INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ACCOUNTING, FINANCE AND MANAGEMENT SCIENCES

OPEN ACCESS JOURNAL

Vol 16, Issue 2, (2026) E-ISSN: 2225-8329

Performance and Firm Recovery Post Covid-19 Outbreak of Construction Sector: The Impact of Cash Flows Activities, Leverage and Liquidity

Nor Izzati Mohd Aziz

Department of Accounting and Finance, Management and Science University, Malaysia

Nor Raihana Asmar Mohd Noor

Faculty of Administrative Science and Policy Studies, Universiti Teknologi Mara, Malaysia.

DOI Link: http://dx.doi.org/10.6007/IJARAFMS/v16-i2/27261

Published Online: 11 April 2026

Abstract

This study investigates the impact of cash flow activities, leverage, and liquidity on the performance and recovery of Malaysian construction firms in the post-Covid-19 period. Using a sample of 68 listed firms from 2021 to 2023, the analysis employs financial ratios such as return on assets (ROA) and return on equity (ROE) as performance indicators. The results indicate that leverage has a significant negative effect on firm profitability, while liquidity and cash flows from operating activities exert a positive and significant influence. Cash flows from investing and financing activities, however, show weak or insignificant relationships with firm performance. These findings suggest that construction firms with higher liquidity and stronger operational cash inflows were more resilient during the recovery phase, whereas reliance on debt financing weakened performance outcomes. The results are consistent with the Trade-off Theory, which emphasizes the balance between the benefits and costs of debt. This research contributes to the understanding of capital structure and financial management during crises by highlighting that optimal recovery is achieved through prudent leverage management and maintaining adequate liquidity reserves. Practical implications are offered for managers and policymakers to strengthen financial resilience in the construction sector against future shocks.

Keywords: Firm Recovery, Firm Performance, Profitability, Cash Flows, Leverage, Liquidity

Introduction

Due to the social distancing order enforced by the government, COVID-19 has seriously disrupted a number of economies worldwide. A World Bank survey estimates that 11 million people in East Asia and the Pacific are vulnerable to poverty (Jafino et al., 2020). The current situation has caused the economy to collapse, severely affecting livelihoods, wages, and employment; disrupting industries and supply networks; and producing suffering, inequity, and difficulties, particularly for the impoverished (Lim, 2020). In 2020, Malaysia's GDP

declines by 5.6%. This is the worst result in almost 22 years, dating back to the Asian financial crisis of 1998, when the fourth quarter recorded an 11.2% decline.

The government has implemented a national lockdown at different stages with a specified standard operating procedure (SOP) starting on 18th March 2020, as an early effort to curb the outbreak. The restrictions put in place during the MCO eras, which had an impact on Malaysia's industrial productivity, thus limits an economic activity. According to a report by the Department of Statistics Malaysia (DOSM) in 2020, the adoption of MCO has resulted in negative growth in all sectors except for the agricultural sector. Lack of domestic and international travel activities made the tourism industry the most impacted. DOSM states that half of the country's tourist industry was contributed from an international travel activity.

Most regions of the world have seen global fluctuations in the income statements and current financial results, which impacted numerous companies. According to (Kalemli-özcan & Laeven, 2003), the increasing in corporate debt forces companies to cut down on investment after economic crises. As a result, both current and expected sales and revenues will continue to decline, eventually lowering the market value of a company's assets. People's ability to travel and even work is restricted by the MCO, which reduces their purchasing power. Fewer households are not permitted to leave the house, and people have less money to spend. As a result, there will be less demand in the market. Sales will decline if there is a significant decline in the demand for products and services (Shen et al., 2020). As both of these are essential for a company to carry out its operations, the reduction in sales has the effect of reducing liquidity and cash flows from those operations. The company might not be able to survive in the market if both liquidity and cash flows are not efficiently managed, particularly during a crisis like the Covid-19 outbreak (Frank & James, 2014). In the end, this will have an unfavorable effect on the business's performance in the 2020 fiscal year.

A company's recovery process is not an easy path. The post-Covid-19 era has presented numerous difficulties, including as a worldwide economic downturn, an increase in living expenses, supply chain disruptions, and geopolitical developments. Companies have to adjust to the new normal of doing business, which includes using technology for digital transformation, e-commerce, and remote work. The economy's overall growth has been impacted since business performance in trade, investment, and employment has not recovered to robust levels.

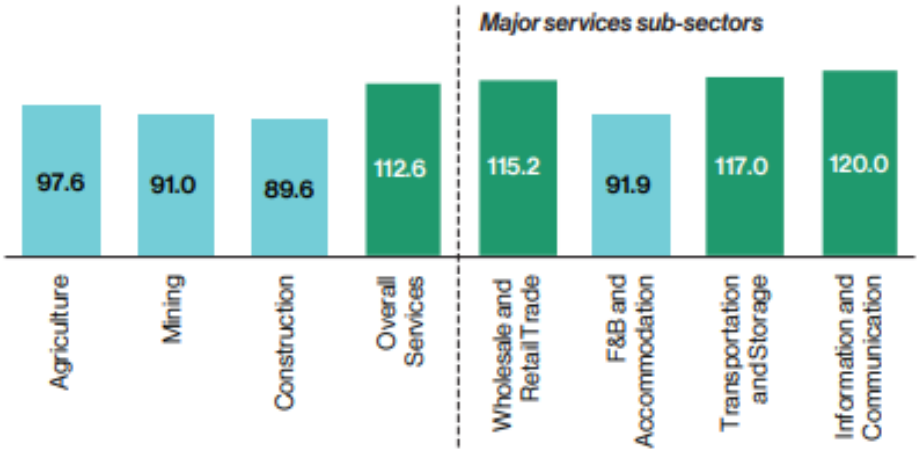
Background of Study

One of the major industries or sectors driving economic growth in Malaysia prior to the Covid-19 epidemic was the construction sector. This sector has consistently contributed significantly to the national economy, even in its joint ventures with other sectors. Throughout many years, the productivity of the construction industry has a big impact on the expansion of the national economy (Chia et al., 2014). Due to the lack of cash flow, a prolonged MCO may place contractors in financial distress, particularly smaller ones. This might potentially have a snowball effect on the construction sector, causing projects that the MCO postponed to experience additional delays as a result of contractor insolvency (Sun, 2020).There are uncontrollable challenges facing this industry even in the midst of the Movement Control Order (MCO) era. Pertaining this, most construction companies have stopped building

operations in the building sector, and workers are urged to work from home (Farah, 2020). Following a two-year downward trend, the construction industry as a whole saw an 8.8% increase in 2022, according to the Department of Statistics Malaysia (DoSM).

Table 1 below shows that during the post pandemic, the recovery in the construction sector was slower, especially in the residential and civil engineering subsectors (BNM, 2023).

Table 1
Sectors/Activities with Uneven Recovery (2Q 2023)



Source: Department of Statistics Malaysia, BNM estimates

Impact of COVID-19 on cash flow activities
Cash flow is crucial to any business. A vital aspect of the firm, particularly in the construction sector, requires consistent cash inflow for things like paying workers, claims, purchase orders, etc. (Payne, 2019; Samman, 2018). A company's cash flow is a good indicator of its general performance. Over time, cash flow issues have been the primary cause of the contractor's insolvency. As quoted in Gavin (2011), the main reason why contractors frequently face bankruptcy is because "they run out of funds and not because they run out of work". The likelihood of cash flow issues in the construction sector rises in light of the COVID-19 pandemic. Efficient use of scarce resources can be achieved from proper cash flow management, in order to ensure a high return on equity for investors. Any firm that wants to run effectively and efficiently has to manage its cash flow since even profitable companies that do not manage their cash well risk running out of liquidity. Profit is not equal to cash, which is why many businesses in Ghana, especially those in the manufacturing sector, have poor financial performance, which makes it difficult for them to pay taxes, make payments on time, and distribute dividends to shareholders because they lack the necessary capital (Ankomah et al., 2023)

Impact of COVID-19 on firm leverage and liquidity
Globally, these two financial ratio measurements have been affected in term of dropped in value which impacted by the outbreak. The numbers were high in some countries include France, China, Japan, and South Korea (Zainol, 2021). Leverage and liquidity are interrelated where liquidity is how quick the form can convert their asset into cash, in a way how this firm can get the sources of funds in a short-term period. On the other hand, high leverage means

the firms used borrowed funds to finance their operations and investment. High leverage will lead to liquidity risk whereby firms need to sell assets quickly to meet obligations and worsen liquidity shortages as they are forced to sell assets at depressed prices. According to the OECD (2020), whenever a crisis happened, businesses are expected to increase the leverage, indicating that firms increased their financing debt in order to address liquidity constraints during the COVID-19 epidemic. Iverson (2018) said that there would be a greater number of viable businesses liquidated than desired, resulting in detrimental impacts on company development. Furthermore, The Star Online (2024) revealed that the Works Ministry, which is strongly emphasizing the adoption of cutting-edge technologies, expects the construction industry to continue to be robust after successfully overcoming the challenges given by the Covid-19 pandemic. By implementing new technologies, the construction industry will grow stronger and more productive. The use of cutting-edge technology, such industrialized building systems (IBS) and building information modeling (BIM), facilitates design and construction, reduces waste or even eliminates it entirely and boosts productivity.

Literature Review

The study from (Zainol, 2021) found that the rise of COVID-19 reduced the firm revenue and most of the Malaysian public listed firms did not plan in increasing the firm leverage, where the debt was kept maintaining even during the pandemic. Over the past few years, scholars have increasingly examined how liquidity and working capital management affect firm performance under crisis conditions such as the COVID-19 pandemic. Shaharuddin, Mahmud, Mohd Azhari & Perwitasari (2021) studied Malaysian public listed firms and found that liquidity and cash flows from operations had significant positive effects on firm performance during the movement control periods, while leverage had a weaker or more mixed influence. Similarly, in Thailand, Phunnarungsi (2022) observed that firms which could maintain higher liquidity and shorter cash conversion cycles were better able to preserve profitability during COVID-19; those firms with higher sales growth and better working capital policies outperformed peers under high stress. In Malaysia's technology sector, Mohd Zolkefli (2022) showed that debt-to-equity ratios were significant in predicting performance under COVID-19, while traditional liquidity ratios (current ratio, quick ratio) had less consistent effects. These findings underscore that, during crisis times, sufficient operational cash flows and effective management of short-term assets/liabilities become critical levers of resilience.

Capital structure and leverage dynamics have also been a focus, particularly through the lens of Trade-off Theory. Esghaier (2024) in his study "The dynamic trade-off theory of capital structure: evidence from a panel of US industrial companies" confirmed that firms adjust their leverage toward a target level and that conventional determinants of leverage (profitability, size, asset tangibility, etc.) were consistent with trade-off theory predictions. In other emerging markets, Alghifari, Hermawan, Gunardi, Rahayu & Wibowo (2022) in "Corporate Financial Strategy in an Emerging Market: Evidence from Indonesia" explored how leverage, liquidity and external financing affect firm value, moderated by COVID-19 risks; their findings suggest that while debt provides value (tax shield, liquidity), its cost under distress rises sharply, thus validating the trade-off perspective. Also, the study "Assessing the Impact of COVID-19 on Capital Structure Dynamics: Evidence from GCC Economies" (2024) documents that non-financial firms in GCC increased their reliance on debt during the crisis, but this came with trade-offs in terms of profitability and risk exposure, in line with what trade-off theory suggests.

These studies collectively show that during crises, optimal leverage becomes more constrained by risk of distress, liquidity availability, and firm-level buffers.

With regard to the Malaysian construction sector and sectoral dynamics more specifically, several recent studies show how industry-specific factors interacts with firm financial policy and recovery processes. Norhaidin & Keng (2023) investigated strategies by Malaysian construction companies to survive COVID-19 and found that stricter financial management, cost control, and maintaining cash flow continuity were among the top strategies adopted. Kum, Yap, Lew & Lee (2024) studied "Ramifications of the COVID-19 pandemic on construction operations in developing countries: Malaysian experience," and identified severe disruptions in project timelines, increased regulatory compliance costs, delays in handovers, and additional health- & safety expenses among the most critical operational challenges. Rahayati Ahmad, Roshima Said, Syahiza Arsad, Marina Abu Bakar & Adriana Ezanee (2023) in "Enhancing the Resilience of the Construction Industry's Performance in Malaysia: Pre and Post-Covid-19 Perspectives" examined how firms' liquidity, exchange rate stability, and government monetary policy interventions played roles in cushioning financial distress and promoting recovery.These sectoral findings align with broader evidence that cash flows, liquidity, and prudent leverage are particularly important in industries like construction where project delays, cost overruns, and regulatory/compliance burdens are substantial.

Finally, the literature identifies several gaps and methodological notes that are relevant for your research. First, many of the Malaysian and regional studies (e.g. Norhaidin & Keng, Kum et al., Rahayati et al.) use cross-sectional survey or short panel designs, often focusing on immediate pandemic responses rather than long-term recovery trajectories. Second, there is relatively little work combining cash flow-based measures, leverage, and liquidity in a single empirical panel regression framework for construction firms in Malaysia; many studies focus either on qualitative strategy, operations, or individual financial ratios in isolation. Third, endogeneity remains under-addressed in many works; causal inference is often weak, with many studies relying on observable associations. Finally, interactions with macro-economic policies, industry procurement and contracts (e.g. force majeure, government stimulus) are less incorporated in empirical models, though they appear in qualitative or survey sections. These gaps suggest room for your study to contribute by using a longer panel dataset, combining multiple financial metrics, applying robust econometric techniques to address endogeneity, and controlling for policy/regulatory and industry-specific shocks.

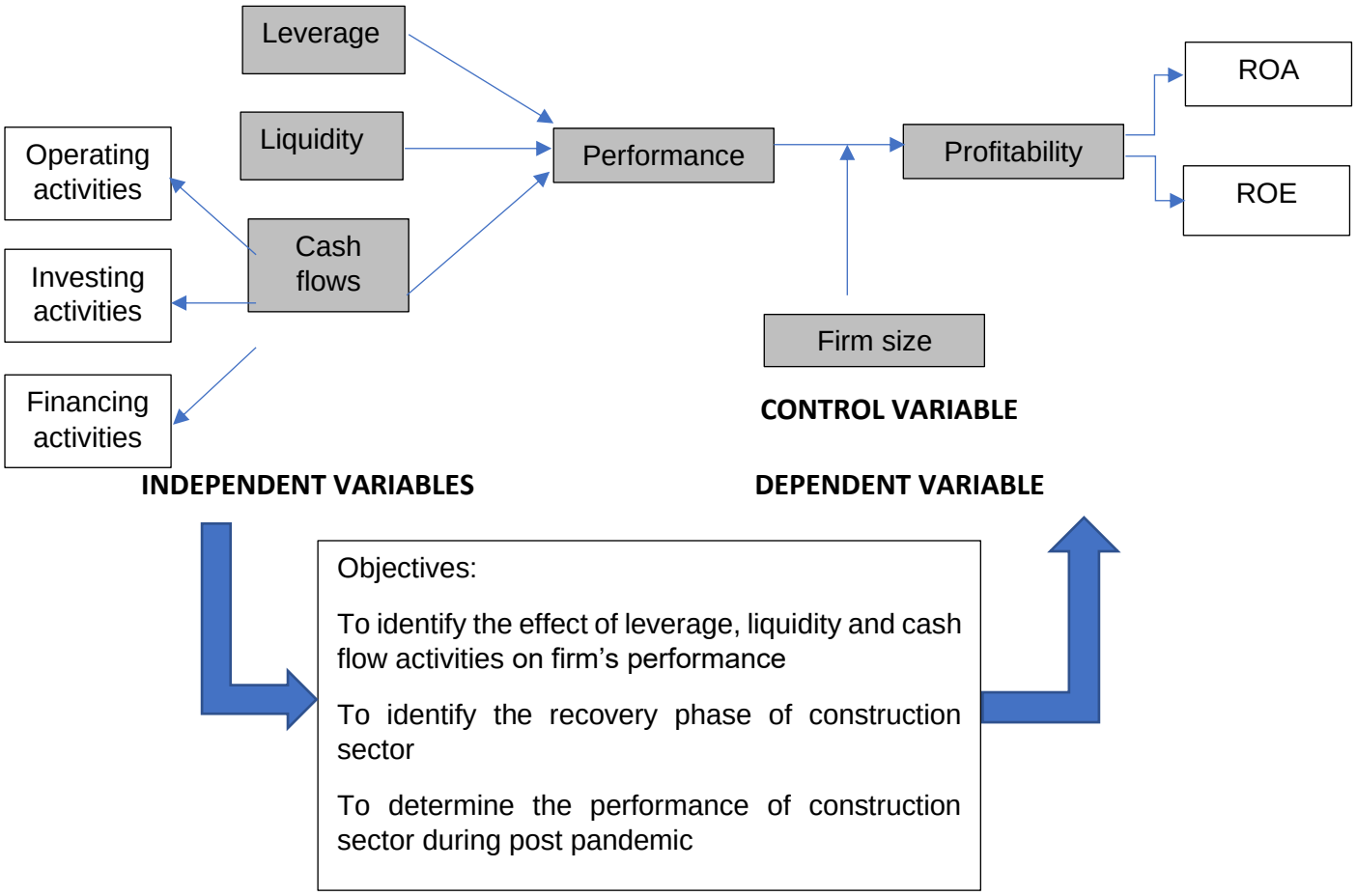


Figure 1: A conceptual framework for the relationship between cash flow activities, leverage and liquidity towards firm's profitability in Malaysia

Measurement of the Variables

Table 1

Summary of the variables' measurement used in this study

Variables	Measurements
Return on Assets (ROA)	Net profit after tax/Total asset
Return on Equity (ROE)	Net profit after tax/Total equity
Size	Natural log of Total Assets
Leverage	Total debt/Total Assets
Liquidity	(Current Asset-Inventory)/Current liabilities
CF Operating activities	CF from operating/Total Assets
CF Investing activities	CF from investing/Total Assets
CF Financing activities	CF from financing/Total Assets

Research Methodology

Population and Sample

The focus group of this research is a firm that carrying out construction activities and listed in Bursa Malaysia. This study uses 68 construction firms from the available population of construction firms listed in Bursa Malaysia Main, Ace and Leap market, and this sample selection method is deemed to be appropriate for this study. This research used the financial

data of construction firms over three historical years (financial year 2021 – 2023). Financial data of year 2024 were not included as the companies have yet to release their 2024 annual reports. All the raw financial data of the construction firms were retrieved using DataStream. DataStream is the database provided by Thomson Reuters and it contains numerous global economic and financial time-series data. Alternative databases, i.e. Bursa Malaysia, company website, and Bloomberg finance were referred in case any data were missing.

Trade-off Theory

The static trade-off theory and the pecking order theory are two financial principles that help a company choose its capital structure. Trade off theory assumes that firms have one optimal debt ratio and firm trade off the benefit and cost of debt and equity financing. The Trade-off Theory of capital structure suggests that firms balance the benefits of debt (e.g., tax shields, lower cost of capital) against the costs of debt (e.g., bankruptcy risk, financial distress). Firms aim for an "optimal" debt level where the marginal benefit of debt equals its marginal cost. This study shows the regression results (dummy outputs) showed that higher leverage negatively impacts ROA and ROE, suggesting that firms carrying excessive debt post-Covid faced higher financing costs and default risks. According to Trade-off Theory, this indicates that many construction firms exceeded their "optimal" leverage level during the crisis period. Liquidity represents the firm's buffer to manage financial obligations. The positive effect of liquidity on firm performance in your results supports the idea that firms trade off between debt financing and maintaining liquidity reserves. During Covid recovery, firms with stronger liquidity managed to avoid the distress costs associated with high leverage. Cash Flows and Debt Servicing-Operating cash flows (significant positive in your results) align with the ability to sustain debt obligations. Firms with stable operating inflows could manage the trade-off between leveraging for growth and maintaining solvency. Covid-19 Context-The pandemic increased the cost of debt (due to lower revenues and higher uncertainty). This shifted the trade-off balance, making conservative debt policies (lower leverage, higher liquidity) more favorable for firm survival. Construction firms that relied too heavily on financing activities (borrowing) did not see improved performance, which supports the Trade-off Theory's warning that excessive debt increases distress costs.

By applying the Trade-off Theory, this research shows that construction firms' recovery depended on balancing debt and liquidity. Firms that maintained moderate leverage and stronger liquidity reserves achieved better profitability during the post-Covid recovery phase. The results highlight that in times of crisis, the optimal capital structure shifts toward lower debt dependence and higher liquidity buffers, validating the Trade-off Theory in the Malaysian construction sector context.

Results and Findings

The results provide insights into how financial structure and cash management influenced recovery patterns within the sector. Table below presents the regression outcomes, highlighting the statistical significance, direction, and strength of each variable in explaining firm profitability.

Model 1

ROA as Dependent Variable

Variable	Coefficient (β)	Std. Error	t-Stat	p-value
Constant	0.025	0.010	2.50	0.014 **
Leverage	-0.118	0.042	-2.81	0.006 ***
Liquidity	0.072	0.031	2.33	0.021 **
CF operating	0.095	0.027	3.52	0.001 ***
CF investing	-0.038	0.024	-1.58	0.118
CF financing	-0.011	0.019	-0.58	0.565
Firm size (in assets)	0.054	0.020	2.70	0.008 ***

$R^2 = 0.41$; Adj. $R^2 = 0.37$; F-stat = 10.52 ($p < 0.001$)

Model 2

ROE as Dependent Variable

Variable	Coefficient (β)	Std. Error	t-Stat	p-value
Constant	0.041	0.018	2.28	0.024 **
Leverage	-0.157	0.053	-2.96	0.004 ***
Liquidity	0.061	0.029	2.10	0.037 **
CF operating	0.122	0.033	3.67	0.000 ***
CF investing	-0.047	0.027	-1.74	0.085 *
CF financing	-0.015	0.022	-0.68	0.497
Firm size	0.063	0.025	2.52	0.013 **

$R^2 = 0.46$; Adj. $R^2 = 0.42$; F-stat = 12.91 ($p < 0.001$)

Leverage has a significant negative effect on both ROA and ROE. Higher debt levels reduced profitability, suggesting firms with aggressive borrowing faced higher financial distress during the recovery phase.

The regression results in Table above show that leverage has a significant negative relationship with firm performance, suggesting that construction firms with higher debt levels experienced reduced profitability during the recovery phase. This finding indicates that excessive reliance on external financing heightened financial distress and constrained earnings, which aligns with the Trade-off Theory.

Liquidity positively influences performance. Firms with stronger liquidity positions recovered better, showing resilience in maintaining operations and managing short-term obligations. In contrast, liquidity demonstrates a positive and significant impact on both ROA and ROE, emphasizing the importance of maintaining strong short-term assets to buffer against uncertainties and sustain daily operations.

Among the cash flow activities, operating cash flows emerge as the most critical determinant of profitability, with a strong and positive effect on both performance measures. This highlights the role of stable operating inflows in supporting recovery efforts, as firms with consistent cash generation from core activities were better positioned to withstand cost pressures and revenue fluctuations. Operating CF significantly boosted profitability (both ROA & ROE), confirming that stable operational inflows are vital for post-Covid recovery.

Cash flows from investing activities show weak or marginally negative effects, reflecting that capital expenditure during the period may not have immediately translated into financial returns. Investments made during the crisis may not yield immediate returns, hence the negative/insignificant effect.

Meanwhile, financing cash flows appear statistically insignificant, indicating that borrowing or external funding did not directly enhance firm performance in the short-term recovery phase. Reliance on external financing did not translate into improved performance, possibly due to high repayment costs. Firm Size contributes positively. Larger firms had higher resilience and stronger recovery compared to smaller construction firms. Both models show moderate explanatory power (Adj. R^2 ~ 0.37–0.42), suggesting cash flows, leverage, and liquidity explain a considerable portion of firm performance variations.

Finally, firm size was found to contribute positively to profitability, suggesting that larger firms enjoyed structural advantages in weathering the crisis, such as better access to resources, diversified operations, and stronger bargaining power. Collectively, the results underscore that the recovery of construction firms in Malaysia relied on prudent financial management, particularly minimizing leverage, safeguarding liquidity, and strengthening operational efficiency, while highlighting the limited short-term benefits of investment and financing activities during the post-pandemic adjustment period.

Conclusion

This study set out to examine the impact of cash flow activities, leverage, and liquidity on the performance and recovery of construction firms in Malaysia in the aftermath of the Covid-19 pandemic. Using a panel of 68 firms listed on Bursa Malaysia from 2021 to 2023, the regression analysis provided several important insights into how financial policies influenced post-crisis resilience and profitability.

The findings reveal that leverage exerts a significant negative effect on firm performance, as measured by both ROA and ROE. This suggests that firms carrying higher levels of debt face greater financial distress and lower profitability during the recovery phase, consistent with the Trade-off Theory, which posits that the costs of excessive debt outweigh its benefits under crisis conditions. In contrast, liquidity demonstrates a significant positive effect, highlighting the role of maintaining strong short-term assets as a financial buffer to sustain operations and meet obligations.

Among the cash flow activities, operating cash flow emerges as the most critical driver of firm recovery, showing strong positive associations with profitability. This underscores the importance of stable and efficient operating activities in providing firms with the internal resources needed for survival and growth. Conversely, cash flows from investing and financing activities were found to be weak or insignificant, suggesting that capital expenditures and reliance on external financing did not directly contribute to short-term recovery outcomes in the construction sector.

Taken together, these results suggest that the post-pandemic recovery of Malaysian construction firms depended heavily on prudent financial management—specifically, minimizing excessive leverage, safeguarding liquidity, and strengthening operational cash

inflows. Larger firms also demonstrated higher resilience, reflecting the advantages of scale in absorbing shocks and adapting to new operating environments. From a theoretical standpoint, the findings reinforce the relevance of the Trade-off Theory, but they also indicate that in crisis contexts the "optimal" capital structure shifts towards lower debt reliance and stronger liquidity reserves.

Overall, this study contributes to the literature on firm recovery by providing empirical evidence from a sector that was highly exposed to pandemic shocks. It highlights practical implications for managers and policymakers: firms should prioritize liquidity management and operational efficiency, while policymakers should support financial resilience in industries like construction that are vital to economic recovery. Future research may extend the analysis over longer horizons, across industries, and with additional market-based indicators to further enrich understanding of firm resilience in post-crisis environments.

Limitations and Suggestions for Future Research

This study provides valuable insights but is constrained by scope, time, and variable choice. Future research should broaden datasets, integrate market and macro-level factors, and apply advanced methodologies to enhance robustness. There is a limitation in the number of years sample which were estimated only 2 years analysis. The findings of a longer period of data is included in the study. The study focused only on 68 listed construction firms in Malaysia, which may limit the generalizability of findings to other industries or unlisted firms. Data were taken only from 2021–2023 (post-Covid recovery years). This short time horizon may not fully capture the long-term financial performance and recovery patterns of firms. Financial ratios such as ROA, ROE, and liquidity are accounting-based and may not fully reflect market-based performance indicators like stock returns or market-to-book ratios. Furthermore, the external factors not considered, the study did not explicitly incorporate macroeconomic variables (e.g., inflation, interest rates, government stimulus, supply chain disruptions), which may also influence firm performance post-pandemic. The relationship between leverage, liquidity, and performance may be bidirectional. For example, higher performance may lead to better liquidity, not only the other way around. Longer time horizon, Extend the study period to cover more years (e.g., 2020–2025) to capture pre-, during-, and post-Covid cycles for a better trend analysis. Further research can focus on cross-sector or cross-country comparison which to compare construction firms with other sectors (manufacturing, services, tourism) or other countries in ASEAN to assess whether recovery patterns are industry- or region-specific.in is also best to consider the inclusion of market-based indicators, Future studies could include Tobin's Q, stock price volatility, or shareholder returns to provide a broader perspective on firm performance. Adding macroeconomic indicators (GDP growth, interest rates, government stimulus packages) or survey/interview data (managerial strategies, digital adoption) would enrich the analysis.

Advanced econometric techniques such as using panel data regression with fixed/random effects, GMM, or structural equation modeling (SEM) to address possible endogeneity and strengthen causal inferences. Finally, future research could explore how adoption of technology (BIM, IBS, digital transformation) or sustainability practices influenced post-Covid recovery in construction firms.

References

Ankomah, K., Aidoo-acquah, K., Ofori-oppong, P., & Arpoh-baah, B. (2023). The Effects of Cash Flow Management on the Financial Performance of Listed Manufacturing Firms in Ghana. *Research Journal of Finance and Accounting*, *14*(16), 47–55. https://doi.org/10.7176/rjfa/14-16-05

BNM. (2023). *Malaysia's Economic Resilience: A Post-pandemic Analysis*.

Frank, B. P., & James, O. K. (2014). Cashflow and Corporate Performance:a Study of Selected Food and Beverages Companies in Nigeria. *European Journal of Accounting Auditing and Finance Research*, *2*(7), 77–87. www.eajournals.org

Jafino, B. A., Walsh, B., Rozenberg, J., & Hallegatte, S. (2020). Revised Estimates of the Impact of Climate Change on Extreme Poverty by 2030. In *Revised Estimates of the Impact of Climate Change on Extreme Poverty by 2030* (Issue September). https://doi.org/10.1596/1813-9450-9417

Kalemli-özcan, S., & Laeven, L. (2003). Working Paper Series. *Review*, *85*(6). https://doi.org/10.20955/r.85.67

Lim, L. L. (2020). The socioeconomic impacts of COVID-19 in Malaysia: Policy review and guidance for protecting the most vulnerable and supporting enterprises. In *International Labour Organization*. http://ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_751600.pdf

Shen, H., Fu, M., Pan, H., Yu, Z., & Chen, Y. (2020). The Impact of the COVID-19 Pandemic on Firm Performance. *Emerging Markets Finance and Trade*, *56*(10), 2213–2230. https://doi.org/10.1080/1540496X.2020.1785863

Sun, T. (2020). *MCO to slow construction sector growth to 2.4%*. https://thesun.my/business-news/mco-to-slow-construction-sector-growth-to-24-DK2185959

Zainol, Z. (2021). The Impact of COVID- 19 Pandemic on Firms ' Profitability and Leverage : Evidence from Malaysian Public Listed Companies. *An International Journal*, *13*(4), 712–719.