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Family Ownership's Predisposition to the Related Party Transaction and Its Influence on a Stock Price Crash: Evidence from Indonesia*

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Abstract

This study investigates the relationship between family ownership and the stock price crash risk. It believes that this relationship would never be in direct connection. The authors design and then find that family ownership is predisposed, in the first place, to the related party transaction, then the related party transaction causes the future stock price crash. This study infers that employing the power of family ownership creates the Type I agency problem, although this is not relevant for the Type II problem. From the perspective of the hoarding theory, family ownerships produce opaque accounts by blurring financial information. The blurred information is probably hidden in the related party transactions. This study, therefore, splits these transactions into accounts receivable, other accounts receivable and other receivables. Finally, this research concludes that the family ownership affects related party transactions. These then are used as an instrument to influence the leaded related party transaction. The latest, leaded related party transactions influence the future stock price crash. This study infers that related party transactions are abusive practices, especially on the types of receivables. It implies corporate governance's revitalisation.

Keywords: Family Ownership, Predisposition, Related Party, Crash Risk, Bad News Hoarding

JEL Classification Code: G12, G14, G32, M41

1. Introduction

Stock price crash risk (in short: crash risk (CR)) is the risk of a sharp decline in stock prices over a set period due

to sudden news releases containing detrimental company information (Shahab et al., 2020). The higher the crash risk, the greater will be the liquidity risk (Huang et al., 2012; Song, 2015), which can damage the investors' wealth or lower the level of protection for investors (Habib et al., 2018). A crash risk has a heavy-tailed return distribution, making it challenging to diversify (Hutton et al., 2009). This study posits Jin and Myers (2006), who focused on the determinants of the crash risk based on opportunistic management motivations (Type I agency problems), using American, European, Japanese, and Chinese capital market data. For example, they looked at the opacity of the cash flow statement (Cheng et al., 2020), earnings management (Chae et al., 2020; Francis et al., 2016; Hutton et al., 2009) and income smoothing (Chen et al., 2017; Khurana et al., 2018).

Meanwhile, existing studies have explored various alternative ways of blurring information. The theoretical framework of the bad news hoarding theory states that accumulated information blurring is the main trigger for a crash (Jin & Myers, 2006), but information transparency

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depends on the corporate governance formed by ownership structures. Meanwhile, related party transactions (RPT) can be a form of family adaptation that reflects insiders' expropriation. RPT provide a resource transfer mechanism based on insiders' terms or prices according to the related parties' interests (Cheung et al., 2006). We believe that insiders can also control the related parties. Therefore, RPT is no longer used for propping but for fulfilling, increasing, and maintaining insiders' wealth. Family firms that are members of the group have accelerated the practice of RPT. More than 90% of listed firms in the IDX undertake various forms of RPT.

RPT in Indonesia are carried out by people (family members, key management personnel) or listed firms in the IDX (entities that are controlled, jointly controlled, or significantly influenced by the reporting entity) who can agree on the transactions that an unrelated party cannot do (Indonesian SFAS No. 7). In Indonesia, material RPT is 0.5% greater than the paid-up capital that the shareholders must approve further at the stockholders' general meeting (Habib et al., 2017a). Moreover, this material RPT should be disclosed in the notes of the financial statements based on Regulation Number VIII.G.7 of 2000, issued by the Indonesian Capital Market Supervisory Agency. The disclosure is on an ex-post basis, namely after the RPT occur (Habib et al., 2017a). The practice of RPT in Indonesia is considered opportunistic because it tends to damage the company value (Hendratama & Barokah, 2020), improve earnings management (Habib et al., 2017a) and the selection of non-Big-4 auditors (Habib et al., 2017b). However, few studies in Indonesia have focused on the impact of RPT on more extreme events. RPT increases the probability of the crash risk, especially for firms controlled by the government and related shareholders in China (Habib et al., 2020) and the Korean conglomerate (Ryu, 2018). While the determinants of RPT were not disclosed, they argued that the probable increase in stock price crash risk was due to internal risk. In comparison, RPT is a policy that can be explained by a company's ownership characteristics (Munir et al., 2013). RPT are an endogenous variable that is determined by family ownership.

Furthermore, this study investigates the crash risk caused by family ownership which disposes to RPT and thus causes a CR. We propose the following novel argumentation. First, the more significant investor scepticism toward management and the prevalence of an alignment with the entrenchment effects means that the US family firms have a lower crash risk than similar non-family firms (Srinidhi & Liao, 2020). Second, family firms in France tend to have majority shareholders with excess control rights, which provide an entrenchment effect, increasing the crash risk (Boubaker et al., 2014). Second, this study argues that both the alignment and the entrenchment effects are the intention behind

expropriation, while the crash risk increases when there is information blurring about abusive policies (Jin & Myers, 2006). Third, family ownership is essential as a marker of a conflict of interests between family shareholders (insiders) and non-family shareholders (outsiders). Therefore, it requires adaptation to measure the crash risk.

Second, this study complements the importance of the Indonesian capital markets as a research focus. The authors argue in the following pieces of evidence. First, RPT is commonly carried out in Indonesia and regulated by Indonesian SFAS No. 7. Second, Indonesian firms are concentrated in families with a pyramid ownership structure (Claessens et al., 2000; Krishnan & Peytcheva, 2019), which are members of a group structure (OECD, 2009) and the board of directors who are interconnected and even hold double positions (Habib et al., 2017a). Third, weak legal protection for minority shareholders is a consequence of the civil law system. Fourth, we highlight that those research topics relating to the crash risk in Indonesia are limited.

This study assumes that firm-ownership by families in Indonesia uses a pyramid structure and integrates insiders into the family's relationships only if they have an entrepreneurial effect (Claessens et al., 2000). Second, RPT in accounts payable, other accounts receivable, and other receivables are abusive and manifest the insiders' expropriation. Third, insiders cannot be forced to be honest and provide transparent reports, even though there are laws and accounting standards that govern them. Fourth, the bad news is conveyed when there are logical reasons unrelated to opportunism, so any bad news caused by RPT is always obscured.

This research contributes to developing and expanding the scope of previous research (Boubaker et al., 2014; Habib et al., 2020; Hendratama & Barokah, 2020; Nekhili & Cherif, 2011) by linking the causal relationship between family ownership, RPT, and the future crash risk of non-financial firms listed on the Indonesia Stock Exchange. This study's results are expected to be relevant for the emerging markets, at least in Southeast Asia, which have characteristics that are more or less the same as Indonesia has. Understanding what affects the crash risk contributes to hedging shareholder value, where little empirical evidence is documented regarding the fundamental factors of the crash risk in Indonesia. In Indonesia, previous studies focused on the influence of the mandatory adoption of IFRS (DeFond et al., 2015) on the crash risk. This study provides evidence that the RPT is abusive, especially as RPT for other receivables are an endogenous variable that can increase the future crash risk. Therefore, these findings become essential information for investors when making investment decisions, especially in family firms. This study's results could encourage stock market traders, especially firms with family-centred ownership, to implement good corporate governance practices. This study also helps regulators

to update the RPT practices and minority shareholders' protection by considering the potential for RPT to impact more extreme events, namely the crash risk.

2. Literature Review and Hypotheses Development

2.1. Agency Conflict

The agency relationship between principal and agent creates Type I agency problems that arise when listed firm CEOs would probably use their information to act in adverse selection (Ali et al., 2007) for their work contracts (Shleifer & Vishny, 1997). This study recognises that the principal exercises control over the agent to mitigate the Type I agency problem (Shleifer & Vishny, 1997). Meanwhile, the principal's control can solve Type I agency problems, which is not the case with Type II agency problems. Agents or insiders are managers and majority shareholders, while outsiders are minority shareholders. The interests of the majority and minority shareholders are not always the same, and the rights of minority shareholders are not fully protected (Shleifer & Vishny, 1997). The more the majority shareholders control the rights than the cash flow rights, the more severe information asymmetry is likely to occur (Attig et al., 2006) between the shareholders with a negative entrenchment effect (Claessens et al., 2000). NEE is the majority shareholder's action, protected by their control rights, to determine that the accounting policies cover their interests (Fan & Wong, 2002; Kim et al., 2017). The NEE led to the expropriation of minority shareholders (Ali et al., 2007; Claessens et al., 2000; Fan & Wong, 2002; Krishnan & Peytcheva, 2019; Shleifer & Vishny, 1997). Expropriation is the process of using the control exercised by the majority shareholders to maximise their welfare by tunnelling into the minority shareholders wealth (Claessens et al., 2000). This study suggests a method that could be used to reduce agents expropriation in contractual policies, namely lower transfer prices to other companies under common control, the sale of assets to other parties at prices lower than the market prices, and debt with a non-control motive.

2.2. Bad News Hoarding Theory

This research posits Jin and Myers (2006) by explaining the bad news hoarding theory as a rationale for the crash risk. They explained that managers postpone releasing news related to their firms' poor performance but that the amount of bad news being muted is limited to a specific time limit. When the manager are left with no alternatives, the accumulated bad news must be reconciled with the actual situation. Hence releasing the complete collection of bad information at one time is the only option. Investors, of

course, expect a correction in share prices in response to the release of bad news. This correction causes a decrease in the stock price or the returns for the year and the week, which is a very negative extreme. This condition is called a crash. The more opaque the firms' accounting information, the greater the amount of bad news hidden, so the crash risk is higher. The crash risk level is always positively correlated with the blurring of information (Hutton et al., 2009). The authors argue that investors would only observe some firm-specific information, such as monitoring the operating cash flows, earnings and determining the firm value. However, listed firm CEOs could be probably reluctant to disclose the firms' information to the capital market.

2.3. Family Ownership

Family ownership, or family firms, are those firms that have at least one director on the board of directors who is a member of the family that owns or has founded the firm and who controls at least 20% of the voting rights (Srinidhi & Liao, 2020) and is actively involved in the management of the firm through the board of directors (Wang, 2006). Family members are also the owners of the ordinary shares issued by related companies (Wang, 2006). Villalonga and Amit (2006) suggested that family ownership is identified by the existences of a founder, family members, and those who act as the board of directors, board of commissioners, or shareholders of at least 5% individually or in groups. Family firms impact the supply and demand of financial reporting in two ways: the alignment effect and the entrenchment effect (Wang, 2006). From an alignment perspective, insiders act as stewards for outsiders so that the insiders' policies and behaviour are in the common interest and maintain the firm's reputation (Krishnan & Peytcheva, 2019). From an entrenchment perspective, family ownership can create incentives and opportunities to take over the wealth of minority shareholders by manipulating profits. Therefore, this study suggests that family ownership encourages RPT and what causes CR is the entry action.

2.4. Related Party Transactions

This study posits Gordon et al., (2004) and Kang et al., (2014) to explain the RPT between a company and its managers, directors, primary owners or affiliates. RPT is not based on the market price or terms equivalent to fair transactions but rather on insiders' terms or prices according to the related parties' interests (Cheung et al., 2006). RPT affect the company's profit and loss and financial position in the same way as routine transactions in its usual business practices. RPT produce two different behaviours. First, propping was carried out (Gordon et al., 2004) in the form of cash receipts and subsidiary relationships with subsidiaries

(Cheung et al., 2006) which can increase the wealth of the shareholders, predominantly the minority shareholders (Johnson et al., 2000; Kohlbeck & Mayhew, 2017). Second, tunnelling was carried out (Gordon et al., 2004) in the form of asset purchase transactions, asset sales, equity sales, trade relations, and cash loans (Gordon et al., 2004), which is abusive because it reduces the wealth of the shareholders, predominantly the minority shareholders.

This study argues that RPT produces tunnelling behaviour. We further explained that tunnelling occurs on the Indonesia Stock Exchange, characterised as part of an emerging economy. An emerging economy is characterised by a majority of registered firms belonging to business groups (Bertrand et al., 2002; Jia et al., 2013; Kang et al., 2014), and ownership structures tend to be concentrated (Claessens et al., 2000; Rahmat et al., 2020). Likewise, weak legal protection for investors, predominantly the minority shareholders (Leuz et al., 2003; Rahmat et al., 2020), makes them vulnerable to experiencing Type II agency problems (Ali et al., 2007; OECD, 2009; Shleifer & Vishny, 1997).

2.5. Stock Price Crash Risk

The stock price crash risk is the risk of a sharp decline in stock prices over a significant timeframe due to the sudden release of news that is very detrimental to a company (Shahab et al., 2020). The crash risk is the possibility of the frequency of the distribution of company-specific abnormal returns with a high negative value for individual stocks at the third central moment, reflecting the market's correction (Srinidhi & Liao, 2020). Just like a tail-risk, which is the risk caused by abnormal stock price movements, a crash risk has a heavy-tailed return distribution (Hutton et al., 2009). This study posits Hutton et al. (2009) by explaining the causes of the crash risk in firm-specific factors, in which accrual earnings management measures the information's opacity. They explain that management tends not to report the maximum possible profit, partly to reduce the bad news and partially shift discretionary costs to future periods. Earnings management means the company will be judged to have exceeded its actual performance, which causes the stock returns to be more in sync with the market. However, this study argues that the more synchronised the company's weekly returns are, the more likely they are to increase the future crash risk.

2.6. Hypotheses Development

This research posits Ali et al. (2007), who found that family firms provide disclosures related to less transparent corporate governance practices. Therefore, family involvement increases the information asymmetry between

shareholders. Most Indonesian firms are family-owned, with boards of directors consisting of family members (PwC, 2014, 2018) who tend to have multiple positions (Habib et al., 2017a). Boubaker et al. (2014) provide evidence that family firms in France with excess control intend to expropriate and delay the release of bad news. Consistent with the bad news hoarding theory, the accumulation of bad news makes earnings less informative, stock prices are more in sync with the market, and there is a risk. When all the bad news is suddenly released, it could cause significant stock price revisions or crashes (Jin & Myers, 2006). This study considers the characteristics of the Indonesia Stock Exchange. This study argues that firms owned by families in Indonesia tend to expropriate and obscure information. As the accumulation of the blurring of bad news increases, so does the future crash risk. The first alternative hypothesis is stated below.

H1: Family ownership affects the future crash risk positively.

Family business group firms in France (Nekhili & Cherif, 2011), India (Bertrand et al., 2002), Malaysia (Munir et al., 2013), and Korea (Kang et al., 2014) use various forms of RPT as a manifestation of expropriation. The majority shareholders (as insiders) have direct access to company resources (Hong et al., 2017), so from the point of view of NEE, insiders tend to be tempted to abuse their control rights and positions to choose abusive RPT policies. In Indonesia, Hendratama and Barokah (2020) prove that RPT sales are opportunistic transactions due to below-market prices, which affect the productive assets in the long run. However, they have not succeeded in establishing that the RPT for accounts receivable, consisting of the sum of trade receivables, other receivables, and prepaid, are abusive RPT that damage companies' values. Even though the RPT of credit sales are recorded in the accounts receivable, they are potentially uncollectible. Prepaid is a form of cash transfer to a related party for purchases where goods/services may not necessarily be received or, like related purchases, there is a tendency for the strike price to be above the market price (Chen et al., 2009). Similar to the risk of related lending, there is a possibility that the RPT for trade and other receivables are abusive related receivables. Therefore, this study separates the related accounts receivable to determine where the insiders' expropriations are manifested. Furthermore, this study argues that firms owned by families in Indonesia tend to use RPT (trade accounts receivable, other accounts receivable, other receivable) to manifest expropriation. Therefore, this study develops the second alternative hypothesis below.

H2: Family ownership affects future RPT positively.

The authors consider Munir et al. (2013) and Rahmat et al. (2020) to state that firms that carry out abusive RPT have high accrual rates, which indicate low earnings quality. The objective of obscuring information is to signal to the public that the company is in good condition, to achieve company performance measures, it is not at risk, and still trusts outsiders. Another benefit is that insiders can sustain the practice of RPT, and so firms with poor performance can survive. Outsiders do not have comprehensive information to assess stock prices accurately. Consistent with the bad news hoarding theory, information blurring leads to overvaluation by the public, thus forming stock price bubbles, and the company returns are more in sync with the market (Hutton et al., 2009; Jin & Myers, 2006). Over time, insiders cannot control the excessive public judgment at a specific time threshold, making the stock price bubble ready to burst, namely the increased crash risk in the future (Jin & Myers, 2006). Habib et al. (2020) in his study provided evidence that the inherent risk of RPT could increase the crash risk in China. Furthermore, this study builds the idea that the RPT policy, a manifestation of family expropriation, has implications for a higher likelihood of an extreme event in the future, namely the crash risk. Therefore, this study suspects that the higher the proportion of abusive RPT, the higher the future crash risk. We then developed this third alternate hypothesis below.

H3: RPT affects future crash risk positively.

We summarised all the hypotheses in order. In other words, this research constructed a model. This model examines these relationships, either directly or staged, which is presented in Figure 1.

3. Research Method

3.1. Sample and Measurements

This study used secondary data, which primarily consisted of published accounting and financial information. It collected research data from two sources, the Indonesia

Stock Exchange and the Thomson Reuters Eikon database. We used purposive sampling designed with the criteria below. First, non-financial firms were listed on the Indonesia Stock Exchange during the period from 2017 to 2019. Second, this study noted that the Indonesian Financial Accounting Standard Board implemented the Indonesian SFAS No. 7 on January 1, 2016. Second, firms that published audited financial statements for the fiscal year ending December 31. Third, firms with stock prices and return data arrays have at least 26 weeks of stock returns in one fiscal year. Fourth, we selected firms with a positive balance of equity at the beginning of the reporting period. Fifth, there was classified information on the RPT during the sample period. Finally, this study collected 214 observations.

This study used OLS regression to test Hypothesis H2 and 2SLS regression to test hypotheses H1 and H3. The 2SLS regression consisted of exogenous and endogenous variables. In the first regression equation model, family ownership was an independent variable, and RPT were the dependent variable. In the second and third regression equation models, family ownership was an exogenous variable, RPT were an explanatory endogenous variable, and future CR was an endogenous variable.

This research identified family ownership ($FO_{i,t}$) with the existences of a founder or family members occupying either directors or commissioners. Likewise, it specified that the founders' share ownership, of at least 5%, was listed in the firms' annual reports (Villalonga & Amit, 2006). RPT were the transfers of resources, services, or obligations between the firm and its related parties. We highlighted family members, key management personnel, and the listed firms controlled, jointly controlled, or significantly influenced by the reporting entity. This study used RPT_{*i,t*} in an abusive perspective to indicate tunnelling behaviour. This study modified the size of the accounts receivable in Hendratama and Barokah (2020) and Habib et al. (2020), namely trade receivables (RPT_PU_{*i,t*}), other accounts receivable (RPT_PLL_{*i,t*}), and other receivables (RPT_PL_{*i,t*}) related parties, scaled by the firm's total assets. We measured CR by the frequency of the distribution of firm-specific abnormal returns with extreme negative values for individual stocks

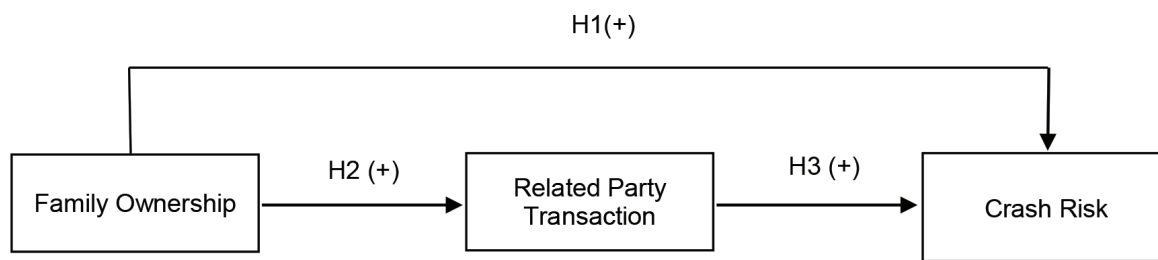


Figure 1: Research Framework

at the third central moment (Chen et al., 2001; Srinidhi & Liao, 2020). This study used the negative skewness of the firm-specific in weekly returns (NCSKEW_{*i,t*}) as a proxy for CR_{*i,t*}, which is stated in the following equation:

$$\text{NCSKEW}_{i,t} = - \left[\frac{n(n-1)^{\frac{3}{2}} \sum w_{i,t}^3}{(n-1)(n-2) \left(\sum w_{i,t}^2 \right)^{\frac{3}{2}}} \right]$$

These notations are that *n* is the number of weeks used in the observation. $W_{i,t}$ is firm-specific weekly returns for firm *i* and week *t*, capturing possible crashes for the company each year based on crash weeks. $W_{i,t}$ is used in calculating the firm-specific crash risk because it uses the firm's actual returns instead of including the effects of market performance as a factor affecting firm-specific crash risk (Hutton et al., 2009). We used $W_{i,t}$ to reduce bias in the daily return data. The value of $W_{i,t}$ is obtained from $\ln(1 + e_{i,t})$ based on the regression equation below.

$$r_{i,t} = \alpha_{i,t} + \beta_1 r_{i,m(t-2)} + \beta_2 r_{i,m(t-1)} + \beta_3 r_{i,m} + \beta_4 r_{i,m(t+1)} + \beta_5 r_{i,m(t+2)} + e_{i,t}$$

We noted that $r_{i,t}$ is the stock return *i* in week *t*, while r_m is the value of the composite stock price index. This study incorporates lead and lag requirements for market index returns that allow asynchronous trading. This study used control variables to ensure that the primary variable only influenced the dependent (endogenous) variable. Based on previous research (Habib et al., 2017a; Nekhili & Cherif, 2011), the control variables in the first equation consisted of (1) the natural logarithm of the firm's asset value in the year *t* (SIZE_{*i,t*}); (2) net income divided by total assets in year *t* (ROA_{*i,t*}); (3) the ratio of total liabilities divided by total assets at the end of fiscal year *t* (LEV_{*i,t*}). Based on previous research (Boubaker et al., 2014; Cheng et al., 2020; DeFond et al., 2015; Habib et al., 2020; Park & Song, 2018; Srinidhi & Liao, 2020), the control variables in the second and third equations consisted of (1) the natural logarithm of the company's asset value in year *t* (SIZE_{*i,t*}); (2) net income divided by total assets in year *t* (ROA_{*i,t*}); (3) the ratio of total liabilities divided by total assets at the end-year *t* (LEV_{*i,t*}); (4) standard deviation of firm-specific weekly returns (SIGMA_{*i,t*}); (5) firm-specific average weekly returns (RET_{*i,t*}).

3.2. Research Model

This research designed the first regression model. The first equation was a regression model for Hypothesis H2, which tests if family ownership (FO_{*i,t*}) determines related party transactions RPT_{*i,t*} as measured by RPT

for trade accounts (RPT_PU_{*i,t*}), other accounts receivable (RPT_PLL_{*i,t*}), and other receivables (RPT_PL_{*i,t*}). The first equation was tested by OLS regression.

$$\text{RPT}_{i,t} = \alpha_0 + \beta_1 \text{FO}_{i,t} + \beta_2 \text{Size}_{i,t} + \beta_3 \text{ROA}_{i,t} + \beta_4 \text{LEV}_{i,t} + e_{i,t} \quad (1)$$

The second and third equations were 2SLS regression models which were used to test the hypotheses H1 and H3. The second equation was the first stage of the regression model, which produced an unbiased explanatory endogenous variable (RPT_{*i,t*}). The third equation was the second stage which showed that family ownership (FO_{*i,t*}) and related party transactions (RPT_{*i,t*}) affected the crash risk (CR_{*i,t+1*}). The second and third equations were tested using the 2SLS regression. Before carrying out a 2SLS analysis, it was necessary to identify the equations.

$$\text{RPT}_{i,t} = \alpha_0 + \beta_1 \text{RPT}_{i,t-1} + \beta_2 \text{RPT.IND}_{i,t-1} + \beta_2 \text{KK}_{i,t} + \beta_3 \text{Size}_{i,t} + \beta_4 \text{ROA}_{i,t} + \beta_5 \text{LEV}_{i,t} + \beta_6 \text{SIGMA}_{i,t} + \beta_6 \text{RET}_{i,t} + e_{1,i,t} \quad (2)$$

$$\text{CR}_{i,t+1} = \alpha_0 + \beta_7 \widehat{\text{RPT}}_{i,t} + \beta_8 \text{FO}_{i,t} + \beta_9 \text{Size}_{i,t} + \beta_{10} \text{ROA}_{i,t} + \beta_{11} \text{LEV}_{i,t} + \beta_{12} \text{SIGMA}_{i,t} + \beta_{13} \text{RET}_{i,t} + e_{2,i,t} \quad (3)$$

Notes:

- α = Constant
- β = Slope of each variable
- $\text{RPT}_{i,t,t-1}$ = Trade receivables (RPT_PU_{*i,t*}), other accounts receivable (RPT_PLL_{*i,t*}), and other receivables (RPT_PL_{*i,t*}) for the firm *i* at the end-period *t*, lag-year *t*–1.
- $\text{RPT.IND}_{i,t-1}$ = Mean of industrial related party transaction, trade receivables (RPT_PU.IND_{*i,t*}), other accounts receivable (RPT_PLL.IND_{*i,t*}), other receivables (RPT_PL.IND_{*i,t*}) for the firm *i* at the end-period *t*, lag-year *t*–1.
- $\text{CR}_{i,t+1}$ = Negative skewness for the firm *i* at the end-period *t*; lead-year *t*+1.
- $\text{FO}_{i,t}$ = Shared owned by a family for the firm *i* at the end-period *t*.
- $\text{SIZE}_{i,t}$ = Logarithm of Total Assets for the firm *i* at the end-period *t*.
- $\text{ROA}_{i,t}$ = Profitability for the firm *i* at the end-period *t*.
- $\text{LEV}_{i,t}$ = Leverage for the firm *i* at the end-period *t*.
- e = Error

This study used RPT and the industrial average RPT (Habib et al., 2020) as instrument variables. Lagged RPT consisted of the trade receivables ($RPT_PU_{i,t-1}$), other accounts receivable ($RPT_PLL_{i,t-1}$), and other receivables ($RPT_PL_{i,t-1}$) related parties in period $t-1$. The mean value of the industry's RPT consisted of average accounts receivable ($RPT_PU.IND_{i,t}$), other accounts receivable ($RPT_PLL.IND_{i,t}$), and other receivables ($RPT_PL.IND_{i,t}$) related parties period t . We obtain the average value of the industry's RPT based on the GICS (Global Industry Classification Standard). This study divides firms into eight sectors, namely: (1) energy; (2) materials; (3) industrials; (4) consumer discretionary; (5) consumer staples; (6) health care; (7) communication services; (8) real estate. We posit (Gujarati, 2004) that the instrument variable is valid if the Sargan-Hansen test obtains a p -value with a high significance of more than 5%.

4. Results

4.1. Descriptive Statistics

This research succeeded in collecting 214 observations. This sample had 71.4% of firms- owned by family members and carried out related transactions. Table 1 shows the descriptive statistics. This study noted that the average proportion of the three RPT types was not different either in period t or $t-1$ and the mean value of the industry's RPT

in period t . The average crash risk ($CR_{i,t+1}$) was 0.0008, and the highest was 1.9983. We noted that the mean of the sample firms having a stock return distribution tended to be negatively skewed or at risk of a crash in varying degrees.

4.2. Statistical Results

Table 2 Panel B shows the results of testing Hypothesis H1, namely the effect of family ownership on the future crash risk. The regression analysis results showed that $FO_{i,t}$ did not affect future $CR_{i,t+1}$, being statistically insignificant for all types of receivables, with a p -value of more than 0.05. Therefore, we did not support Hypothesis H1.

On the other hand, this study tested Hypothesis H2 mutually to prove the influence of $FO_{i,t}$ when associated with the $RPT_{i,t+1}$. Table 3 shows the test results of Hypothesis H2, the effect of family ownership on related party transaction practices. This study proved that $FO_{i,t}$ relates to the $RPT_{i,t+1}$ on the other accounts receivable with a significant beta coefficient of 0.008 and z -value of 2.35. This was significant at the level of 5%. Likewise, the statistical results were the same for the other receivables, with a beta coefficient of 0.006 and a z -value of 2.00. This was also significant at the level of 5%. Therefore, this study supported Hypothesis H2. Meanwhile, two control variables have a positive and significant effect on future RPT.

Table 1: Descriptive Statistics

Variables	Min.	Max.	Mean	Std. Dev
$FO_{i,t}$	0	1	0.7143	0.4528
$RPT_PU_{i,t}$	0.0000	0.3257	0.0234	0.0422
$RPT_PU_{i,t-1}$	0.0000	0.3257	0.0227	0.0422
$RPT_PLL_{i,t}$	0.0000	0.3891	0.0146	0.0383
$RPT_PLL_{i,t-1}$	0.0000	0.3891	0.0157	0.0451
$RPT_PL_{i,t}$	0.0000	0.3493	0.0155	0.0336
$RPT_PL_{i,t-1}$	0.0000	0.3493	0.0156	0.0336
$RPT_PU.IND_{i,t}$	0.0017	0.0336	0.0177	0.0101
$RPT_PLL.IND_{i,t}$	0.0050	0.0708	0.0256	0.0175
$RPT_PL.IND_{i,t}$	0.0005	0.0538	0.0193	0.0124
$CR_{i,t+1}$	-1.2746	1.9983	0.0008	0.2830
$SIZE_{i,t}$	25.5352	33.6934	29.539	1.5709
$ROA_{i,t}$	-0.5014	0.4652	0.0360	0.0996
$LEV_{i,t}$	0.0006	0.9346	0.4728	0.2050
$SIGMA_{i,t}$	0.0089	0.2057	0.0558	0.0302
$RET_{i,t}$	-0.0286	0.0467	0.0005	0.0090

Note: $n = 214$.

Table 2: Statistical Results fo Hypothesis H1 & H3

Panel A (First-Stage)							
Variables	Pred.	RPT_PU _{<i>i,t</i>} (1)		RPT_PLL _{<i>i,t</i>} (2)		RPT_PL _{<i>i,t</i>} (3)	
		Coeff.	t-Stat	Coeff.	t-Stat	Coeff.	t-Stat
Const.	?	0.018	0.80	0.057	1.26	0.040	0.88
RPT_PU _{<i>i,t-1</i>}	+	0.930	36.03***				
RPT_PLL _{<i>i,t-1</i>}	+			0.412	8.09***		
RPT_PL _{<i>i,t-1</i>}	+					0.243	3.68***
RPT_PU.IND _{<i>i,t</i>}	+	0.060	0.52				
RPT_PLL.IND _{<i>i,t</i>}	+			0.174	0.98		
RPT_PL.IND _{<i>i,t</i>}	+					0.382	3.07***
FO _{<i>i,t</i>}	H2:+	-0.002	-0.87	0.001	0.28	0.006	1.21
SIZE _{<i>i,t</i>}		-0.000	-0.67	-0.002	-1.59	-0.002	-1.32
ROA _{<i>i,t</i>}		0.001	0.11	0.018	0.74	0.024	1.00
LEV _{<i>i,t</i>}		0.002	0.30	0.017	1.50	0.013	1.23
SIGMA _{<i>i,t</i>}		-0.035	-0.83	0.111	1.29	0.112	1.32
RET _{<i>i,t</i>}		0.016	0.11	0.240	0.87	-0.141	-0.52
F-Value		236.990***		17.320***		10.390***	
Sargan-Hansen		0.441		0.530		0.072	
Panel B (Second-Stage)							
Variables	Pred.	CR _{<i>i,t+1</i>} (1)		CR _{<i>i,t+1</i>} (2)		CR _{<i>i,t+1</i>} (3)	
		Coeff.	t-Stat	Coeff.	t-Stat	Coeff.	t-Stat
Const.	?	0.174	0.53	-0.054	-0.17	-0.099	-0.27
RPT_PU _{<i>i,t</i>}	H3:+	-0.628	-1.58				
RPT_PLL _{<i>i,t</i>}	H3:+			1.999	2.31**		
RPT_PL _{<i>i,t</i>}	H3:+					2.160	1.34
FO _{<i>i,t</i>}	H1:+	-0.014	-0.38	-0.199	-0.55	-0.020	-0.51
SIZE _{<i>i,t</i>}		-0.005	-0.52	0.003	0.27	0.003	0.28
ROA _{<i>i,t</i>}		0.045	0.26	0.035	0.21	0.030	0.17
LEV _{<i>i,t</i>}		-0.008	-0.10	-0.086	-1.02	-0.060	-0.64
SIGMA _{<i>i,t</i>}		0.249	0.40	-0.100	-0.16	0.143	0.22
RET _{<i>i,t</i>}		5.200	2.63***	4.186	2.13***	4.982	2.43***
R ²		0.181		0.187		0.023	
F-value		1.820		2.290**		1.620	

$n = 214$ sample; Significant Levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

4.3. Robustness Test Results

This study tested the integrity of the results of the 2SLS analysis using three-stage least squares (3SLS). Table 4 shows that, from successive statistical tests of models 1 to 3,

family ownership did not affect future crash risk (CR_{*i,t+1*}), with a negative coefficient of -0.014, -0.020 -0.019. This study further concluded that family ownership did not robustly affect the future crash risk. Meanwhile, the RPT_{*i,t*} for trade accounts receivable had beta coefficients of -0.623

Table 3: Statistical Results fo Hypothesis H2

Variables	Pred.	RPT_PU _{<i>i,t</i>} (1)		RPT_PLL _{<i>i,t</i>} (2)		RPT_PL _{<i>i,t</i>} (3)	
		Coeff.	z-Stat	Coeff.	z-Stat	Coeff.	z-Stat
Const.	?	0.035	0.86	0.083	2.10	0.060	1.57
FO _{<i>i,t</i>}	H2:+	-0.003	-0.59	0.008	2.34**	0.006	2.00**
SIZE _{<i>i,t</i>}		-0.001	-0.46	-0.003	-2.16**	-0.002	-1.63
ROA _{<i>i,t</i>}		0.001	0.08	0.008	0.38	0.024	1.37
LEV _{<i>i,t</i>}		0.013	2.37**	0.039	2.33**	0.026	3.20***
R ²		0.010		0.018		0.034	
F-value		7.360		9.160 [*]		12.930***	

n = 214 sample; Significant Levels: **p* < 0.1, ***p* < 0.05, ****p* < 0.01.

Table 4: Robustness Test Result

Variables	Pred.	CR _{<i>i,t+1</i>} (1)		CR _{<i>i,t+1</i>} (2)		CR _{<i>i,t+1</i>} (3)	
		Coeff.	t-Stat	Coeff.	t-Stat	Coeff.	t-Stat
Const.	?	0.174	0.54	-0.054	-0.17	-0.099	-0.28
RPT_PU _{<i>i,t</i>}	H3:+	-0.628	-1.61				
RPT_PLL _{<i>i,t</i>}	H3:+			2.000	2.35**		
RPT_PL _{<i>i,t</i>}	H3:+					2.160	1.37
FO _{<i>i,t</i>}	H1:+	-0.014	-0.38	-0.020	-0.56	-0.019	-0.52
SIZE _{<i>i,t</i>}		-0.005	-0.53	0.003	0.27	0.003	0.28
ROA _{<i>i,t</i>}		0.045	0.26	0.035	0.21	0.030	0.17
LEV _{<i>i,t</i>}		-0.008	-0.10	-0.086	-1.04	-0.060	-0.66
SIGMA _{<i>i,t</i>}		0.250	0.41	-0.100	-0.16	0.143	0.23
RET _{<i>i,t</i>}		5.201	2.68**	4.200	2.17**	4.982	2.48**
R ²		0.058		0.102		-0.013	
F-value		1.890		2.380**		1.680	

n = 214 sample; Significant Levels: **p* < 0.1, ***p* < 0.05, ****p* < 0.01.

and 2.160 with *p*-values greater than 0.05 for models 1 and 3. This result meant that RPT_{*i,t*} did not affect the future crash risk (CR_{*i,t+1*}). Meanwhile, RPT_PL_{*i,t*} for other accounts receivable had a significant positive effect with a beta coefficient of 2.001 and a *p*-value less than 0.05 in model 2. Thus, this study concluded that related party transactions significantly affect the crash risk consistently, both in the 2SLS and 3SLS tests.

5. Discussion

Family ownership is a company characteristic which, in essence, indicates a conflict of interests between the

principals (Claessens et al., 2000), so there is a possibility that the nature of the entrenched family is mixed with other characteristics that are aligned. This study suggests that family ownership is not an accurate predictor of the crash risk in a direct relationship so that family adaptation is needed to show the natural form of observable entrenchment (acts of expropriation), which can affect the future crash risk.

This study found that family ownership positively influenced RPT. This finding supports the research of Munir et al. (2013) and Nekhili and Cherif (2011). The nature of family entrenchment encourages expropriation, which is manifested in a measurable RPT of other account receivables

and other receivables. This study argues that a conflict of interests between insiders (majority family shareholder) and outsiders (non-family minority shareholder) exists (Type II agency problem). Insiders tend to own cash because, in some firms, only significant cash flow rights can be held (Bhaumik & Gregoriou, 2010). This creates a strong motive for expropriation by “tunnelling” the firm’s cash. This study finds that insiders directly access company resources (Hong et al., 2017). In other words, they have control over the choice of business transaction policies and with whom those transactions are carried out (Shleifer & Vishny, 1997). Therefore they can be tempted to abuse their power and position to choose policies for the RPT. Simultaneously, RPT provides a resource transfer mechanism based on the terms or prices set by insiders, according to the related parties’ interests (Cheung et al., 2006). Insiders can also control the related parties. Therefore, RPT is no longer used for propping but for fulfilling, increasing, and maintaining insiders’ wealth.

In this study, insiders’ expropriation is only reflected in the RPT for other accounts receivables and other receivables, while the RPT for accounts receivable are not a manifestation of the insiders’ expropriation. Based on the agency theory, there is indeed a tendency for insiders to expropriate, but perhaps not in the company’s main activities. This research suggests an alignment effect on the entrenchment effect (Srinidhi & Liao, 2020). Accounts receivable are similarly derived from credit sales, which are the company’s main operating activities. Related sales often occur repeatedly during the company’s accounting period (Kang et al., 2014) to increase the resource allocation’s efficiency (Wong et al., 2015). When the activity is undermined, insiders may also be disadvantaged because no resources are adjusted, except using other account receivables and other receivables.

This research succeeded in extending some previous research by focusing on the determinants of the crash risk from the perspective of Type II agency problems (Chen et al., 2017; Cheng et al., 2020; Francis et al., 2016; Hutton et al., 2009; Khurana et al., 2018; Shahab et al., 2020). Furthermore, this study considered the unique characteristics of the Indonesia Stock Exchange (Boubaker et al., 2014; DeFond et al., 2015; Habib et al., 2020; Harymawan et al., 2019; Hendratama & Barokah, 2020; Munir et al., 2013; Nekhili & Cherif, 2011). This study provides empirical evidence that family ownership has adapted the policies on related party transactions. According to the agency theory, this study’s findings confirm that family ownership is essential for Type II agency problems that cannot predict the future crash risk. Meanwhile, conflicts of interests (expropriation) are reflected in abusive related party transactions. The practice of related transactions provides negative consequences that encourage information blurring.

These findings confirm that information is obscured about the related party transactions’ negative implications under the bad news hoarding theory. Hiding information leads to an overvaluation of the firm’s stock value, thus encouraging future crash risk. In short, related party transactions are endogenous tactics managed by family ownership and could cause a future crash risk.

This study found that RPT positively affects future crash risk. These results are consistent in supporting the research of Habib et al. (2020). The nature of family entrenchment manifested in RPT has negative consequences. For example, the company experiences financial difficulties, a worse future operating performance, the possibility of delisting (Jiang et al., 2010), misallocation and the fragility of the company resources (Bertrand et al., 2002), which can harm outsiders (Cheung et al., 2006). Meanwhile, the market always expects high-profit and positive (abnormal) returns. Based on the agency theory, we conclude that family insiders who control financial reporting use their right of control. Family ownerships choose a specific legal accounting recording method and policies based on applicable accounting standards, such as earnings management, to obscure information. The objective of obscuring information is to signal to the public that the company is doing well while abusive RPT practices persist. We argue that those firms performed poorly but remain in business. Based on the bad news hoarding theory, an analysis shows that information blurring leads to overvaluation by the public, which forms stock price bubbles and company returns that are more in sync with the market (Hutton et al., 2009; Jin & Myers, 2006). However, insiders cannot control the excessive public judgments at a particular time (Jin & Myers, 2006), meaning the stock price bubble is ready to burst, thus increasing the future crash risk.

Meanwhile, other trade receivables are abusive RPT, but apparently, they do not affect more extreme events. These results align with and explain Hendratama and Barokah (2020) research that other accounts receivable and other receivables (prepaid) are abusive RPT. However, only the other trade receivables affect the risk of value destruction, especially in more extreme events, namely a future crash risk. This study concludes that family ownership can affect future collision risks in the Indonesian market when adapting, which shows expropriation in the related party transactions. RPT are an endogenous variable that the family determines. Therefore, RPT reflects a conflict of interests between family and non-family owners, which causes a future crash risk.

6. Conclusion and Limitations

This study investigates family ownership (FO) and related party transactions (RPT), which can trigger a future

crash risk in Indonesia, based on Type II agency problems. This study modifies the size of the RPT by classifying related party receivables into account receivables, other account receivables and other receivables. This study found that family ownership was not a valid predictor of the risk of a crash using direct relationship testing. So it takes a family adaptation that shows the natural form of the observed entrenchment (expropriation) to affect future crash risks. The nature of the family's entrenchment encourages expropriation manifested in the RPT policy (other accounts receivable and other receivables). RPT are an endogenous variable that the family determines. RPT reflect the conflict of interests between family and non-family owners, which have negative consequences, thus encouraging insiders to disclose financial reporting information. Information blurring leads to the public users' overvaluation, which forms a stock price bubble, and company returns are more in sync with the market, increasing the future crash risk.

In practical terms, this study provides evidence that RPT is abusive, especially the RPT types for other accounts receivable, an endogenous variable that can increase the future crash risk. Therefore, these findings can inform investors when they make investment decisions, especially in family companies. This study's results are expected to encourage capital market practitioners, especially companies with family-centred ownership, to implement good corporate governance practices to create a healthier investment climate and economy. Understanding what affects the crash risk makes a significant contribution to hedging shareholder values. This study's results are expected to help regulators update RPT practices and protect minority shareholders by considering the potential for RPT to impact more extreme events.

This study has several limitations. First, this study has not been able to find a relationship between family ownership and RPT for accounts receivable. However, this research can explain that other account receivables and other receivables (prepaid, advanced payment) are abusive RPT. However, only other receivables affect the value destruction in more extreme events, the future stock price crash. Second, this research has not been able to find the relationship between the RPT of accounts and other account receivables to future crash risk. Therefore, any prospective studies can develop research that explains the factors that determine RPT and family ownership mechanisms and then cause a crash risk.

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