownership concentration are used as controls. All variables and the corresponding operational definitions are presented in Table 1 as seen below.

Table 1: Variable Description

Variable	Proxy	Measurement
ROA	Return on Assets	Net profit over total assets
RPT	Related Party Transactions	Natural log of total volume of related party transactions
LEV	Leverage	Total debt divided by total assets
OWNC	Ownership Concentration	Percentage of Minority Shareholding
Size	Firm's size	Natural log of total assets

Diagnostic and Specification Tests

To have reliable outcomes, there was the need to check and work according to the core assumptions of the Linear Regression Model (LRM). In this regard, the study tested for homoscedasticity, multi-collinearity, autocorrelation, normality and correct specification of the regression model. Tests were conducted in order to be able to apply corrective mechanisms when a particular assumption is violated.

Data Analysis and Empirical Results

The empirical results of the study and the types of diagnostic and specification tests carried out in relation to the CLRM assumptions using STATA version 15 are presented in this section. Multi-collinearity, data normality, heteroscedasticity, serial or autocorrelation, and model specification tests were run and the descriptive analysis as well as the regression results are duly presented.

Test for Multi-Collinearity

To develop the panel analysis, inflation factor of the variance analysis was conducted, which was necessary to prove that there was low collinearity. That is, a test for multi-collinearity was conducted by employing Variance Inflation Factor or a Degree of Tolerance. The rule is that any variable that has a VIF greater than 10 ($VIF > 10$) or a degree of tolerance less than 0.1 ($1/VIF < 0.1$) is seen as highly collinear with the rest of the explanatory variables. As shown in table 2 below, the VIFs and their corresponding degree of tolerance ($1/VIF$) for RPT, SIZE, LEV and OWNC show that they are not highly correlated with each other since none of them has a VIF up to 10 or less than a degree of tolerance of 0.1.

Table 2: VIF and Tolerance Test

Variable	VIF	1/VIF
RPT	2.93	0.341233
LEV	1.83	0.546086
SIZE	4.20	0.238145
OWNC	1.35	0.739141
Mean VIF	2.58	

Source: Author's Computation, (2020)

Data Normality Test

The Shapiro and Wilk, (1965) test was performed in order to check for normality and the outcome is presented in table 3 below. As seen in the table, the z-values for ROA, LEV, RPT, SIZE and OWNC were statistically significant at $\alpha=5\%$. For this reason, the null hypothesis of the study is rejected; hence, accepted the alternative hypothesis that the values are not normally distributed. This is an indication that, a more robust and generalised regression estimator is better as it corrects the issue of abnormality associated with data in the classical regression analysis.

Table 3: Shapiro and Wilk test for Data Normality

Variable	Obs.	W	V	Z	Prob. >Z
ROA	30	0.29847	22.298	6.419	0.00000
LEV	30	0.28942	22.586	6.446	0.00000
RPT	28	0.89444	3.188	2.387	0.00850
SIZE	30	0.91981	2.549	1.935	0.02652
OWNC	30	0.85850	4.498	3.109	0.00094

Source: Author's Computation, (2020)

Test for Heteroscedasticity

Heteroscedasticity test (Breusch & Paan, 1979; Cook & Weisber, 1983) was applied to test for homoscedasticity. The result as shown in table 4 below indicates that the chi2 value is 0.47 in regard to the ROA working model and it is statistically significant $\alpha=5\%$ [$p=0.4945>0.05$]. On this basis, the study accepted the null hypothesis and concludes that there was absence of heteroscedasticity in relations to the fitted variables in the working model for ROA.

Table 4: Heteroscedasticity

Model	Chi2(1)	Prob>Chi2
ROA	0.47	0.4945

Source: Author's Computation, (2020)

Serial Correlation

The D-Watson test for autocorrelation was conducted to test the null hypothesis which states that the errors are not serially correlated (Durbin & Watson, 1950,1951). Here, the test produces a d-statistic figure ranging between 0 up to 4. A d-statistic value of 2 means, autocorrelation does not exist, $0<2$ indicates a positive autocorrelation and >2 to 4 indicates a negative autocorrelation in the sample.

As shown in table 5, the Durbin-Watson d-statistic value for ROA was 1.076069; therefore, the study failed to accept the null hypothesis that the errors were not serially correlated and established that there was a first order positive autocorrelation in the study sample. Based on this, a robust and more generalised regression estimator is preferred for the study's model.

Table 5: Serial Correlation

Model	D-Watson d-statistic
ROA	1.076069

Source: Author's Computation, (2020)

Model Specification

According to DeBenedictis and Giles (1996), when there is model misspecification in regression analysis, there could be serious implications on the sampling properties of the estimators as well as the tests. For this reason, the researcher carried out a thorough model specification test by employing the Durbin-Wu-Hausman test in making a choice for the ROA model. The null hypothesis says that random effects model is preferred compared to fixed effects model (Durbin, 1954; Wu, 1973; Huasman, 1978 and Greene, 2012).

As depicted in table 6, the test results for the model specification for the ROA working model has a Chi2 of 2.9, which is statistically significant at $\alpha =5\%$ [$ci2(5) =1.05, (p=0.5638>0.05)$]. Based on this, the study accepted the null hypothesis and the conclusion was that a robust Generally Least Square (GLS) regression estimator is ideal in this study for the model being worked with.

Table 6: Model Specification

Model	chi2(5)	Prob>chi2
ROA	2.96	0.5638

Source: Author's Computation, (2020)

Descriptive Statistics of Study Variables

The data collected was analysed using STATA version 15 and the variables and their descriptive statistics are depicted in Table 7. From the table, ROA had a mean of -0.1379016 with standard deviation of 1.052458. The results also show that the sampled firms had ROA -5.650155 minimum and a maximum of 0.5333574. The mean of LEV is 1.446509 with standard deviation of 3.783964 and 0.1732722 and 21.13003 as minimum and maximum values respectively. The mean value for RPT was 8.993845, and standard deviation of

3.343362 as the minimum and maximum values were 2.564949 and 13.30715 respectively. The mean value of SIZE is 10.81786 with standard deviation of 1.961343 while minimum and maximum values were 5.777652 and 13.1786 respectively. In terms of firm ownership concentration (OWNC), the mean is 57.414, standard deviation is 18.91031 and 18.37 and 78.57 for minimum value and maximum value respectively.

Table 7: Descriptive Statistics

Variables	ROA	RPT	LEV	SIZE	OWNC
Mean	-0.1379016	8.993845	1.446509	10.81786	57.414
Std. Dev	1.052458	3.343362	3.783964	1.961343	18.91031
Minimum	-5.650155	2.564949	0.1732722	5.777652	18.37
Maximum	0.5333574	13.30715	21.13003	13.1786	78.57
Observation	28	28	28	28	28

Source: Author's Computation, (2020)

Regression Results

To ascertain the effect of related party transactions on firms' performance using selected manufacturing firms, ROA as a proxy for performance was regressed on RPT, LEV, SIZE and OWNC and table 8 depicts the results. From table 8, RPT measured as the natural log of total amount in related party transactions has significant and positive relationship with firm's performance. That is, RPT is statistically significant in influencing the performance of manufacturing firms in Ghana. The positive and statistically significant relationship as revealed in this study is contrary to results of some previous studies (Antwi & Kong, 2019; Bona-Sánchez, Fernández-Sénra & Pérez Alemán 2017; Y. Cen et al., 2009; Claessens et al., 2002; and Kohlbeck & Mahyew 2010) but in agreement with Cynthia & Sidharta, (2014) who posit that the magnitude of related party transactions positively and significantly affect performance of firms. Again, the statistically significant relationship existing between RPTs and firm performance is in contrast with that of (Cheung et al., 2006; Pozzoli & Venuti, 2014) who posit no significant relationship exists between RPTs and ROA. Based on the results of the study, the null hypothesis is duly rejected and the alternative is accepted with the conclusion that there exists a significant relationship between related party transactions and performance of

manufacturing firms in Ghana.

Leverage as measured by total debt over total assets has a coefficient that is statistically significant at a significance level of 1%. This is in strong agreement with previous findings (Akomea, Bentil, & Musah, 2018; Antwi & Kong, 2019; Asimakopoulos, Samitas, & Papadogonas, 2009; Goddard, Tavakoli, & Wilson, 2005) who found leverage to be significant and negatively influences firm's performance. However, it is in sharp contrast with Margaritis & Psillaki, (2010) who found a significant and positive correlation between leverage and firm's performance. The study therefore supports the argument that leverage has a significant effect on performance.

Firm size measured as the natural log of assets negatively and significantly influences firm performance and this is in agreement with (Antwi & Kong, 2019; Hassan & A.H.M, 2003) who found firm size to be negatively significant in relation to firm profitability. However, other studies (Alper & Anbar, 2011; Goddard et al., 2005; Molyneux & Seth, 1998) found a positively significant relationship between firm size and firm's performance. This study provides empirical evidence in support of literature that firm size is a determining factor in firm's performance.

Ownership concentration represented by the percentage of the largest shareholder came out as a variable that negatively and statistically influences firm performance at 1% significance level.

This result is contrary to that of (Heugens, Van Essen, Van Oosterout, 2009; Hiraki, Inoue, Ito, Kuroki & Masuda, 2003) who indicated a significant and positive relationship between ownership concentration and profitability but it affirms the findings of (Shah, Kouser, Aamir, & Hussain, 2012) who revealed that an increased concentration levels by way of ownership fuels a reduction in good corporate practices by companies. This is an indication that vesting majority shareholding in one

small group of entity will in turn create room where the entity will impose and control management. This can influence performance negatively especially when independent decision-making is compromised (Khan, Muttakin, & Siddiqui, 2013).

An overall R-Squared (R^2) of 0.9831 is an indication that the independent (explanatory) variables explain 98% of the variations in return on assets (ROA), whilst the unexplained variation is accounted for by other inherent variables not captured in this study. The overall R^2 figure turned out to significant at $\alpha=1\%$. Fixing the coefficient of each variable into the ROA working model, the final model is as shown below:

(2)

Table 8: Robust Random Effects of Related Party Transaction (RPT) on Return on Assets (ROA)

Variable	Coef (β)	Robust Std. Err	z-statistic	Prob (z)
RPT	0.0407045	0.013618	2.92	0.004***
LEV	-0.3065023	0.0070155	-43.69	0.000***
SIZE	-0.0994002	0.0262578	-3.79	0.000***
OWNC	-0.0058034	0.0013683	-4.24	0.000***
CONS	1.353153	0.2308183	5.86	0.000***
R-Squared(R^2)		Wild Chi2(4)		
Within	0.9847	Prob (chi2)	0.0000	
Between	0.9769	Number of Obs.	28	
Overall	0.9831	Number of groups	6	

Source: Author's Computation, (2020)

*, **, and *** denotes level of significance at 10%, 5% and 1% respectively.

Conclusion and Recommendations

The paper investigated the impact that related party transactions have on the performance of listed manufacturing companies on the Ghana Stock Exchange (GSE). The annual financial reports of the firms covering 2013 to 2017 were utilised as the main source of data. The research hypothesis was purely premised on existing literature in the area of study and only firm-specific variables were considered in the regression.

After carrying out the specific tests in line with the basic assumptions of CLRM and carrying out a regression analysis, using Random Effects estimator, the study revealed that related party transactions (RPT) significantly affect firm's performance positively. The null hypothesis of the study is duly accepted and by this, the study provides evidence that the volume of related party transactions (RPTs) that manufacturing companies

carry out can positively affect their performance. This result is in contrast with what was found in the banking sector (Antwi & Kong, 2019) and it could be that the banks' RPTs are not in their favour as compared to that of manufacturing firms which may receive/give financial, material, human and other assistance from/to affiliated individuals and/or companies. The policy implication here is that, policy and law makers may have to look at the two sectors with different lenses when it comes to the issue of RPTs in Ghana.

Variables used as controls in the study are leverage, size and ownership concentration. It was revealed that firm leverage is statistically significant and negatively related with performance of manufacturing firms in Ghana. Leverage negatively affecting firm's performance is possibly due to high interest rates common in developing and emerging economies like Ghana. The managers of the economy therefore have to work hard to bring the interest rate down and maintain it or reduce it further.

With ownership concentration, the study indicates that the relationship between OWNC and RPT is

significant but they are inversely related. This supports the view that if majority shareholding is found in the hands of a small number of firm, it can impose and control management and in effect, profit can be negatively affected especially when the independent decision-making is compromised (Khan et al., 2013). It also corroborates the findings of Shah et al., (2012) who posit that increased levels of concentration by way of ownership structure brings a reduction in best practices. The study therefore recommends control dispersion which could be a mechanism which in effect can reduce the extent of related party transactions (X. Chen & Wang, 2005).

Lastly, firm size is statistically significant and negatively related to performance. This supports the school of thought that the larger the firm, the more the inefficiencies leading to diseconomies of scale. This means that, listed manufacturing firms in Ghana may not be taking advantage of their size to be more efficient and profitable. Therefore, there is the need for them to look into their operational and related efficiency matters in order to become more profitable.

Limitation of the study and suggestions for further research

The study was limited to only listed manufacturing firms in Ghana and only firms which had available and adequate data were considered thereby limiting the number to only six firms. Again, this study considered only firm-specific variables and ignored macroeconomic variables so future studies may consider the macroeconomic variables such as GDP, Inflation, Interest rate etc. Also, future studies can look at other sectors apart from the manufacturing sector and studying a set of sectors together can give a general view of related party transactions across sectors.

References

- Akomea, E., Bentil, P., & Musah, A. (2018). The impact of capital structure decisions on firm performance: The case of listed non-financial institutions in Ghana. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8(4), 1–15.
- Alper, D., & Anbar, A. (2011). Bank specific and macroeconomic determinants of commercial bank profitability: Empirical evidence from Turkey. *Business and Economics Research Journal*, 2(2), 139.
- Antwi, F., & Kong, Y. (2019). Related party transactions and performance of banks in Ghana. *Journal of Business Management and Economics*, 7(9), 20–26. <https://doi.org/10.15520/jbme.v7i09.2695>.
- Asimakopoulous, I., Samitas, A., & Papadogonas, T. (2009). Firm-specific and Economy Wide Determinants of Firm Profitability: Greek Evidence using Panel Data. *Managerial Finance*, 35(11), 930–993.
- Basalighe, A., & Khansalar, E. (2016). A Review of the relationship between Corporate Financial Performance and the Level of Related Party Transactions among Listed Companies on Tehran Stock Exchange. *International Journal of Economics and Finance*, 8(7), 330–343.
- Berkman, H., Cole, R. ., & Fu, L. . (2009). Expropriation through loan guarantees to related parties: evidence from China. *Journal of Banking and Finance*, 33(1), 141–156.
- Bertrand, M., Mehta, P., & Mullainathan, S. (2002). Ferreting out tunneling: An application to Indian business groups. *Quarterly Journal of Economics*, 117(1), 121–148. <https://doi.org/http://dx.doi.org/10.1162/003355302753399463>
- Bona-Sánchez, C., Fernández-Senra, C., & Pérez Alemán, J. (2017). Related-party transactions, dominant owners and firm value. *Business Research Quarterly*, 20(1), 8–17.
- Breusch, T. S., & Pagan, A. R. (1979). A simple test for heteroskedasticity and random coefficient variation. *Econometrica*, 47(5), 1287–1294.
- Chang, S. J., & Hong, J. (2000). Economic performance of group-affiliated companies in Korea: Intragroup resource sharing and internal business transactions. *Academy of Management Journal*, 43(3), 429–448.
- Chen, X., & Wang, K. (2005). Related party transactions, corporate governance and state ownership reform. *Economic Research Journal*, 4, 77–86.
- Chen, Y., Chen, C., & Chen, W. (2009). The impact of related party transactions on the operational performance of listed companies in China. *Journal of Economic Policy Reform*, 12(4), 285–297.
- 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.
- Claessens, S., Fan, J. P. H., & Lang, L. H. P. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *The Journal of the American Finance Association*, 57(6), 2741–2771.
- Coase, R. H. (1937). The Nature of the Firm. *Economica*, 4(16), 386–405. <https://doi.org/10.1111/j.1468-0335.1937.tb00002.x>
- Cook, R. ., & Weisberg, S. (1983). Diagnostics for heteroscedasticity in regression. *Biometrika*, 70(1), 1–10. <https://doi.org/10.1093/biomet/70.1.1>
- Cynthia, U. A., & Sidharta, U. (2014). Corporate governance, size and disclosure of related party transactions, and firm value: Indonesia evidence. *International Journal of Disclosure and Governance*, 11(4), 341–365.
- DeBenedictis, L. F., & Giles, E. A. D. (1996). *Diagnostic testing in econometrics : variable addition, RESET, and Fourier approximations*. Victoria: Victoria, British Columbia.
- Durbin, J. (1954). Errors in variables. *Review of the International Statistical Institute*, 22(1/3), 23–32.
- Durbin, J., & Watson, G. S. (1950). Testing for serial correlation in least squares, I. *Biometrika*, 37(3–4), 409–428.
- Durbin, J., & Watson, G. S. (1951). Testing for serial

- correlation in least squares regression, II. *Biometrika*, 38(1–2), 159–179.
- Fan, J. P. H., & Goyal, V. K. (2006). On the patterns and wealth effects of vertical mergers. *Journal of Business*, 79(2), 877–902.
- Friedman, J., Johnson, E. S., & Mitton, T. (2003). Propping and tunnelling. *Journal of Comparative Economics*, 31(4), 732–750.
- Goddard, J., Tavakoli, M., & Wilson, J. (2005). Determinants of Profitability in European Manufacturing and Services: Evidence from a Dynamic Panel Model. *Applied Financial Economics*, 15(18), 1269–1282.
- Greene, W. H. (2012). *Estimation and inference in binary choice models. Econometric analysis* (Seventh ed). Boston: Pearson Education.
- Hassan, M. K., & A.H.M, B. (2003). Determinants of Islamic banking profitability. *10th ERF Annual Conference*, 16–18.
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica*, 46(6), 1251–1271.
- Heugens, P., Van Essen, M., & van Oosterhout, J. (2009). Meta-analyzing ownership concentration and firm performance in Asia: towards a more fine-grained understanding. *Asia Pacific Journal of Management*, 26(3), 481–512.
- Hiraki, T., Inoue, H., Ito, A., Kuroki, F., & Masuda, H. (2003). Corporate governance and firm value in Japan: evidence from 1985 to 1998. *Pacific-Basin Finance Journal*, 11(3), 239–265.
- Jian, M., & Wong, T. J. (2010). Propping through related party transactions. *Review of Accounting Studies*, 15, 70–105. <https://doi.org/10.1007/s11142-008-9081-4>
- Johnson, S., La Porta, R., Lopez-de-Silanes, A., & Shleifer, A. (2000). Tunneling. *American Economic Review*, 90(2), 22–27.
- Khan, A., Muttakin, M. B., & Siddiqui, J. (2013). Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy. *Journal of Business Ethics*, 114(2), 207–223.
- Khanna, T., & Yafeh, Y. (2000). *Business Groups and Risk Sharing Around the World* (No. No. 01-041).
- Kohlbeck, M., & Mayhew, B. W. (2010). Valuation of firms that disclose related party transactions. *Journal of Accounting and Public Policy*, 29(2), 115–137.
- Margaritis, D., & Psillaki, M. (2010). Capital structure, equity ownership and firm performance. *Journal of Banking & Finance*, 34(3), 621–632. <https://doi.org/http://dx.doi.org/10.1016/j.jbankfin.2009.08.023>.
- Molyneux, P., & Seth, R. (1998). Foreign banks, profits and commercial credit extension in the United States. *Applied Financial Economics*, 8, 533–539.
- Munir, S., & Gul, R. J. (2010). Related Party Transactions, Family Firms and Firm Performance: Some Malaysian Evidence. *Finance and Corporate Governance Conference 2011 Paper*. <https://doi.org/10.2139/ssrn.1705846>
- Navissi, F., & Naiker, V. (2006). Institutional ownership and corporate value. *Managerial Finance*, 32(2), 247–256.
- Peng, W., Wei, J. K. C., & Yang, Z. (2011). Tunnelling or propping. Evidence from connected transactions in China. *Journal of Corporate Finance*, 17(2), 306–325.
- Pizzo, M. (2011). Related party transactions under a contingency perspective. *Journal of Management & Governance*, 17(2), 309–330. <https://doi.org/10.1007/s10997-011-9178-1>
- Pozzoli, M., & Venuti, M. (2014). Related Party Transactions and Financial Performance: Is There a Correlation? *Open Journal of Accounting*, 3, 28–37.
- Saha, J. (2006). *A study of related party transactions in Indian corporate sector*. Indira Gandhi Institute of Development Research.
- Shah, A., Kouser, R., Aamir, M., & Hussain, C. (2012). The impact of the corporate governance and the ownership structure on the firm's financial performance and its risk taking behaviour. *International Research Journal of Finance and Economics*, 93, 44–55.
- Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, 52(3–4), 591–611.
- Villalonga, B., & Amit, R. (2006). How Do Family Ownership, Control, and Management Affect Firm Value? *Journal of Financial Economics*, 80,

385–417.

Williamson, O. (1985). *The economic institutions of capitalism: Firms, markets, relational contracting*. New York: Free Press.

Wu, D. (1973). Alternative tests of independence between stochastic regressors and disturbances. *Econometrica*, 41(4), 733–750.

ABOUT THE AUTHOR

Mr. Frank Antwi teaches at Pentecost University, Sowutuom Accra and assigned to the Accounting and Finance Department under the Faculty of Business Administration. Frank is currently on a study leave pursuing a Doctor of Philosophy Degree (PhD) in Management Science and Engineering (Finance option) at Jiangsu University, Zhenjiang, Jiangsu at Province, China. Before this, he was the programme manager for both banking and finance and insurance programmes at the Pentecost University.

Mr. Frank Antwi has BSc. in Banking and Finance, MPhil in Risk Management and Insurance and has been teaching at the tertiary level since 2013. Frank has published seven (7) papers in peer-reviewed journals including PentVars Business Journal, International Journal Academic Research in Business and Social Sciences, International Journal of Scientific & Technology Research and Journal of Business Management and Economics.

He can be reached on: Email: fantwi@pentvars.edu.gh/frank.fordjour@yahoo.com
Tel: 0245320865