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The Effect of Liquidity and Leverage on Company Profitability

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ABSTRACT

Profitability is a central indicator of corporate financial health, yet the effect of liquidity and leverage on it remains debated. This study examines the effect of liquidity and leverage on company profitability using a literature review method. Secondary data were drawn from peer-reviewed journals and academic textbooks, retrieved from scholarly databases, and analyzed qualitatively through data reduction, data display, and conclusion drawing. The synthesis shows that liquidity is mostly negatively associated with profitability, since excess liquid assets earn lower returns than productive investments, although firms facing uncertain cash flows may rationally hold buffers. The effect of leverage is mixed: moderate debt, especially short-term debt, can support profitability through tax benefits and managerial discipline, whereas excessive or long-term debt may erode earnings and increase distress risk. The findings also suggest that liquidity and leverage are interdependent and should be analyzed jointly. Future research should test these propositions empirically using emerging-market.

INTRODUCTION

Profitability is widely regarded as the central indicator of a firm's financial health and managerial effectiveness. It determines whether a company can reward its shareholders, reinvest in growth, and withstand adverse economic conditions over the long term. For investors, creditors, and managers alike, the ability of a firm to generate earnings from its asset base and equity capital is the foundation of valuation and credit decisions (Gitman & Zutter, 2015). Consequently, identifying the financial factors that drive profitability has remained a persistent concern in the corporate finance literature. Among the many candidate determinants, two stand out because they reflect the two basic decisions of financial management: how a firm manages its short-term resources and how it finances its operations. These are liquidity and leverage.

Liquidity refers to a firm's capacity to meet its short-term obligations as they fall due, and it is commonly measured through ratios such as the current ratio and the quick ratio (Kasmir, 2019). Adequate liquidity protects a company from disruptions in operations and from the costs of financial distress. However, the relationship between liquidity and profitability is not straightforward. Holding large amounts of cash and other current assets reduces the risk of insolvency, yet such assets typically earn low returns compared with productive long-term investments. Eljelly (2004) described this as a liquidity–profitability trade-off, in which a firm that raises its liquidity to avoid default may sacrifice returns, whereas a firm that economizes on liquid assets may increase its returns at the price of greater risk. Evidence on the direction of the relationship is mixed. Studies on working capital management have reported that shorter cash conversion cycles are associated with higher profitability (Deloof, 2003; Raheman & Nasr, 2007), implying that excessive investment in liquid assets can be costly. Other research stresses that cash holdings serve precautionary and transaction purposes and can support value creation, particularly when external financing is costly or uncertain (Opler et al., 1999).

Leverage, in turn, represents the extent to which a firm relies on debt to finance its assets. Theoretically, the effect of leverage on profitability has been debated since Modigliani and Miller (1958) showed that, under idealized conditions, capital structure is irrelevant to firm value. Once real-world frictions are introduced, the picture changes. Kraus and Litzenberger (1973) argued that firms balance the tax advantages of debt against the expected costs of bankruptcy, which leads to the trade-off theory of capital structure. Debt can also discipline managers: Jensen (1986) contended that fixed interest obligations reduce the free cash flow available for wasteful spending, and Jensen and Meckling (1976) showed that debt alters the agency conflicts between shareholders and managers. From this perspective, moderate leverage may enhance profitability. In contrast, the pecking order theory suggests that, because of information asymmetry, firms prefer internal funds first, then debt, and issue equity only as a last resort (Myers, 1984; Myers & Majluf, 1984). Under this logic, highly profitable firms borrow less because they can finance themselves internally, which produces a negative association between leverage and profitability (Titman & Wessels, 1988; Rajan & Zingales, 1995).

Empirical studies reflect this theoretical ambiguity. Abor (2005), examining firms listed on the Ghana Stock Exchange, found a significant positive relationship between short-term debt and profitability, but a negative relationship between long-term debt and profitability. Gill, Biger, and Mathur (2011), using data from American firms, reported that profitability was positively associated with both short-term and long-term debt. On the other hand, evidence consistent with the pecking order perspective shows that more profitable firms tend to carry less debt (Fama & French, 2002). Excessive leverage also raises the probability of financial distress, an outcome that has long been linked to deteriorating financial ratios and eventual failure (Altman, 1968). Taken together, the literature indicates that the effect of leverage on profitability depends on the type and level of debt, on the institutional environment, and on the firm's own characteristics.

The interaction between liquidity and leverage adds a further layer of complexity. A firm with high leverage faces fixed repayment obligations, and it therefore needs sufficient liquidity to service its debt without disrupting operations. Conversely, a firm with strong liquidity may be able to use debt more efficiently because creditors perceive it as less risky, and this may lower its borrowing costs. For this reason, analyzing liquidity and leverage together, rather than in isolation, provides a more realistic view of how a firm's financial policy shapes its earnings. Many prior studies, however, have examined these variables separately or have concentrated on working capital management alone, leaving the combined effect of liquidity and leverage on profitability less explored, particularly in emerging markets.

This issue is especially relevant in emerging economies such as Indonesia, where firms listed on the Indonesia Stock Exchange operate in an environment characterized by exchange rate fluctuations, shifting interest rates, and varying access to external financing. In such conditions, management decisions about how much liquidity to hold and how much debt to take on can have a substantial impact on performance. Firms that hold too little liquidity may struggle to meet their obligations when credit conditions tighten, while firms that rely heavily on debt may find their profits eroded by interest burdens when revenues fall. At the same time, firms that are too conservative may forgo opportunities for growth and returns. Understanding where the balance lies is therefore a practical concern for managers, and it is equally important for investors and creditors who rely on financial ratios to assess performance.

Based on these considerations, a research gap can be identified. First, theoretical predictions regarding the effects of liquidity and leverage on profitability are inconsistent, since the trade-off theory, the pecking order theory, and agency theory point in different directions. Second, empirical findings differ across countries, industries, and time periods, which makes it difficult to generalize results from one setting to another. Third, studies that examine liquidity and leverage simultaneously as determinants of profitability remain limited relative to those that examine each factor on its own. Addressing these gaps requires fresh empirical evidence that is grounded in an established theoretical framework and that reflects current market conditions.

Accordingly, this study seeks to examine the effect of liquidity and leverage on company profitability. Liquidity will be proxied by liquidity ratios such as the current ratio, leverage by debt-based ratios such as the debt-to-equity ratio, and profitability by measures such as return on assets or return on equity. The findings are expected to contribute to the literature by clarifying the direction and magnitude of these relationships. They are also expected to offer practical guidance for managers in designing liquidity and capital structure policies, and for investors and creditors in evaluating a firm's financial performance. The research problem addressed in this study can therefore be stated as follows: to what extent do liquidity and leverage, individually and jointly, affect the profitability of companies?

RESEARCH METHODS

This study employs a literature review method, also known as library research, to examine the effect of liquidity and leverage on company profitability. A literature review is a research approach that collects, evaluates, and synthesizes existing scholarly work in order to build a comprehensive understanding of a topic, identify what is already known, and reveal where knowledge is still inconsistent or incomplete (Snyder, 2019). In the Indonesian research tradition, this approach is often described as *penelitian kepustakaan*, in which the researcher's main data are written sources rather than data gathered directly from respondents (Zed, 2008). This method is considered appropriate here because the relationship among liquidity, leverage, and profitability has been studied extensively under different theoretical lenses and in different markets. A structured synthesis of that body of work can clarify the direction of the relationships and explain why empirical findings differ (Webster & Watson, 2002).

The data used in this study are secondary data in the form of peer-reviewed journal articles, textbooks, and other credible academic publications on liquidity, leverage, capital structure, working capital management, and firm profitability. The sources were searched through scholarly databases and academic search engines such as Scopus, ScienceDirect, JSTOR, Emerald Insight, and Google Scholar, using keywords such as "liquidity," "leverage," "capital structure," "profitability," "return on assets," and "return on equity." To keep the review focused and the evidence reliable, the sources were selected using explicit criteria, namely relevance to the research topic, publication in reputable journals or by recognized publishers, and the presence of a clear theoretical or empirical contribution. Foundational works were retained alongside more recent studies so that the theoretical development of the field could be traced. This transparent, criteria-based selection follows the principles of systematic and evidence-informed reviews (Tranfield et al., 2003; Hart, 1998).

Data collection was carried out through documentation, in which each selected source was read, recorded, and organized according to its research objective, theoretical framework, variables and measurements, methodology, and main findings. Documents were treated as an analytical resource whose content must be examined, interpreted, and compared in order to produce meaningful knowledge (Bowen, 2009). To ensure the quality of the data, the researcher cross-checked arguments and findings across multiple sources and gave priority to original works over secondary summaries. The sources were also grouped according to the main constructs of the study so that the discussion could move systematically from liquidity, to leverage, and then to their combined relationship with profitability.

The analysis uses a qualitative, descriptive-analytical technique consisting of three interconnected steps: data reduction, data display, and conclusion drawing (Miles et al., 2014). First, information from the sources was reduced by retaining only the content relevant to the research question. Second, the reduced data were displayed in organized themes, such as the liquidity–profitability trade-off, the trade-off and pecking order explanations of leverage, and differences in findings across countries and industries, following the logic of thematic analysis (Braun & Clarke, 2006). Third, the themes were compared and synthesized to draw conclusions

about the nature of the relationships and to identify the gaps that remain, which are consistent with the general principles of qualitative research design (Creswell, 2014). The outcome of this process serves as the basis for the discussion and conclusions of the study.

RESULTS AND DISCUSSION

Results

Because this study uses a literature review method, the results are presented as a synthesis of the findings reported in the reviewed sources rather than as new statistical estimates. The synthesis was organized around the three themes identified in the analysis stage: the relationship between liquidity and profitability, the relationship between leverage and profitability, and the joint role of the two variables.

Liquidity and profitability. The reviewed studies most often report a negative relationship between liquidity and profitability. Eljelly (2004) found that, among Saudi firms, a higher current ratio was significantly associated with lower profitability, which supports the idea of a liquidity–profitability trade-off. Studies on working capital management point in the same direction. Deloof (2003) found that Belgian firms with a longer cash conversion cycle, and with longer periods of holding inventory and collecting receivables, tended to have lower gross operating income. Raheman and Nasr (2007) reached a similar conclusion for Pakistani firms, reporting that a shorter cash conversion cycle and a lower current ratio were associated with higher profitability. In contrast, Opler et al. (1999) showed that holding cash is not simply a drag on performance. Firms with strong growth opportunities and riskier cash flows hold more cash, while firms with easy access to capital markets hold less, which suggests that liquidity serves a precautionary purpose that is rational in certain conditions.

Leverage and profitability. The evidence on leverage is more divided, and it depends on the type of debt. Abor (2005) reported that short-term debt and total debt were positively related to the profitability of Ghanaian listed firms, whereas long-term debt was negatively related. Gill et al. (2011) found positive associations between profitability and both short-term and long-term debt among American firms. On the other hand, studies that treat profitability as a determinant of capital structure report the opposite sign. Rajan and Zingales (1995) found that, across a number of industrialized countries, more profitable firms tended to be less leveraged, and Fama and French (2002) reported that profitable firms have lower leverage, a pattern consistent with the pecking order theory. In addition, Altman (1968) demonstrated that financial ratios, including those reflecting profitability and leverage, are informative in predicting corporate failure, which indicates that a heavy debt burden can become a threat to firm survival.

Joint role of liquidity and leverage. No single reviewed study provides a definitive answer on the combined effect of the two variables, which confirms the research gap raised in the background. Nevertheless, several studies include liquidity and leverage in the same model. Raheman and Nasr (2007), for example, found a negative relationship between the debt ratio and profitability together with a negative relationship between the current ratio and profitability.

This suggests that firms that rely less on both liquid buffers and external debt can achieve higher returns, although the result is specific to the sample studied. Table 1 summarizes the main patterns found in the literature.

Theme	Main finding in the literature	Selected sources
Liquidity	Mostly negative association with profitability; cash may still serve a precautionary role	Eljelly (2004); Deloof (2003); Raheman & Nasr (2007); Opler et al. (1999)
Leverage (as a driver of profitability)	Mixed; short-term debt tends to be positive, long-term debt can be negative	Abor (2005); Gill et al. (2011)
Leverage (as an outcome of profitability)	More profitable firms tend to borrow less	Rajan & Zingales (1995); Fama & French (2002)
Financial distress	High leverage and weak ratios raise failure risk	Altman (1968)

Table 1. Synthesis of findings from the reviewed literature.

Discussion

The first notable pattern is that excess liquidity appears to carry an opportunity cost. The negative association reported by Eljelly (2004) and Raheman and Nasr (2007) is consistent with the view that current assets such as cash, receivables, and inventory generate lower returns than productive investments, so that resources tied up in them reduce the return earned on total assets. At the same time, the findings of Opler et al. (1999) caution against concluding that lower liquidity is always better. The optimal level of liquidity differs across firms, since firms with volatile cash flows or limited access to financing have a stronger reason to hold buffers. For this reason, the liquidity–profitability relationship is best understood as a balance that must be managed rather than a rule that favors minimal liquidity. Maintaining enough liquidity to avoid distress while avoiding idle resources is the core managerial challenge highlighted by the literature.

The second pattern concerns the contradictory signs found for leverage, which can be reconciled by looking at the underlying theories and at the direction of causality. The positive results reported by Abor (2005) and Gill et al. (2011) fit the trade-off and agency explanations. Debt offers tax advantages, and, as Jensen (1986) argued, the obligation to pay interest limits the free cash flow available to managers and thereby encourages efficiency. These benefits hold as long as the expected costs of financial distress remain manageable (Kraus & Litzenberger, 1973). The negative results, however, align with the pecking order theory of Myers (1984) and Myers and Majluf (1984), in which profitable firms prefer to finance themselves internally and therefore carry less debt. Part of the divergence may therefore stem from the fact that some studies measure the effect of leverage on profitability, while others observe how profitability

shapes leverage. The difference between short-term and long-term debt reported by Abor (2005) further suggests that the maturity structure matters. Short-term debt is often cheaper and linked to operating activities, whereas long-term debt entails fixed commitments that can weigh on earnings when revenues are weak.

The third point is that liquidity and leverage should be analyzed together. A firm with high leverage must generate or hold enough liquid resources to meet its repayment schedule, and the risk of failing to do so is exactly what the distress literature emphasizes (Altman, 1968). Conversely, firms with comfortable liquidity may be perceived as safer borrowers and may use debt on better terms. This interdependence implies that the effect of leverage on profitability may differ depending on a firm's liquidity position, and that the effect of liquidity may differ depending on the level of debt. Studies that omit one of the two variables risk attributing to one factor an effect that actually belongs to the other, which may be one reason for the inconsistent results across the literature.

Finally, the differences across countries and samples indicate that context matters. The reviewed studies were conducted in developed and developing markets with different financial systems, tax regimes, and access to credit, and their conclusions should not be applied mechanically to other settings. For emerging markets such as Indonesia, conditions like interest rate movements, exchange rate volatility, and uneven access to external financing may amplify both the benefits of well-managed leverage and the dangers of excessive debt. Based on this synthesis, three propositions can be offered for later empirical testing: (1) liquidity tends to have a negative effect on profitability beyond the level required for operating needs; (2) leverage has a conditional effect on profitability that depends on the type and amount of debt; and (3) the effect of leverage on profitability is influenced by the firm's liquidity position. These propositions provide a direction for future quantitative research using firm-level data, with profitability measured by return on assets or return on equity.

This review has limitations. It relies on a selected set of sources, so it does not claim to cover all the relevant literature. It also compares studies that differ in their measures, periods, and samples, which limits how directly their results can be compared. Even so, the synthesis shows a consistent need for research that examines liquidity and leverage jointly in the same context.

CONCLUSION AND RECOMMENDATIONS

This study set out to examine the effect of liquidity and leverage on company profitability through a literature review. The synthesis of previous research shows that the relationship between liquidity and profitability is predominantly negative, because liquid assets such as cash, receivables, and inventory generate lower returns than productive investments, so holding more of them than operations require tends to lower profitability. However, this does not mean that minimal liquidity is always optimal. Firms facing volatile cash flows or limited access to external financing have good reason to hold liquidity buffers, so the appropriate level of liquidity depends on the firm's conditions. The relationship between leverage and

profitability is more mixed. Debt can improve profitability when it is moderate and well matched to the firm's needs, as suggested by the trade-off and agency perspectives, but it can also weigh on earnings and raise the risk of financial distress when it is excessive or long-term in nature. Part of the inconsistency in the literature comes from differences between the types of debt examined, and from whether leverage is treated as a driver or as an outcome of profitability, as the pecking order theory suggests.

Overall, the findings indicate that liquidity and leverage are interdependent and should be assessed together rather than separately, since a firm's debt burden determines how much liquidity it needs, and its liquidity position influences how safely and efficiently it can use debt. Differences across countries, industries, and sample periods also show that the results cannot be generalized mechanically, which is particularly relevant for emerging markets such as Indonesia. For managers, the implication is to balance liquidity and debt deliberately, avoiding both idle resources and excessive borrowing. For investors and creditors, it is to evaluate these two ratios jointly when judging performance. For future research, it is recommended to test the propositions developed in this study empirically, using firm-level data from listed companies, a combined model of liquidity and leverage, and profitability measures such as return on assets and return on equity, possibly with firm size and industry as control variables.

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