# THE IMPACT OF LIQUIDITY AND DIGITAL TRANSFORMATION ON THE BANK PERFORMANCE: BOARD OF COMMISSIONERS AND DIRECTORS' TURNOVER MODERATOR

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#### Abstract:

**Background:** Many banks are not achieving their full profit potential due to suboptimal management of their assets and capital.

**Purpose:** This study seeks to investigate how liquidity and digital transformation (the independent variables) influence profitability (the dependent variable), with the frequency of changes in commissioners and directors acting as a moderating factor.

**Design/methodology/approach:** The research analyzed 47 banks listed on the Indonesia Stock Exchange (IDX) from 2012 to 2022. These banks were selected through purposive sampling from the IDX and Financial Services Authority (FSA) websites. Pure moderation, Moderated Regression Analysis (MRA), and subgroup analysis were applied.

**Findings/Result:** The study found that both liquidity and digital transformation positively impact profitability. Furthermore, changes in the leadership, specifically commissioners and directors, significantly influence this relationship.

**Conclusion:** Liquidity and digital transformation plays a pivotal role in driving bank profitability. Additionally, the commissioners and directors turnover was found to moderate this relationship, indicating that leadership stability may enhance the benefits of these factors. This study contributes to the existing literature by providing empirical evidence from Indonesian banks, offering insights into how these variables interact to influence financial performance.

**Originality/value (State of the art):** This study explores how banks listed on the IDX can boost their profitability by optimizing liquidity and applying digital transformation, considering the influence of leadership changes at the commissioner and director levels.

Keywords: liquidity, digital transformation, bank profitability, commissioners turnover, director turnover

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# INTRODUCTION

Banking activities significantly shape all facets of a country's economy. This influence manifests in managing the monetary system, facilitating payments, and ensuring financial system stability (Amri & Nuraha, 2021). Effective execution of these pivotal roles hinges upon the bank's robust financial performance, which mirrors the attainment of its objectives, vision, and mission.

Profitability serves as a pivotal gauge for assessing the financial performance of all companies, including banks (Soesetio et al. 2022). It signifies the company's capacity to generate funds for sustaining business operations, thereby contributing to the enhancement of its overall value (Ummah & Yuliana, 2023). Among the five approaches to profitability theory, efficiency stands out, delineated by the adept utilization of assets to yield profits, typically quantified by Return on Assets (ROA). The optimal ROA threshold, as per Bank Indonesia Circular Letter Number 13/24/DPNP/2015, is 1.5% (Wicaksono & Debora, 2020). Figure 1 illustrates the decline in the average profitability of banks listed on the IDX from 2012 to 2022, indicating a failure to fully utilize assets and capital to generate profits.

Liquidity becomes key factor supporting the continuity of bank operations. It not only signifies the bank's capability to meet short-term obligations but also serves as the life force of its operations by facilitating deposit withdrawals and disbursing customer credit (Notoatmojo, 2018). However, excessive liquidity can hamper profitability by constraining customer transactions and fund withdrawals, while insufficient liquidity poses risks to solvency. Thus, every bank must strive to strike a balance between liquidity and profitability to bolster profits without compromising liquidity reserves (Ferli et al. 2022). This study uses two key measures of liquidity: the Loan-to-Deposit Ratio (LDR), which compares the amount of credit given out to the public's deposits, and the Current Ratio (CR), which shows the bank's current assets against its short-term obligations.

The use of these two liquidity measures is very important because they can interact with each other. For example, a very high LDR can cause a reduction in the value of current assets, thereby reducing the CR. Several previous studies show mixed results regarding the impact of LDR and CR on bank profitability. Hermuningsih et al. (2022); Pratama et al. (2021) found a positive relationship between LDR and profitability, while Bernardin (2016); Husniar (2022) concludes that LDR can reduce profitability. Rianty & Noviarni (2022) found a positive relationship between CR and profitability, but Ramadhani et al. (2021) did not find a significant relationship between the two. These inconsistent findings highlight the need for further analysis of the two liquidity ratios.

Digital transformation has become another important factor for bank success. According to the Resource-Based View (RBV) theory, companies will gain a competitive advantage if they can manage their resources effectively, thereby improving their performance (Dasuki, 2021; Erzha et al. 2019). The digital transformation process has a significant impact on the financial industry, such as changes in financial services. This change can be felt directly by consumers who previously had to go to the bank to carry out financial transactions, and now only need a cellphone and the internet to carry out various financial transactions. This will have a positive impact on bank operations and increase their operating profits.

Baihaqy & Subriadi (2023) describe digital transformation as a cultural shift where companies use information, communication, and connectivity technologies to stay competitive and adapt to the digital age. This transformation requires fundamental changes in business operations, embracing new information technologies (Oliveira et al. 2023). Digital transformation's impact on economic growth is profound, as it integrates into almost every aspect of modern life, adding significant value to companies. Shabri (2022) points out that the financial industry, when adopting digital transformation, faces fewer financial crises. Studies by Abubakar & Handayani (2022) and Kurniawan et al. (2021) confirm the positive impact of digital transformation on financial performance. However, Dewi & Octrina (2022); Guo et al. (2023) argue that digital transformation can hurt financial performance by increasing operational costs and management expenses.

With the trend of declining bank profitability and ongoing debates in previous research, there is a strong need for further investigation. This study takes a novel approach by considering leadership changes at the commissioner and director levels over an 11-year period, aiming to improve performance. Additionally, by using two liquidity measures, LDR and CR, it assesses the consistency of liquidity's impact on profitability—a critical aspect for banks. Through this comprehensive approach, the study aims to explain how liquidity policies, digital transformation, and leadership changes affect bank performance. Ultimately, the findings are expected to provide valuable insights for evaluating bank performance.

# **METHODS**

This study uses a causality method that aims to measure the influence of independent variables on dependent variables. The independent variables include liquidity, digital transformation, and changes at the board of commissioners and directors level. The dependent variable is bank performance. The measurement of variables is described in more detail in Table 1. This study utilizes secondary data from the financial reports of 47 banks from 2012 to 2022.

The population in this study is all banks listed on the Indonesia Stock Exchange (IDX) during the period 2012 to 2022. This study used a sample of 47 banks selected through purposive sampling based on the criterion: 1) banks provided complete financial reports, 2) Banks have complete data related to the variables in this study.

This study employs a moderated quantitative research approach. Hypothesis testing is conducted through

panel data regression analysis. Consequently, selecting an appropriate panel data regression estimation model is crucial. Commonly utilized models include the Common Effect (CE) model, Fixed Effect (FE) model, and Random Effect (RE) model. Soesetio et al. (2021) assert that the Chow and Hausman tests are conducted to identify the optimal model. Specifically, if the p-value of the Chow test exceeds 0.05 (>0.05), the Common Effect (CE) Model is favored, and vice versa. Similarly, if the p-value of the Hausman test surpasses 0.05 (>0.05), the Random Effect (RE) Model is preferred, and vice versa. Furthermore, to examine the moderating effect of turnover at the top management level, researchers employ various techniques, including pure moderator analysis, moderated regression analysis (MRA), and sub-group methods.

Research by Soesetio et al. (2022) indicates that the liquidity ratio in banks is represented by Loanto-Deposit Ratio (LDR), which illustrates liquidity conditions and the efficacy of credit distribution from third-party funds. A higher LDR corresponds to increased credit disbursal, consequently enhancing profitability through accrued credit interest. In essence, LDR and profitability exhibit a direct relationship. Bank Indonesia Regulation No.18/14/PBI2016, amending Bank Indonesia Regulation No.15/15/ PBI/2013 on Bank Minimum Reserve Obligations for Rupiah Banks and foreign exchange at conventional banks, establishes the standard LDR range as 78–92%. This ratio must be upheld to ensure bank stability.

Table 1. Operational definition of variables

| Variables                 | Proxy                 | Symbol | Measurement  |
|---------------------------|-----------------------|--------|--|
| Firm Performance          | Return on Asset       | ROA    | (Earning after tax)/(Total asset) x100%  |
| Firm Performance          | Return on Equity      | ROE    | (Earning after tax)/(Total equity) x100%   |
| Liquidity                 | Loan to Deposit Ratio | LDR    | (Credit distributed)/(Amount of Third Party Funds) x100%   |
| Liquidity                 | Current Ratio         | CR     | (Current asset)/(Current liability) x100%  |
| Digital<br>Transformation | Dummy Variable        | DTN    | Denoted as 1 when the bank initiates, develops, replaces, or innovates systems or digital transformation features within the current year, and 0 otherwise |
| Commissioner<br>Turnover  | Dummy Variable        | COMT   | A value of 1 is assigned when there is an annual change in commissioners, and 0 otherwise  |
| Director Turnover         | Dummy Variable        | DIRT   | A value of 1 is assigned when there is an annual change in directors, and 0 otherwise  |

Additionally, another proxy for banking liquidity is current ratio (CR), representing the ratio between current assets and current liabilities. A higher CR indicates better liquidity, signifying the bank's ability to meet short-term obligations with current assets. This fosters creditor confidence in retaining funds within the bank, consequently bolstering current assets (Ismanandar, 2016). Research conducted by Qurotulaeni & Dailibas (2022) indicates that LDR influences profitability based on the bank's liquidity management capabilities. These findings align with those of Hermuningsih et al. (2022) and Pratama et al. (2021), who found a positive and significant correlation between liquidity and profitability. Similarly, research by Rianty & Noviarni (2022) concludes that CR positively and significantly impacts profitability.

H1a:Loan-to-deposit ratio positively affects profitability.

## H1b: Current ratio positively affects profitability.

Digital transformation (DTN) offers numerous benefits across various industrial sectors, including banking. DTN facilitates the transition from traditional practices to modern, technology-driven processes, enhancing efficiency in operations and services. This efficiency leads to cost reductions, thereby increasing profitability (Shabri, 2022). Research by Shanti et al. (2022) corroborates that implementing digital transformation can enhance bank performance, particularly in terms of profitability. Similarly, Maharani & Daljono (2023) found a significant positive impact of digital transformation on financial performance, including profitability ratios, resulting in overall financial performance improvement.

# H2: Digital transformation positively affects profitability.

The board of commissioners, as appointed, oversees and advises the directors in company management (Susmanto et al. 2021). Their supervisory role encompasses reviewing annual reports and conducting financial audits, ensuring accountability for their duties to the company. Banks with frequent changes in their board of commissioners can better supervise management decisions, especially regarding digital transformation initiatives. This ensures alignment with strategic objectives and effective implementation for improved profitability. Effective board oversight typically correlates with enhanced company performance, reflected in increased profitability. However, different commissioners may have varied

approaches, leading to different impacts on profitability. Research by Syahputri & Saragih (2024) corroborates that changes in the commissioner board can enhance bank performance.

## H3: Commissioner turnover strenghten the impact of digital transformation on profitability

The board of directors, with guidance from the board of commissioners, plays a crucial role in leading the company towards its goals. They are responsible for creating strategic policies and overseeing the company's operations and overall management. The board's work is essential to making sure the company meets its objectives effectively and efficiently. Given these important responsibilities, the makeup of the board of directors has a major impact on the company's profitability. However, changes in the board can affect profitability due to differences in individual performance. Riyandika & Saad (2020) found a significant positive influence of the board of directors on bank profitability. This finding is supported by Ranu et al. (2017), who also emphasized the positive effect of the board of directors on bank profitability.

# H4: Director turnover strenghten the impact of digital transformation on profitability

The conceptual framework of this study includes two independent variables, such as liquidity and digital transformation, also two moderator variables, such as commissioner and director turnover. The Dependent variable is firm performance in bank listed on IDX from 2012 to 2022. From the previous problem formulation, the conceptual frameworks are shown in Figure 2.

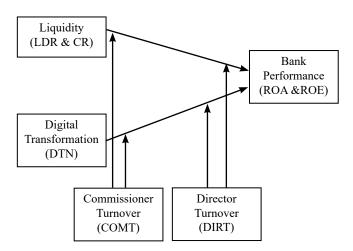


Figure 2. Conceptual framework

## RESULTS

#### **Descriptive Statisctics**

According to Table 2, the average value of the ROA variable stands at 0.015, ranging from a minimum of -0.024 at Bank QNB Indonesia in 2022 to a maximum of 0.055 at Bank Aladin Syariah in 2017. This indicates that the ROA status of the sample is healthy, meeting the threshold of 1.5% as set by Bank Indonesia (2004). Meanwhile, the average value of the ROE variable, is 0.080. The range spans from a minimum of -0.608 at the Banten Regional Development Bank (BPD) in 2019 to a maximum of 0.387 at Bank Rakyat Indonesia in 2012. This indicates that the ROE status of the sample is relatively healthy, falling within the range of 5% to 12.5% set by Bank Indonesia (2004).

The LDR variable ranges from a minimum of 0.124 to a maximum of 6.308, with an average value of 0.911. Regarding the CR variable, the minimum and maximum values are 0.020 and 12.490, respectively, with an average value of 1.290. The digital transformation variable (DTN) exhibits an average value of 0.016. The minimum value is assigned when a bank does not innovate in implementing digital transformation, and vice versa. In this context, the DTN variable primarily focuses on the adoption of internet banking and mobile banking (m-banking). Commissioner turnover (COMT) has an average value of 0.297, accompanied by a larger standard deviation of 0.457. Similarly, director turnover (DIRT) possesses an average value of 0.287, with a standard deviation of 0.453. The minimum value is assigned when there is no change in commissioners or directors, and vice versa.

#### **Hypotheses Testing Result**

Table 3 reveals a positive impact of liquidity on profitability, with a significance level of  $\leq 0.05$ ,

Table 2. Descriptive statistics

supporting the acceptance of H1a and H1b. Furthermore, the DTN variable demonstrates a significance level of  $\leq 0.01$ , affirming its positive and significant influence on profitability. Consequently, H2 is also accepted. Meanwhile, Table 4 illustrates the influence of the frequency of commissioner replacement (COMT) and director replacement (DIRT) as a moderator variable, as evidenced by the moderation test employing the pure moderator method. This table presents the moderating effect of commissioner and director replacement on the relationship between digital transformation (DTN) and profitability (ROA and ROE). Analysis results indicate that the replacement of commissioners and directors effectively moderates (strengthens) the impact of DTN on profitability.

Moderated regression analysis (MRA) method was employed, as shown in Table 5 and 6. The findings reveal that changes in commissioners and directors also exert a positive and significant influence on the relationship between Digital Transformation and profitability. Consequently, these results affirm that alterations at the top management level can enhance the relationship between the influence of Digital Transformation (DTN) and profitability, further corroborating the findings obtained through the previous pure moderator method.

Finally, moderation analysis utilizing the subgroup method, as presented in Table 7, reveals that DTN significantly influences profitability in companies that undergo board member changes, encompassing both commissioners and directors. This suggests that companies implementing more changes tend to prioritize and actively engage in digital transformation initiatives to enhance profitability. Overall, the results of the Chow test, or F-test with separate samples, indicating values of 8.794, 16.415, 9.309, and 12.610 > F-table 3.86, demonstrate that commissioners and directors turnover moderates the relationship between DTN and profitability.

| Variable | Obs | Mean   | Std. dev. | Min     | Max     |
|----------|-----|--------|-----------|---------|---------|
| ROA      | 459 | 0.0146 | 0.0134    | -0.0242 | 0.0550  |
| ROE      | 459 | 0.0803 | 0.0894    | -0.6079 | 0.3866  |
| LDR      | 459 | 0.9107 | 0.4397    | 0.1235  | 6.3082  |
| CR       | 459 | 1.2914 | 1.1635    | 0.0198  | 12.4891 |
| DTN      | 459 | 0.1656 | 0.3721    | 0       | 1       |
| COMT     | 458 | 0.2969 | 0.4574    | 0       | 1       |
| DIRT     | 450 | 0.2867 | 0.4527    | 0       | 1       |

| VARIABLES - | R        | DA       | ROE      |          |  |  |
|-------------|----------|----------|----------|----------|--|--|
| VARIABLES - | RE       | RE       | FE       | FE       |  |  |
| LDR         | -0.001   |          | 0.000**  |          |  |  |
|             | (0.002)  |          | (0.000)  |          |  |  |
| CR          |          | 0.001**  | 0.001**  |          |  |  |
|             |          | (0.000)  |          | (0.002)  |  |  |
| DTN         | 0.005*** | 0.004*** | 0.032*** | 0.032*** |  |  |
|             | (0.001)  | (0.001)  | (0.008)  | (0.008)  |  |  |
| Constant    | 0.014*** | 0.012*** | 0.076*** | 0.076*** |  |  |
|             | (0.002)  | (0.002)  | (0.001)  | (0.003)  |  |  |
| R-squared   |          |          | 0.048    | 0.047    |  |  |

## Table 3. Regression output

Note: Robust standard errors are shown in parentheses. \*, \*\*, and \*\*\* represent 10%, 5%, and 1% levels respectively

#### Table 4. Pure moderated

| VADIADIEC | ROA      | ROE      | ROA      | ROE      | ROA      | ROE      | ROA      | ROE      |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|
| VARIABLES | RE       | FE       | FE       | FE       | RE       | FE       | FE       | FE       |
| LDR       | -0.001   | 0.000    | -0.001   | -0.000   |          |          |          |          |
|           | (0.002)  | (0.000)  | (0.002)  | (0.000)  |          |          |          |          |
| CR        |          |          |          |          | 0.001*** | -0.001   | 0.001*** | -0.001   |
|           |          |          |          |          | (0.000)  | (0.002)  | (0.000)  | (0.002)  |
| DTN       | 0.002    | 0.007    | 0.002    | 0.012    | 0.001    | 0.007    | 0.001    | 0.012    |
|           | (0.002)  | (0.011)  | (0.002)  | (0.012)  | (0.002)  | (0.011)  | (0.002)  | (0.012)  |
| DTNxCOMT  | 0.006*** | 0.051*** |          |          | 0.006*** | 0.047*** |          |          |
|           | (0.002)  | (0.012)  |          |          | (0.002)  | (0.013)  |          |          |
| DTNxDIRT  |          |          | 0.005**  | 0.039*** |          |          | 0.006*** | 0.039*** |
|           |          |          | (0.002)  | (0.014)  |          |          | (0.002)  | (0.014)  |
| Constant  | 0.014*** | 0.076*** | 0.014*** | 0.075*** | 0.012*** | 0.077*** | 0.012*** | 0.076*** |
|           | (0.002)  | (0.001)  | (0.002)  | (0.001)  | (0.002)  | (0.002)  | (0.000)  | (0.003)  |
| R-squared |          | 0.096    | 0.076    | 0.081    |          | 0.086    | 0.093    | 0.082    |

Note: Robust standard errors are shown in parentheses. \*, \*\*, and \*\*\* represent 10%, 5%, and 1% levels respectively

## Table 5. Moderated Regression Analysis using LDR

| VARIABLES | ROA      | ROE      | ROA      | ROE      | ROA      | ROE      | ROA       | ROE      |
|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| VARIABLES | RE       | FE       | FE       | FE       | RE       | FE       | FE        | FE       |
| LDR       | -0.000   | -0.000   | -0.001   | -0.001   | 0.000**  | -0.000   | -0.000*** | -0.000** |
|           | (0.002)  | (0.002)  | (0.002)  | (0.002)  | (0.000)  | (0.000)  | (0.000)   | (0.000)  |
| DTN       | 0.005*** | 0.002    | 0.006*** | 0.002    | 0.030*** | 0.007    | 0.042***  | 0.009    |
|           | (0.001)  | (0.002)  | (0.001)  | (0.002)  | (0.008)  | (0.012)  | (0.009)   | (0.013)  |
| COMT      | 0.002*   | 0.001    |          |          | 0.014**  | 0.003    |           |          |
|           | (0.001)  | (0.001)  |          |          | (0.007)  | (0.009)  |           |          |
| DTNxCOMT  |          | 0.005**  |          |          |          | 0.049*** |           |          |
|           |          | (0.002)  |          |          |          | (0.016)  |           |          |
| DIRT      |          |          | -0.001   | -0.002   |          |          | -0.001    | -0.013   |
|           |          |          | (0.001)  | (0.001)  |          |          | (0.007)   | (0.008)  |
| DTNxDIRT  |          |          |          | 0.007*** |          |          |           | 0.052*** |
|           |          |          |          | (0.002)  |          |          |           | (0.018)  |
| Constant  | 0.014*** | 0.014*** | 0.014*** | 0.015*** | 0.071*** | 0.074*** | 0.072***  | 0.075*** |
|           | (0.002)  | (0.003)  | (0.002)  | (0.002)  | (0.002)  | (0.010)  | (0.010)   | (0.010)  |
| R-squared |          |          |          | 0.086    | 0.070    |          |           |          |

| VADIADIES |          | R        | DA       |          | ROE      |          |          |          |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|
| VARIABLES | RE       | RE       | RE       | RE       | FE       | RE       | RE       | RE       |
| CR        | 0.001*** | 0.001*** | 0.001*** | 0.001*** | -0.001   | -0.001   | -0.002   | -0.001   |
|           | (0.000)  | (0.000)  | (0.000)  | (0.000)  | (0.002)  | (0.002)  | (0.002)  | (0.002)  |
| DTN       | 0.004*** | 0.001    | 0.005*** | 0.001    | 0.030*** | 0.008    | 0.043*** | 0.010    |
|           | (0.001)  | (0.002)  | (0.001)  | (0.002)  | (0.008)  | (0.012)  | (0.009)  | (0.013)  |
| COMT      | 0.002    | 0.000    |          |          | 0.015**  | 0.004    |          |          |
|           | (0.001)  | (0.001)  |          |          | (0.007)  | (0.009)  |          |          |
| DTNxCOMT  |          | 0.006*** |          |          |          | 0.044**  |          |          |
|           |          | (0.002)  |          |          |          | (0.018)  |          |          |
| DIRT      |          |          | -0.000   | -0.002   |          |          | -0.001   | -0.012   |
|           |          |          | (0.001)  | (0.001)  |          |          | (0.007)  | (0.008)  |
| DTNxDIRT  |          |          |          | 0.008*** |          |          |          | 0.052*** |
|           |          |          |          | (0.002)  |          |          |          | (0.018)  |
| Constant  | 0.012*** | 0.012*** | 0.012*** | 0.013*** | 0.073*** | 0.076*** | 0.075*** | 0.077*** |
|           | (0.002)  | (0.002)  | (0.002)  | (0.002)  | (0.003)  | (0.009)  | (0.009)  | (0.009)  |
| R-squared |          |          |          |          | 0.070    |          |          |          |

Table 6. Moderated Regression Analysis using CR

Note: Robust standard errors are shown in parentheses. \*, \*\*, and \*\*\* represent 10%, 5%, and 1% levels respectively

| VARIABLES    | (1) RE   | (2) RE   | (1) RE   | (2) RE   | (3) RE   | (4) RE   | (3) RE   | (4) RE   |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|
| VARIADLES    | ROA      |          | ROE      |          | ROA      |          | ROE      |          |
| DTN          | 0.008*** | 0.001    | 0.056*** | 0.008    | 0.009*** | 0.003    | 0.058*** | 0.010    |
|              | (0.001)  | (0.002)  | (0.012)  | (0.012)  | (0.002)  | (0.002)  | (0.013)  | (0.013)  |
| Constant     | 0.014*** | 0.014*** | 0.076*** | 0.074*** | 0.012*** | 0.014*** | 0.070*** | 0.075*** |
|              | (0.002)  | (0.002)  | (0.010)  | (0.001)  | (0.002)  | (0.002)  | (0.011)  | (0.010)  |
| Prob. Chow   | 8.794    | 16.415   | 9.309    | 12.610   |          |          |          |          |
| Observations | 137      | 325      | 139      | 329      | 131      | 323      | 133      | 327      |
| R-squared    |          |          |          | 0.003    |          |          |          |          |
| Ν            | 47       | 47       | 47       | 47       | 47       | 46       | 47       | 45       |

Table 7. Sub-Group Regression

Note: (1) Commissioner Turnover, (2) Commissioner Non-Turnover, (3) Director Turnover, (4) Director Non-Turnover. Robust standard errors are shown in parentheses. \*, \*\*, and \*\*\* represent 10%, 5%, and 1% levels respectively.

## The Impact of Liquidity on Profitability

Based on the regression analysis results, the liquidity variables represented by the LDR and CR proxies exhibit a positive and significant influence on both ROA and ROE, although with some inconsistency. Specifically, a higher LDR corresponds to a higher ROE, indicating a unidirectional relationship between the two. Thus, it can be inferred that H1a is accepted since LDR continues to exert a positive and significant influence on one of the profitability indicators by utilizing equity to generate profits. This finding aligns with prior research by Qurotulaeni & Dailibas (2022), which suggests that LDR influences profitability through effective bank liquidity management. Similar findings by Hermuningsih et al. (2022) and Pratama et al. (2021) also highlight the positive impact of liquidity on profitability.

The CR also shows a positive and significant effect on ROA, meaning that a higher CR improves ROA by indicating the bank's ability to meet short-term obligations without compromising liquidity. High liquidity ratio builds customer trust in the bank's stability, leading to increased customer transactions (Ismanandar, 2016). Research by Rianty & Noviarni (2022) supports these conclusions, showing that CR improves bank performance. Therefore, H1b is validated, indicating that CR helps banks efficiently utilize assets and equity, boosting profitability.

# The Impact of Digital Transformation on Profitability

Our regression analysis reveals that when banks undergo digital transformation, their profitability tends to improve. Specifically, we found positive impacts on key metrics like Return on Assets (ROA) and Return on Equity (ROE). This means that banks that embrace digital transformation strategies, keeping up with technological advancements and economic trends, are less likely to experience financial crises and tend to be more profitable than those slower to adopt digital innovation (Shabri, 2022). The digital transformation journey in the banking sector began with the introduction of Automated Teller Machines (ATMs). These machines revolutionized banking by allowing customers to withdraw cash on their own, without needing assistance at branch offices. This was followed by the advent of internet banking and SMS banking, providing customers with online services. The evolution continued with mobile banking (m-banking), which offers advanced features and services, enabling customers to conduct online transactions anytime and anywhere, without needing to be physically present at a bank (Putra, 2022). This progressive evolution is driven by customers' perceived benefits and ease of use, aligning with the principles of the Technology Acceptance Model (TAM) theory (Setyono, 2022). Research by Shanti et al. (2022) and Maharani & Daljono (2023) supports these conclusions, showing that digital transformation improves bank performance and profitability. Therefore, H2 is validated, indicating that digital transformation helps banks efficiently utilize assets and equity, boosting profitability.

# The Role of Commissioner Turnover in Moderating the Impact of Digital Transformation on Profitability

The results of moderation tests utilizing three methods pure moderation, MRA, and sub-groups consistently indicate that commissioner turnover effectively moderates (strengthens) the influence of Digital Transformation (DTN) on profitability. Banks that regularly, repeatedly, and consistently change their board of commissioners tend to exhibit higher levels of profitability. This practice aims to ensure the continuity and consistency of established policies while allowing for adjustments based on evolving conditions, situations, and developments over time. Furthermore, banks undergoing frequent changes in their board of commissioners are better positioned to enhance supervision of management decisions and strategies, particularly those related to digital transformation initiatives. Frequent changes bring fresh perspectives and diverse skills, fostering innovation and adaptability (Syahputri & Saragih, 2024). This approach aligns with stakeholder and legitimacy theories, enhancing relationships with stakeholders and ensuring the bank's viability (Lindawati & Puspita, 2015; Pratama & Deviyanti, 2022). Thus, H3 is supported.

## The Role of Director Turnover in Moderating the Impact of Digital Transformation on Profitability

The results of moderation tests utilizing three methods pure moderation, MRA, and sub-groups consistently demonstrate that director turnover effectively moderates (strengthens) the impact of Digital Transformation (DTN) on profitability. Banks implementing consistent and periodic changes in their board of directors' personnel introduce new perspectives and a diverse range of expertise into the strategic decision-making process, spanning daily, monthly, quarterly, and semiannual cycles, in line with the company's strategic policies set by the board of commissioners. This fosters more informed technical and operational discussions and decisions regarding digital transformation initiatives, ensuring alignment with the bank's overarching strategic objectives, technological advancements, and economic trends. This dynamic approach helps banks adapt to technological and market changes, driving profitability (Ranu et al. 2017; Riyandika & Saad, 2020). Therefore, H4 is affirmed, indicating that director turnover positively influences the impact of digital transformation on profitability.

# **Managerial Implication**

Managers can improve bank performance in several ways, such as improving liquidity management, implementing digital transformation, and changing the board of commissioners and directors regularly. These strategies can help reduce the potential for fraud by the board of commissioners and directors. Although this research offers valuable insights, further research is needed to explore other factors that may influence bank performance.

## **CONCLUSIONS AND RECOMMENDATIONS**

## Conclusions

The result of this study proves profitability theory, particularly the aspect of managerial efficiency. This theory suggests that profitability is closely linked to the efficiency with which management utilizes resources, one of which is in terms of liquidity. Good liquidity management will provide a positive effect on bank profitability in accordance with liquidity preference theory. This theory suggests that firms hold their liquid assets to pay those obligations at lower cost, without raising external financing. The results of the study highlight that properly administered liquidity serves as a solid financial backstop for banks to fulfill immediate commitments and, at the same time, increase operational gains. Additionally, the importance of digital transformation initiatives aligns with dynamic capabilities theory, which states that organizations need to reconfigure their resources as environments change to maintain a competitive advantage. The study shows that in a competitive marketplace (i.e., the financial market), simply adopting digital technology like mobile banking applications can help lower operational costs as well as enhance customer experience. This finds support from the theory that suggests that banks adopting digital transformation are in a better position to innovate and adjust quickly with changes in the market, thereby improving profitability.

Moreover, this study is in accordance with agency theory, especially regarding board refreshment. In organizational theory, agency theory states that if management interests are not in line with shareholder interests, there will be potential for fraud. The results show that by regularly rotating the board of commissioners and directors, fresh perspectives combined with outside expertise can lead to innovation & strategic insights. In addition, these changes create a positive organizational culture that reduces fraud risk and improves the bank's financial success. Our study offers interesting insights for banks to achieve profitable outcomes in these three areas: aggressive grip on liquidity, proactive digitalization, and orderly board transition. These strategies are rooted in wellestablished theories and are essential to improving banks' competitiveness and profitability in a dynamic financial landscape.

## Recommendations

To maintain performance stability, generally banks need to continue to develop, implement and manage their liquidity and digital transformation strategies very carefully. Liquidity management requires precise, sharp, and careful consideration in decision-making related to the capital costs incurred by the bank, making it the most crucial strategy in the banking business. This includes efforts to make operational expenditures more efficient through the implementation of operational digitalization, while still strengthening security and protection for both customers and the bank. Thus, the sustainability of bank operations will be increasingly maintained, especially if supported by periodic changes in commissioners and directors who have a vision and mission that are in line with the times. These updates must always consider the interests of internal and external stakeholders, following stakeholder theory and the principle of legitimacy. For future research, it would be beneficial to investigate how digital transformation affects profitability in the non-financial sector. Although this study focuses on the financial sector, research into other sectors can provide valuable insights into the broader impact of digital transformation initiatives.

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