

Corporate distress and financial restructuring decisions in different stages of life cycle

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Abstract

Purpose – This research was conducted to investigate the financial restructuring decisions of firms in an emerging country when encountering distress in different corporate life cycles.

Design/methodology/approach – Logistic regression and the KMV Merton model on STATA17 are employed on 645 listed firms on the Ho Chi Minh (HoSE) and Hanoi Stock Exchange (HNX) collected from FiinProX.

Findings – Firms in an emerging country, when encountering financial distress, are more likely to use dividend restructuring rather than the debt and equity strategies. However, at the birth stage, when encountering the distress, they were found to resort to lower dividend payouts to keep business in operation.

Practical implications – The findings suggest that managers should consider the impact of the business lifecycle in making decisions for any scenario, while authorities are encouraged to upgrade legal corridors for dissolution procedures, creating opportunities for firms in some specific life stages.

Originality/value – The study contributes to firm restructuring and corporate-life-cycle theory in emerging markets. Different from previous research, this study theorized and found evidence that firms might follow different rather than common restructuring strategies at different stages of their life cycles when faced with financial distress.

Keywords Financial distress, Corporate restructuring, Restructuring strategies, Corporate lifecycle, Distance-to-default, KMV

Paper type Research article

1. Introduction

The capital markets are witnessing consecutive series of firm failures and rushing to propose policies alleviating weaknesses in the firm's operations. Covid-19 came and revealed pain points of the economic structures in an inherently uncertain society (Worley and Jules, 2020). As Menezes and Gropper (2021) pointed out in the crisis-containment period, despite the speed of governments' reaction with temporary policy development, nations are still encountering insolvency and hiking rates of corporate distress, directly damaging the banking system.

Restructuring soon becomes inevitable to drive the sustainability of corporations and the economic landscape. Strategic turnaround is required to achieve success in corporate performance (Bachmann, 2009). Moreover, while the motivations for restructuring encouraged the development of distressed debt markets and investors, authorities worried about systematic risks had it not been for a proper solution. However, restructuring decisions usually depend on the



life cycle of the firms, which may be subject to the variations in capital and ownership structures (Gbandi and Amisshah, 2014). Restructuring remedies may vary, including asset, operational or financial restructuring, and dividends play an important part in reorganizing firms.

Pashley and Philippatos (1990) concluded that there was a tight relationship between restructuring strategies and firm lifecycles. Life cycle theory assumes that in developed markets, firms react differently depending on the market's sentiment (Cadenovic et al., 2024). Firms' decision to pay low or high dividends depends on whether the market is currently uncertain or positive. The root cause comes from investors' tendency to take high risks or protect their earnings (Goldstein et al., 2015). For example, Singh et al. (2023) found that at the birth stage, firms usually limited their dividend payment to reinvest and build up assets, preparing for the next growth phase. Some studies supported a contrary approach. Jain and Kashiramka (2024) proved that firms had motives to mimic competitors' dividend payouts to attract investors. The question then is if firms at the birth stage from emerging markets may choose a high dividend structure and still recover after facing distress? A similar question applied to other financial restructuring strategies would be whether financially distressed companies in emerging markets might have different restructuring strategies during their lifecycles.

The next four sections below will be presented to address the above questions. In Section 2, a literature review and hypothesis development will be presented. Research techniques and results discussion are shown in Sections 3 and 4, respectively. Finally, several policy implications are discussed in Section 5.

2. Literature review and hypotheses development

2.1 Financial distress and restructuring

The firm's financial distress has been well studied from different perspectives. Altman and Hotchkiss (1993) defined that there are four terms referring to financial distress: failure, insolvency, default and bankruptcy. "Failure" here means businesses have unpaid debt obligations due to the incapability to cover daily costs, leading to financial distress. However, distress may not be represented only by missing payment deadlines. Normally, these firms should have been ready to file for bankruptcy. This is different from the natural decline every firm encounters, requiring immediate restructuring actions to cause a turnaround (Schendel et al., 1976). This concept has been widely used in the literature. Pindado et al. (2008) argued that a firm should be considered financially distressed not only when it formally files for bankruptcy but also when its operating cash flows fall below its financial expenses and its market value shows sustained decline. Recently, Li et al. (2019) conceptualize financial distress as a deterioration in a firm's financial condition, depending on its profitability, liquidity and cash flow status.

Corporate restructuring is the reorganization of a firm's operations to improve its efficiency and competitive advantages. Schendel et al. (1976) were among the first to classify restructuring strategies into operational ones, including cost-cutting or asset sales and managerial ones. Later, Bowman and Singh (1993) conceptualized restructuring in some dimensions of assets, capital and management. There are three types of restructuring strategies, including asset, operational and financial ones that would be considered. These types of restructuring have been studied in some recent works. Ozali (2023) emphasizes that optimizing revenue streams should be a top priority for distressed firms. This can be achieved through cost cutting, effective marketing strategies and diversification of business lines. Besides changes in firm operations, Koh et al. (2015) implemented that asset restructuring allowed firms to dispose of assets or projects that do not contribute to profitability. Firms should also make a careful shift to higher reliance on equity financing and restructure their debt portfolio for higher sustainability (ElBannan, 2021). In this research, only financial restructuring strategies are discussed.

The payment of dividends is a never-ending discussion on capital markets. Scholars are in debates about factors influencing dividend distribution and corporate motives behind each

structure, while few consider it as a strategy for firms' restructuring process. [Coffinet et al. \(2013\)](#) also pointed out that during financial distress, businesses may reduce their dividend payments; high payment structures may even worsen the situation as they may increase the leverage ratio. However, from a different perspective, firms may react differently as dividends convey information about future cash-flow volatility ([Nie and Yin, 2022](#)). Traditional signaling theory mentions that managers can use dividends as a tool for changing market perceptions on future firm earnings ([Miller and Rock, 1985](#)). Therefore, by restructuring dividend payout policy, firms have high hopes of slowing down the distress process and leaving room for turnaround.

Debt and equity restructuring is important for firm reorganizations. Debt-based restructuring involves altering a firm's debt structure through adjustments in leverage levels, interest rates, debt maturity profiles, or the debt-to-equity ratio ([Koh et al., 2015](#)). Increasing leverage, when used appropriately, can offer tax advantages and enforce managerial discipline by obligating firms to meet debt obligations ([Kam et al., 2008](#)). However, excessive leverage may elevate the costs of financial distress ([Molina, 2005](#)). Supporting this view are empirical studies by [Giarto and Fachrurrozie \(2020\)](#). [Jaafar et al. \(2018\)](#) concluded that high leverage ratios are positively associated with the likelihood of financial distress and vice versa. Equity-based restructuring strategies focus on adjustments that affect shareholder equity, like the issuance of new shares or public offerings ([Sudarsanam and Lai, 2001](#)). [Ahsan et al. \(2016\)](#) suggested that equity financing becomes a viable alternative when debt restructuring is not feasible due to the firm's financial limitations.

2.2 Hypothesis development

At each stage, there are identical features representing financial conditions. In the early stages, most firms are small in size, controlled by their proprietors and endure large operating costs. Therefore, facing distress, a company at this stage has to accept a high-interest loan and keep its dividend for reinvestment. On the other hand, the firms at this stage are typically medium-sized. When faced with distress at this stage, it starts to build official financing structures and scale their firms through owner capital diversification. Once reaching maturity, profitability becomes the business's top priority ([Primc and Čater, 2016](#)). At this stage, facing distress, a capital structure with a high leverage ratio and moral hazard within the firm are usually the choices ([Cao and Chen, 2012](#)). Finally, the corporate culture of firms at a declining stage gets more conservative, causing low operating performance and diminishing the capacity to meet payment commitments. Thus, firms at this stage are quickly exhausted.

However, researchers have questioned firms' actions in each lifecycle phase when facing distress in emerging markets. For example, [Cadenovic et al. \(2024\)](#) argued that cash dividend payout could be used by firms to enhance investors' trust to attract even more investments in emerging markets. Similarly, [Le et al. \(2023\)](#) found that, during the birth stage, firms experiencing financial distress still distributed dividends to shareholders. This behavior was believed to keep the firm's image for even more capital attraction. The corporate life-cycle theory thus may not hold true in the emerging markets. Similarly, signaling mechanisms in the [Ambarish et al. \(1987\)](#) study described how the mix of net new stock issued, dividends paid or investments made could be used by corporate insiders to send signals to investors. [Jain and Kashiramka \(2024\)](#) found out the peer impacts among competitors in emerging markets in dividend payout as they had motives to mimic each other's payout decisions. Thus, whether a birth firm may mimic the action of growth and decline firms of high dividend payout rates to attract investors' funding has not been answered yet, especially when firms are facing financial distress.

Concerning debt and equity restructuring, a firm's lifecycles do matter, but their importance in each phase differs among opinions. [Sari \(2022\)](#) specifically addresses that firms experiencing financial distress during the growth and mature phase are more likely to restructure through debt expansion than newly established ones. This is due to the moderate risk level they take and their

established record of credit history. On the contrary, birth firms seek for capital investments as their main funding (Grabowski and Mueller, 1975). But equity restructuring is proved to be ineffective in rescuing newly formed firms already in financial distress (Koh *et al.*, 2015).

2.2.1 Distress and firm restructuring choices. Lasfer (2010) concluded that the more cash-based strategies firms follow, the higher the chances they may recover from distress, as insolvency is their main problem. Business closures or dividend cuts are recommended for the restructuring process and recovered firms are found to be better in cash accumulation also. Then, the hypothesis is

- H1a.* Dividend restructuring strategies are more likely to be used when firms face financial distress.

Although seeking additional external funding resources, including debt or equity, is necessary and creates more cash for firms to make arrangements, they have a low likelihood of securing funding as they are already in distress. Additionally, when a firm encounters disagreements among investors and creditors on solutions to distressed debt, the desire for immediate repayment for every stakeholder rises (Mba, 2019). Therefore, the existence of a distressed debt funding market deserves attention. However, firms in emerging markets have limited opportunities to diversify funding resources due to underdeveloped financial markets (Nguyen, 2022).

- H1b.* Debt restructuring strategies are less likely to be used when firms face financial distress.

- H1c.* Equity restructuring strategies are less likely to be used when firms face financial distress.

2.2.2 Firm structuring in different life cycles. Lifecycle theory has been used to explain the relationship between distress and restructuring. As Koh *et al.* (2015) argued, once encountering financial distress, reform was the only choice for firms. Making restructuring decisions, however, was dependent on each stage of the firm's lifecycle. Lifecycle theory suggests that firms would go through predictable but irreversible growing stages with distinct characteristics at each phase. In general, a firm lifecycle can be divided into four stages: birth, growth, maturity and decline (Koh *et al.*, 2015). Each stage reflects unique firms' activities, structures and development strategies (Greiner, 1998). Studies have supported that the evolution from birth to decline occurred as an order. Robb and Robinson (2014) explained the unique features of new firms and their reliance on external credit financing. These studies highlighted the importance of capital markets, especially bank financing, for the survival of nascent business activity. Once passing this phase with additional funding to build assets, corporate investments may go to the growth phase, preparing for the stable growth in the mature stage (Fazzari *et al.*, 1987). Finally, firms will encounter decline stages.

It has been argued that financial restructuring strategies for birth companies were detrimental, as their assets were mainly financed from external resources instead of accumulated retained earnings (Hall and Lerner, 2010). Birth firms normally have little access to funding, so they rarely make any significant changes in equity or liability. Aivazian *et al.* (2003) found that in emerging markets with poor investor protection, as there was a shortage of financial products, younger firms might pay high dividends to signal better financial health conditions. This information could be highly valued by investors during a financial meltdown. Moreover, it could also be a way to build trust with minority shareholders in the birth and growth stages (Gonenc and Aybar, 2006). Investors' patience for distressed firms may run out, followed by stock fire sales. Frequent declines in stock prices can hit conditions in a firm's debt covenants, shrinking their access to cash (Harrigan and Wing, 2021). Therefore,

H2. Financially distressed firms at the birth stage are less likely to use dividend restructuring strategies.

3. Research methodology

3.1 Data collection

Data are provided by FiinPro-X, which collected from financial statements of 645 listed firms on the Vietnam Stock Exchange, classified based on the categorization system for super-sectors “Industry Classification Benchmark level 2” (Table 1 in Supplementary file). Telecommunication firms are excluded due to insufficient data, while the financial companies are not covered by the paper as a result of differences in accounting policies and systems (Rego, 2003). The observation period is from 2010 to 2022.

3.2 Variable measurement

3.2.1 Financial distress. 3.2.1.1 Identification of financial distress based on actual financial data of businesses. In year t , a firm is viewed as financial distressed if either the business’s operating income is negative for at least three consecutive years (Denis and Kruse, 2000) (i.e. year t , year $t-1$ and year $t-2$) or the business’s earnings before taxes and interest are less than its interest expense for two consecutive years (Asquith et al., 1994) (i.e. year t and year $t-1$).

3.2.1.2 Identification of financial distress based on the KMV-Merton model. The KMV-Merton model (Bharath and Shumway, 2008), a market-based approach that principles from Merton (1974) and the EDF model from Moody’s credit rating firm (Crosbie and Bohn, 2019), is adopted to quantify credit risk by considering equity value as an option. The limited liability of the share capital means that shareholders have the right to pay off all debt to bondholders and then take control of the business, but this is not compulsory. It is suitable to choose the model of Bharath and Shumway (2008) for its creditability and the inability to recreate the EDF model with exclusive measurements of Moody’s. Calculating the distance to default and the probability of default is based on the research with the Excel VBA model by Löffler and Posch (2011). The conventional Black–Scholes formula from the study of Bharath and Shumway (2008) is

$$E_t = A_t \times N(d1) - Le^{-r(T-t)}N(d2) \text{ (} N \text{ is normal distributed)}$$

A common approach containing two unknowns is employed to solve the traditional Black – Scholes formula:

$$\sigma_E = \sigma N(d1)A_t/E_t$$

Assuming that $N(d1) = 1$, $A_t = E_t$ (Equity value – Market capitalization) + L_t (Liabilities value – Short-term and long-term debt value), the approximation is as follows:

$$\sigma = \sigma_E A_t/E_t$$

New equity value and equity volatility are recalculated, using the traditional Black – Scholes formula. Then, the equation for calculation of distance-to-default is

$$DD = \frac{\ln \frac{A_t}{X_t} + \left(\mu - \frac{\sigma_A^2}{2} \right) t}{\sigma_A \sqrt{t}}$$

in which DD is distance-to-default, A_t is total asset value, X_t is book value of debt, μ is firm asset expected rate of return or 10-year Vietnam government bond yield, σ_A is firm asset volatility and t is number of year liabilities to be due, assumed as 1. DD is calculated from iterative procedures minimizing sum of squared percentage differences to 10^{-7} :

$$\left(\frac{\text{New } E_t}{\text{Old } E_t} - 1\right)^2 + \left(\frac{\text{New } \sigma_E}{\text{Old } \sigma_E} - 1\right)^2 \leq 10^{-7}$$

Theoretically, distance-to-default does not imply financial distress; therefore, a firm is considered to be financially distressed when its distance-to-default decreases in two consecutive years (Koh *et al.*, 2015).

3.2.2 Lifecycle. Firms are classified into four lifecycle classifications: birth, growth, decline and maturity. Adopting methods initiated by Anthony and Ramesh (1992), four variables are employed to identify the firm stage: DP or annual dividends is Dividend paid/After-tax income; SG equals percentage sales growth; CEV or capital expenditures is calculated by dividing capital expenditures by market value of equity plus book value of debt; and AGE means age of the firm.

Based on the above literature review on how different industries affect the life cycle phase length of time, observed values are split into quartiles under industry effects. In terms of SG and CEV, if it is smaller than the first quartile Q1, its score will be 4; if Q1 < observed value < Q2, the score will be 2; if observed value ≥ Q3, the score will be 1. On the contrary, the scoring order is reversed with DP and AGE. The scores for each firm year are tallied and all observations are split into quartiles again. Firms are finally categorized into a lifecycle classification based on the cutoff values of the quartiles. Three dummy variables representing birth, growth and decline are used in the analysis.

3.2.3 Restructuring strategies. Hovakimian *et al.* (2004) suggested that cutting 25% in dividend payment (DIV) represents restructuring action.

NetDebt illustrates debt financing and NetEquity means issuing additional shares to consider whether the company will restructure its funding source or not. A firm is considered to have debt or equity restructuring actions when, in year t , the firm's debt or equity ratio is higher than the industry median.

3.2.4 Control variables. The control variables, which are TobinsQ, LnAsset, CashFlow, Return, Volatility and Leverage, are adopted. They, respectively, mean growth opportunities, firm size, operating cash flow, average return rate, risk volatility and financial leverage. While cash flow from operations and overleveraged conditions may indicate financial distress likelihood (Finishtya, 2019), stock returns and their volatility partly predict firms' failure (Bharath and Shumway, 2008).

3.3 The research model

The research model is as follows:

$$\begin{aligned} \text{Restructuring}_{it} = & \beta_1 + \beta_2 \text{Birth}_{it} + \beta_3 \text{Growth}_{it} + \beta_4 \text{Mature}_{it} + \beta_5 \text{FD}_{it} + \beta_6 \text{Birth} \times \text{FD}_{it} \\ & + \beta_7 \text{Growth} \times \text{FD}_{it} + \beta_8 \text{Mature} \times \text{FD}_{it} + \beta_9 \text{TobinsQ}_{it} + \beta_{10} \text{LnAsset}_{it} \\ & + \beta_{11} \text{Volatility}_{it} + \beta_{12} \text{Return}_{it} + \beta_{13} \text{Leverage}_{it} + \beta_{14} \text{CashFlow}_{it} + \varepsilon_{it} \end{aligned} \quad (1)$$

All variables used for the research model are consolidated in Table 1.

The research employs logistic regression analysis to determine the relationship between financial distress, business life cycle, restructuring decisions and their effectiveness. Data are processed by Stata.

4. Results and discussion

4.1 Descriptive analysis

There are 7,038 observations in total (Table 3 in Supplementary file). The combined results show that on average, 24.99% of the observed sample experiences financial distress

Table 1. Definition of variables

Variable	Notation	Measurement	Expected sign
<i>Independent variables</i>			
Financial distress	FD_KMV Merton	Equals 1 if at year t , the firm is in financial distress depending on each method and zero otherwise	+
Lifecycle	FD_actual Birth Growth Mature	Equals 1 if at year t , firm is in the birth stage and zero otherwise. Applied with growth and maturation	+
Recovery	Recovery	Equals 1 if at year t it has increasing distance-to-default in both $t-1$ and t	+/-
<i>Dependent variables – restructuring strategies</i>			
Operational restructuring	INV _{it}	Equals 1 if the firm's investment activities drop by more than 15% from year $t-1$ to $t/t+1$ and zero otherwise	
	COG _{it}	Equals 1 if cost of goods sold/sales revenue is greater than industry median in year t and drop to 4th quartile position in year $t+1$	
Asset restructuring	ASSET _{it}	Equals 1 if the firm's total fixed assets drop by more than 15% from year $t-1$ to $t/t+1$ and zero otherwise	
Financial restructuring	DIV _{it}	Equals 1 if the firm's dividends paid drop by more than 25% in year t and zero otherwise	
	NetDebt _{it}	Equals 1 if in financial distress year t , the firm's net debt is higher than industry median and zero otherwise Net debt = (Debt – Debt interest paid)/Total assets	
	NetEquity _{it}	Equals 1 if in financial distress year t , the firm's net equity is higher than industry median and zero otherwise Net equity = (Proceeds from share issuance, capital contribution – Paid to capital contribution and share buybacks)/Total assets	
<i>Control variables</i>			
Growth opportunities	TobinsQ _{it}	(Market capitalization + Book value of debt)/Total assets at year t	+/-
Firm size	LnAsset _{it}	Natural logarithm of total assets at year t	+/-
Volatility risk	Volatility _{it}	Standard deviations of yearly stock returns at year t	+/-
Return rate	Return _{it}	Yearly mean of ln (Daily stock price _{t} /Daily stock price _{$t-1$}) ^1/250–1	+/-
Financial leverage	Leverage _{it}	Long-term debt/(Market capitalization + Book value of long-term debt) at year t	+/-
Operational cash flow	CashFlow _{it}	Net operating cash flow/Total assets at year t	+/-
Source(s): Authors' compilations			

(according to the KMV Merton model) compared with only 8.4% regarding actual financial data. The reason for different rates of financial distress is that the actual financial data approach cannot point out every situation, and our research time range includes both the 2011–2012 crisis and COVID-19. Besides, average values of the life cycle variables Birth, Growth and Mature indicate that 18.51% of observations belong to the initiation stage; 32.99% and 25.45% of observations lie in the growth and saturation phases, respectively.

4.2 Hypothesis testing

The study examined distressed firms' selection of restructuring strategies in different stages of their lifecycle. Tables 2 and 3 respectively summarize the regression coefficients and odd ratios of the dependent variables calculated based on actual financial statement data and the KMV Merton model.

Table 2. Effects of firm lifecycle and financial distress on restructuring strategies (coefficients)

	DIV KMV (1)	Actual (2)	NetDebt KMV (3)	Actual (4)	NetEquity KMV (5)	Actual (6)
Birth	-0.13	-0.18**	-0.15	-0.10	0.24	0.27*
Growth	-0.22**	-0.22***	0.04	0.05	0.24	0.28*
Mature	-0.12	-0.15*	-0.03	-0.04	0.30**	0.32**
FD	0.35***	0.50**	0.16	-0.78**	-0.42**	-0.27
Birth × FD	-0.24**	-0.38	-0.01	-0.06	-0.15	-0.85
Growth × FD	-0.07	-0.08	-0.08	0.34	-0.13	-0.62
Mature × FD	-0.05	0.04	-0.12	0.20	-0.13	-0.32
CashFlow	-0.61***	-0.60***	-9.57***	-9.75***	-2.91***	-2.95***
Leverage	-0.05	-0.06	1.69***	1.80***	-0.16	-0.13
LnAsset	0.09***	0.10***	0.12***	0.12***	0.07	0.04
Return	-73.76***	-73.01***	45.11***	38.90***	23.29*	22.55
TobinsQ	0.01	0.00	0.28***	0.28***	0.39***	0.41***
Volatility	-0.70***	-0.54***	-0.96***	-0.76***	1.30***	1.01***
Wald chi2	102.13***	127.72***	482.44***	1027.75**	129.69***	93.47***

Note(s): *, ** and *** denote statistical significance at 10%, 5% and 1%, respectively

Source(s): Authors' calculations

Table 3. Effects of firm lifecycle and financial distress on restructuring strategies (odds ratio)

	DIV KMV (1)	Actual (2)	NetDebt KMV (3)	Actual (4)	NetEquity KMV (5)	Actual (6)
Birth	0.88	0.82**	0.86	0.90	1.27	1.31*
Growth	0.80**	0.80***	1.04	1.05	1.27	1.31*
Mature	0.88	0.86*	0.97	0.96	1.35*	1.37**
FD	1.42***	1.64**	1.17	0.46**	0.66**	0.76
Birth × FD	0.79**	0.69	0.99	0.94	0.86	0.42
Growth × FD	0.07	0.92	0.08	1.40	0.88	0.53
Mature × FD	0.96	0.96	0.88	0.82	0.87	0.72
CashFlow	0.54***	0.55***	0.00***	0.00***	0.05***	0.05***
Leverage	0.95	0.94	5.42***	6.04***	0.85	0.87
LnAsset	1.09***	1.10***	1.13***	1.13***	1.07	1.04
Return	0.00***	0.00***	3.90e+19***	7.83e+16***	1.30e+10*	6.18e+09
TobinsQ	1.01	1.00	1.33***	1.32***	1.47***	1.51***
Volatility	0.49***	0.58***	0.38***	0.46***	3.66***	2.75***
Wald chi2	102.13***	127.72***	482.44***	1027.75**	129.69***	93.47***

Note(s): *, ** and *** denote statistical significance at 10%, 5% and 1%, respectively

Source(s): Compilations by the authors

Regarding the dividend restructuring strategy, the coefficients of FD variables in columns (1) and (2) in [Table 2](#) are both positive and significant. This proves that financial distress situations do drive firms to have dividend restructuring actions. [H1a is thus supported](#). In fact, [Alves et al. \(2021\)](#) found that active dividend suspension from the board of management can be considered as an active salary cut to recover from difficulties by companies in the US. Distress puts managing individuals in a position where they must share the pain with firms by reducing costs.

Looking at the coefficient value of FD within the NetDebt strategy, it has a negative value and significance at the 5% significance level. The number indicates that financial distress does not encourage firms to raise their debt burden. *Thus, H1b is partially supported*. Firms can

hardly seek more debt capital when creditors realize their distress risk. Though investment in distressed debt in emerging markets has recently risen in Brazil or India (Altman and Benhenni, 2019), there are numerous hindrances from the distressed asset resolution process to financial instruments.

FD values in both columns (5) and (6) in Table 2 show negative values and reach high significance. Equity restructuring is less likely to be used by firms to recover from financial distress. Therefore, H1c is partially supported. While the result agrees with the pecking order hypothesis, mentioning firms' preference for financing decisions from internal funds to debt and equity as a final resort, the finding is compatible with current situations of equity markets in emerging countries.

FD results with NetDebt and NetEquity are consistent with the studies of Koh et al. (2015), Sudarsanam and Lai (2001) and John et al. (1992). Silva and Saito (2020) explained this phenomenon as a common economic scenario for every type of firm's lifecycle. This comprehensive review notes the pivotal challenges creditors encounter the most when the economy is uncertain. It includes information asymmetry, coordination problems and heterogeneity. Athreya et al. (2019) argued that financial distress is considered to have a persistent effect on a number of firms. This persistence indicates bankers' and investor firms' struggle in finding new financing resources, perpetuating their distressed state.

The regression coefficients of the variables Birth, Growth and Mature in column (2) of Table 2 all have negative signs, and the Odds ratios in Table 3 are less than 1; meanwhile, these variables' coefficients in column (6) of Table 2 have positive values, and the corresponding odds ratios in column (6) of Table 3 record values more than 1, implying that firms are likely to choose a funding restructuring strategy from equity sources and not to apply ceasing dividend payments in all three stages. Firms in the birth stage are more likely to have a low dividend payment structure compared with firms in the decline stage. This result aligns with life cycle theory. In addition, the coefficient of the Birth $\times$ FD variable in column (1) of Table 2 is -0.24 , and the odds ratio in Table 3 is 0.79 , which is significant at the 95% confidence level. This indicates that financial distress contributes to deciding the chosen dividend policy, as both firms are not likely to engage in low dividend policy payouts when encountering economic downturns. Then, birth firms do not restructure their dividend policies while enduring financial distress. Thus, H2 is partially supported.

There is diverse research on the relationship between dividend policy and corporate life cycles. Aligning with Flavin and O'Connor (2017), our finding could be interpreted as managers of firms in the birth stage tend to prefer protecting their investors from market downfall for a more stable equity value. This corroborates with findings from Consler and Lepak (2016), who concluded that dividend initiators or dividend payments in cash were used more in financial distress. These methods were preferred during an economic meltdown because they might signal financial stability and boost investors' confidence in the stocks. It is even more important to firms in the birth stage. Talebnia et al. (2017) defied the association between birth and growth firms and stock price crash risk. Information asymmetry during early stages is so important to mitigate potential stock price volatility; it may suggest future operational success or challenges to panic investors during financial distress.

5. Conclusion

5.1 Findings summary

Our findings can be summarized as follows. First, financial distress stimulates companies to adopt different restructuring strategies. Specifically, financial restructuring strategies through dividend payments are preferred, compared to debt and equity ones, when facing financial struggles.

Second, and more importantly, the study found that dividend strategies implemented by distressed firms may change during the corporate lifecycle in the context of emerging countries. In particular, at the birth stage, the restructuring strategy would be less likely to be the option.

5.2 Theoretical contributions

The research contributes to various theories in financial distress, corporate life cycles (Koh *et al.*, 2015) and corporate actions in each cycle (Hall and Lerner, 2010). In fact, this study theorized and provided evidence for different restructuring strategies used by firms in an emerging country when facing financial distress. More importantly, this study emphasized that the strategies used, especially the important one of dividend payments, may change in different lifecycle stages of a firm. Once encountering financial distress, birth firms do not sacrifice dividends to focus on operations and to hope for recovery. Instead, they may choose other restructuring methods (Gonenc and Aybar, 2006).

This study was not conducted without limitations. First, a number of conventional restructuring strategies, including layoffs or mergers, are not recorded due to lack of supporting data. Further studies are advised to focus more on developing a standard model to accurately recognize firms' traditional and modern restructuring strategies. Second, this study relied solely on a dataset from the emerging country of Vietnam. Future research could retest the framework developed here in other emerging countries.

In summary, this study is among the few to theorize and test how firms would react to financial distress in different lifecycle stages. Findings in this study can be a very important framework for further research in the field and a good piece of evidence for practical implications and recommendations.

Supplementary material

The supplementary material for this article can be found online.

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