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Liquidity and Leverage Effects on Sudatel's Financial Performance (2015–2024)

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Abstract: This study examines the effect of liquidity and financial leverage on the financial performance of Sudatel Telecommunications Group Ltd. over the period 2015–2024, a time marked by economic and financial instability in Sudan. A descriptive–analytical approach was employed, using SPSS to conduct correlation analysis, linear regression, and ANOVA. The results reveal a strong and statistically significant positive relationship between liquidity and financial performance. Specifically, the Quick Ratio emerged as the most influential predictor of Return on Assets (ROA), with a regression coefficient of 5.698 at a significance level of 0.013. In contrast, financial leverage showed no significant effect on ROA (P = 0.470), indicating that debt financing did not contribute to profitability. Earnings per Share (EPS) also exhibited no significant impact, underscoring its dependence on external market factors.

By distinguishing between liquidity measures and providing context-specific evidence from Sudan's telecommunications sector, this study addresses a research gap in fragile economies. It recommends strengthening quick liquidity management, minimizing reliance on debt, and improving working-capital efficiency to enhance financial resilience

Keywords: liquidity; financial leverage; financial performance; return on assets (ROA); Sudatel; Sudanese telecommunications sector.

تأثير السيولة والر افعة المالية على الأداء المالي لشركة سوداتل للاتصالات (2015 - 2024)

الدكتورة / نجلاء فتح الرحمن القاضي
كلية إدارة الأعمال | جامعة الطائف | المملكة العربية السعودية

المستخلص: تهدف هذه الدراسة إلى فحص أثر السيولة والرافعة المالية على الأداء المالي لمجموعة سوداتل للاتصالات خلال الفترة 2015–2024، وهي فترة شهدت اضطرابات اقتصادية ومالية في السودان. اعتمدت الدراسة على المنهج الوصفي–التحليلي، مستخدمة برنامج SPSS لإجراء تحليلات الارتباط والانحدار الخطي وتحليل التباين.(ANOVA)

أظهرت النتائج وجود علاقة إيجابية وقوية ذات دلالة إحصائية بين السيولة والأداء المالي. حيث برز النسبة السريعة (Quick Ratio) كأهم متغير مؤثر على العائد على الأصول (ROA) بقيمة معامل انحدار 5.698عند مستوى دلالة 0.013. في المقابل، لم تظهر الرافعة المالية أي تأثير معنوي على(ROA (P = 0.470 ، ما يشير إلى محدودية دور التمويل بالديون في تعزيز الربحية. كما لم يظهر ربح السهم (EPS) تأثيرًا معنويًا، مما يعكس اعتماده على عوامل خارجية.

تسلط الدراسة الضوء على فجوة بحثية في القطاع السوداني، وتوصي بتعزيز إدارة السيولة السريعة، وتقليل الاعتماد على الديون، وتحسين كفاءة رأس المال العامل لتعزيز صلابة الأداء المالي.

الكلمات المفتاحية: السيولة، الرافعة المالية، الأداء المالي، العائد على الأصول(ROA) ، شركة سوداتل، قطاع الاتصالات السوداني.

Introduction

The telecommunications sector is one of the vital industries that plays a fundamental role in supporting the national economy and achieving sustainable development. It serves as a cornerstone for communication and information exchange and contributes significantly to enhancing the efficiency of diverse economic activities. In light of the intensifying competition and the rapid technological advancements in recent years, telecommunications firms have faced complex financial and administrative challenges, necessitating the optimal utilization of their resources to ensure financial sustainability, enhance corporate value, and achieve the satisfaction of shareholders and stakeholders alike.

Liquidity and financial leverage are among the most important financial indicators reflecting a company's efficiency in managing its financial resources. Liquidity indicates the firm's ability to meet short-term obligations and sustain stable operations, while leverage reflects the extent of reliance on external financing and its impact on the company's risk–return profile. The significance of examining these variables lies in their direct and critical role in influencing financial performance, which is often assessed through indicators such as return on assets (ROA), return on equity (ROE), and earnings per share (EPS), particularly in capital-intensive sectors such as telecommunications.

In the Sudanese context, Sudatel Telecommunications Group Ltd. represents a pivotal case worthy of study. As one of the largest contributors to telecommunications infrastructure development, the company has simultaneously encountered numerous challenges due to economic, financial, and political fluctuations during the period 2015–2024. This has created a need for an analytical study measuring the effects of liquidity and leverage on the company's financial performance, with the aim of producing results and recommendations that support decision-makers and practitioners in both the telecommunications sector and the financial domain. Accordingly, this research seeks to address this knowledge gap by offering an applied study on the relationship between liquidity, leverage, and financial performance in the Sudanese telecommunications sector, focusing specifically on Sudatel. The study aspires to deepen the understanding of this relationship and contribute to the development of financial policies and strategies that support the sustainability of this crucial sector.

1.2 Research Problem

Financial performance reflects a company's ability to manage its resources efficiently. Liquidity and leverage shape this performance through their direct effects on financing structure, investment activities, and business continuity. Despite their importance, Sudanese telecommunications companies—including Sudatel—have faced significant economic and financial challenges between 2015 and 2024, such as exchange rate volatility, high inflation, and difficulties in securing financing. These conditions may have adversely affected their financial performance. Although several studies have explored factors influencing financial performance, limited attention has been paid to the relationship between liquidity, leverage, and financial performance in the telecommunications industry. This gap underscores the need for an empirical investigation that enhances understanding of this relationship and generates practical insights for financial and managerial decision-making in this strategic sector.

Based on the foregoing, **the research problem can be framed in the following questions:**

1- What is the effect of liquidity on the financial performance of Sudatel Telecommunications Group during 2015–2024?
2- What is the effect of financial leverage on the company's financial performance during the same period?
3- Does the effect of liquidity and leverage on financial performance vary under different economic and financing conditions faced by the company during the study period?
4- To what extent can the findings of this study inform the improvement of financial policies and strategies in Sudanese telecommunications firms?

1.3 Research Objectives

This study seeks to achieve the following objectives:

- To examine the effect of liquidity on the financial performance of Sudatel Telecommunications Group during 2015–2024.
- To measure the effect of financial leverage on the company's financial performance during the same period.
- To analyze the interactive relationship between liquidity, leverage, and financial performance under the economic and financing challenges faced by the company.

- To provide practical recommendations for decision-makers and practitioners in the Sudanese telecommunications sector aimed at enhancing financial performance and ensuring corporate sustainability.

1.4 Significance of the Study

The significance of this study lies in its focus on the effect of liquidity and financial leverage on the financial performance of Sudanese telecommunications companies, through an applied case study of Sudatel during 2015–2024. Theoretically, the study enriches the literature on the relationship between financial indicators and corporate performance. Practically, it provides decision-makers and practitioners with evidence-based recommendations that can inform financial policy-making and support the sustainability of the telecommunications sector.

1.5 Research Hypotheses

Guided by the research objectives, the following hypotheses are formulated for empirical testing:

(1) There is a statistically significant relationship between liquidity and the financial performance of Sudatel Telecommunications Group.

(2) There is a statistically significant relationship between financial leverage and the financial performance of the company.

1.6 Scope of the Study

The scope of this study is defined as follows:

- **Temporal scope:** The period from 2015 to 2024, enabling an analysis of the developments in financial performance, liquidity, and leverage during a defined phase of Sudatel's operations.
- **Spatial scope:** Sudatel Telecommunications Group Ltd., listed on the Abu Dhabi Securities Exchange, without generalizing the results to other Sudanese telecommunications firms.
- **Subject scope:** The relationship between liquidity, leverage, and financial performance, while controlling certain influencing variables such as company size and macroeconomic volatility.

2.2 Theoretical Framework on Liquidity, Financial Leverage, and Financial Performance

Liquidity is one of the most important financial indicators, as it reflects a firm's ability to meet short-term obligations and maintain continuity in its operating activities. The most commonly used measures include the Current Ratio, Quick Ratio, and Cash Ratio. Several studies have shown that higher levels of liquidity enhance a company's ability to withstand financial risks, which in turn positively influences financial performance (Sharbi, 2016; Abuzayed, 2018, Alarussi & Alhaderi, 2019).

Financial leverage, on the other hand, represents the degree to which companies rely on external financing (debt) within their capital structure. It is typically measured through indicators such as the Debt-to-Assets Ratio, Debt-to-Equity Ratio, and the cost of debt servicing. While the use of debt may increase returns on equity through tax effects, excessive dependence on leverage raises financial risks and undermines long-term stability (Abdelqader, 2023; Oke & Afolabi, 2020).

Financial performance itself is assessed through a variety of indicators that capture profitability and operational efficiency. The most common include Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin, in addition to market-based measures such as Tobin's Q, which reflects investors' evaluation of the firm (Ali, 2025; Ibrahim et al., 2024).

The literature indicates that the relationship between liquidity, financial leverage, and financial performance is not uniform but is influenced by factors such as industry characteristics, firm size, operational risks, and financing policies. For example, some studies (Monday & Dopemu, 2024) found a positive effect of leverage on bank profitability, while others (Abuzayed, 20188; Alarussi & Alhaderi, 2019) reported that higher levels of debt negatively impact financial performance, whereas liquidity exerts a positive effect. This highlights the need for applied studies in different economic contexts—such as the Sudanese telecommunications sector—to verify the validity of these findings.

2.3 Review of Previous Studies

Hearn, B., Piesse, J., & Strange, R. (2009): Overcoming financing constraints in an emerging Islamic market: Evidence from the Sudan telecommunications company. Transnational Corporations Review. This study focused on Sudatel as a pioneering company in an emerging Islamic market. The authors found that enhanced liquidity and the availability of innovative financing instruments improved the company's financial performance and helped overcome financing constraints. However, they also emphasized that financial leverage is a double-edged sword—supporting expansion while simultaneously increasing the risk of default.

Lanfranchi, G., & Hoffmann, A. (2023): Kleptocracy versus Democracy. CSF Sudan Papers. This paper examined Sudatel's governance structures, the role of its board of directors, and the impact of political and economic conditions on its liquidity and financial performance. The study concluded that weak transparency and administrative practices can reduce the effectiveness of liquidity and leverage in enhancing performance.

Jaralnabi, J. B., & AbdAllaha, Z. N. (2025):. Forecasting the volatilities of stock market returns in Sudan and Saudi Arabia. North Africa Journal of Scientific Publishing (NAJSP).

This research analyzed volatility in the Sudanese stock market, including Sudatel shares. It showed that fluctuations in market liquidity directly affected the company's ability to raise equity financing and demonstrated that corporate financial stability is sensitive to both leverage levels and market turbulence.

Mohammed, A. N. (2021): Using financial analysis indicators to support social responsibility accounting: A suggested model. Academy of Accounting and Financial Studies Journal.

Although focused on listed companies in general, this study linked liquidity and leverage indicators to both financial and social performance. It argued that stable financial performance—driven by sound liquidity and debt management—enhances a company's ability to pursue social responsibility initiatives, a finding relevant to the telecommunications sector.

Seck, D., & Gaye, A. (2013): The impact of the global financial crisis on Arab States and Sub-Saharan Africa. Springer. This study explored the effects of the global financial crisis on telecommunications companies such as Sudatel and Zain. It revealed that firms with strong liquidity and balanced capital structures were more resilient, while those with high leverage became increasingly fragile.

Abdelqader, K. (2023): The moderating and mediating role of financial leverage in the interactive effects of capital structure determinants on corporate financial performance: Evidence from non-financial firms listed on the Egyptian Exchange. The study found that liquidity, asset structure, and firm size positively influenced leverage, whereas growth opportunities, business risks, and non-interest tax shields had negative effects. Results showed that most capital structure determinants positively affected financial performance—except growth opportunities—while leverage had a direct negative effect on performance but also played a mediating role between determinants and financial outcomes.

Sharbi, M. A. (2016): The impact of liquidity ratios on the financial performance of SMEs in Algeria. Conducted on service-sector SMEs from 2011 to 2014, this study tested the effects of current, quick, and cash ratios on financial outcomes. Results indicated that the cash ratio was the most influential, positively affecting both financial returns and leverage effects, though no significant relationship was found with economic returns.

Ali, G. (2025): The mediating role of agency costs in the relationship between free cash flow and financial performance: Evidence from engineering and construction firms listed on the Amman Stock Exchange (2011–2022). Using Tobin's Q as a performance measure, the study found that free cash flow positively influenced financial performance both directly and indirectly, through its impact on agency costs, which in turn enhanced performance.

Monday, J. U., & Dopemu, O. S. (2024): This research analyzed the relationship between leverage and profitability in Nigerian banks listed on the stock exchange during 2008–2023 using FGLS. Findings indicated that debt-to-equity ratios had a significant positive effect on return on equity (ROE).

Oke, S., & Afolabi, T. (2020): Investigating Nigerian commercial banks from 2010 to 2018, the study revealed that liquidity had a weak but positive relationship with profitability, while high leverage reduced financial stability and limited long-term growth prospects.

Synthesis of Prior Studies:

The reviewed literature shows a consistent interest in examining the impact of liquidity and leverage on financial performance across different sectors and markets. Most studies conclude that liquidity supports stronger financial outcomes, while leverage represents a double-edged instrument: it can stimulate growth and profitability under certain conditions but can also have negative effects when overused.

In the Sudanese telecommunications context, Hearn, Piesse, and Strange (2009) demonstrated that liquidity and effective leverage management helped Sudatel overcome financing constraints in an emerging Islamic market. More recent studies, such as Lanfranchi and Hoffmann (2023), highlighted the role of governance and institutional frameworks in shaping the effectiveness of liquidity and leverage. Meanwhile, Jaralnabi and AbdAllaha (2025) linked stock market volatility to Sudatel's financing capacity, showing how external dynamics heighten leverage sensitivity.

Complementary findings from Mohammed (2021) emphasized the role of liquidity and leverage in enabling social responsibility, while Seck and Gaye (2013) underscored their importance during global crises. Comparative evidence from Arab contexts (Egypt, Algeria, Jordan) and African markets (Nigeria) further enriches the debate, revealing diverse leverage effects but consistently supporting the positive role of liquidity.

Taken together, these findings suggest that the liquidity–leverage–performance nexus is shaped by contextual factors, including governance, market volatility, and macroeconomic conditions. This diversity in results underscores the need for applied research in the Sudanese telecommunications sector to assess the validity of these conclusions in a local setting.

Empirically analyzing Sudatel's financial performance fills this gap in the present (2015–2024). The findings confirm a strong, positive, and statistically significant link between Return on Assets (ROA) and liquidity, particularly the Quick Ratio. The study, nevertheless, differs from earlier work in that it discovered no noticeable influence of debt on financial performance. This indicates that Sudan's erratic macroeconomic climate and Sudatel's conservative debt policy may balance any possible benefits of debt funding. By examining profits per share (EPS), which exhibit no clear correlation with return on assets (ROA), this study offers another perspective. This implies that operational efficiency is less influenced by external market and policy variables than are share-based indicators .

Finally, the present research gives local knowledge of the financial dynamics of Sudatel even while differing in its assessment of leverage and EPS, albeit it supports the need of liquidity consistent with the body of literature These findings give major empirical backing to the broader debate on how developing and unstable economies such as Sudan are impacted by leverage and liquidity on company performance.

3. Analysis of Results and Hypothesis Testing:

To investigate the impact of liquidity and financial leverage on the financial performance of Sudanese telecommunications companies, the researcher relied on secondary sources, particularly official reports issued by relevant authorities.

3.1 Research Tools and Procedures

Research Methodology

Descriptive–Analytical Approach: The study aims to describe and analyze the relationship between liquidity, leverage, and financial performance in Sudatel, based on available historical financial data.

Quantitative Approach: The study employs numerical measurements of liquidity, leverage, and performance indicators, analyzed using statistical tools to examine the relationships among variables.

Data Sources

The study is based on secondary data, specifically the annual financial statements of Sudatel, supplemented by information published on the company's official website and the Abu Dhabi Securities Exchange, covering the period 2015–2024. These data are considered reliable and accurate, ensuring the objectivity and validity of the analysis.

3.2 Population and Sample

Population: All financial data related to Sudatel Telecommunications Group during the study period.

Sample: A comprehensive (census) sample including all available years from 2015 to 2024, as the study utilizes all available financial data without excluding any year.

Variables: Dependent Variable: Financial performance of the company, measured through recognized indicators such as Return on Equity (ROE) and Earnings per Share (EPS).

Independent Variables:

Liquidity: measured using indicators such as the Current Ratio and Quick Ratio.

Financial Leverage: measured through the Debt-to-Assets Ratio.

3.3 Justification for the Methodology and Tools

The descriptive–analytical approach was selected due to its suitability for capturing and systematically analyzing the current state of financial performance. In addition, SPSS software provides robust statistical tools for testing the research hypotheses and conducting the required analyses.

3.4 Analysis and Hypothesis Testing

To achieve the study's objectives and test the hypotheses, the following analytical procedures will be applied:

3.4.1 Analytical Techniques

- **Descriptive Statistics:** Used to summarize data through measures such as means and standard deviations.

Inferential Statistics: Applied to test hypotheses, including:-

Multiple Linear Regression: to examine the effect of liquidity and financial leverage on financial performance while controlling for other factors.

- **Significance Tests (t-test, F-test):** to determine the strength and statistical significance of the relationships among variables.

Analytical Tool:

The study employs **SPSS** software to conduct the following **analyses:**

Multiple linear regression analysis.-

Correlation analysis.-

Hypothesis testing using t-tests and F-tests.-

4. Analysis and Discussion of the Impact of Liquidity and Financial Leverage on the Financial Performance of Sudanese Telecommunications Companies (Sudatel), 2015–2024

Table (1) presents the dependent and independent variables of the study, based on the literature review and prior empirical research, along with their measurement methods. It also illustrates the proposed theoretical model of the study.

Table 1. Measurement of Study Variables

Type of Variables	Measurement Method	Items Required for Measurement
Dependent Variables	1- Return on Assets (ROA) =	Net Profit (or Loss)
Company's Financial Performance	Net Profit (or Loss) ÷ Total Assets	Total Assets
	2-Earnings per Share (EPS)=	Earnings per Share
	Share Price ÷ Earnings per Share	Share Price
Independent Variables		
:Liquidity	Current Ratio	Total Current Assets
	Total Current Assets ÷ Total Current Liabilities	Total Current Liabilities
	Quick Ratio	Inventory
Financial Leverage	(Total Current Assets – Inventory) ÷ Total Current Liabilities	

Type of Variables	Measurement Method	Items Required for Measurement
	Debt to Assets Ratio	Total Debt
	Total Debt ÷ Total Assets	Total Assets

Source: Prepared by the researcher in light of the study's literature and previous research.

4.1 Correlation Analysis Between Variables

Table (2) reports the results of the Pearson correlation test between the dependent variable (ROA) and the independent variables (Quick Ratio, Debt-to-Assets Ratio, EPS, and Current Ratio). The purpose of this test is to determine the direction (positive or negative) and the strength of the relationships, in addition to testing their statistical significance using the two-tailed significance value (Sig. 2-tailed).

Table 2. Correlation Between Dependent and Independent Variables

Indicators	ROA	Sig. (2-tailed)
Current Ratio	0.712	0.013
Quick Ratio	0.717	0.014
Debt-to-Assets Ratio	-0.370	0.263
EPS	0.355	0.285

The results show a strong and statistically significant positive correlation between ROA and both the Current Ratio ($r = 0.712$, Sig. = $0.013 < 0.05$) and the Quick Ratio ($r = 0.717$, Sig. = $0.014 < 0.05$). This implies that higher levels of liquidity, measured through both current and quick assets, are associated with higher returns on assets, highlighting the importance of liquidity in improving financial performance.

By contrast, the Debt-to-Assets Ratio exhibited a weak and statistically insignificant negative correlation with ROA ($r = -0.370$, Sig. = $0.263 > 0.05$), indicating that higher leverage does not meaningfully explain variations in financial performance. Similarly, EPS showed no significant relationship with ROA ($r = 0.355$, Sig. = $0.285 > 0.05$), suggesting that share profitability did not exert a direct or substantial influence on company performance during the study period.

Overall, liquidity indicators (Current and Quick Ratios) demonstrate the strongest and most significant relationship with financial performance (ROA), while leverage and EPS appear to have no meaningful explanatory power in this context.

4.2 Multiple Regression Analysis of the Effect of Financial Indicators on ROA

Table (3) presents the results of the multiple regression analysis conducted to test the effect of selected financial indicators on ROA. The Quick Ratio was included as an independent variable, while other variables (Current Ratio, Debt-to-Assets Ratio, EPS) were excluded due to lack of statistical significance at the confidence level adopted.

Table 3. Regression Coefficients and Excluded Variables

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	0.146	0.926	—	0.157	0.879
Quick Ratio	5.698	1.844	0.717	3.090	0.013

Excluded Variables

Variable	Beta In	t	Sig.	Partial Correlation	Tolerance
Current Ratio	-0.850	0.420	-0.288	0.001	
Debt-to-Assets Ratio	-0.758	0.470	-0.259	0.925	
EPS	-0.588	0.573	-0.203	0.584	

Dependent Variable: Return on Assets (ROA)

Based on Table (3), the estimated regression equation is:

ROA = 0.146+5.698×(Quick Ratio) ROA = 0.146 + 5.698 \times (Quick \, Ratio) ROA=0.146+5.698×(QuickRatio)

The results indicate that the Quick Ratio is the only variable with a statistically significant effect on ROA (B = 5.698, Sig. = 0.013 < 0.05). This demonstrates that higher levels of quick liquidity enhance the company's ability to generate higher returns on its assets, reflecting efficient management of available liquid resources in support of financial performance.

Other variables (Current Ratio, Debt-to-Assets Ratio, EPS) were excluded from the model due to lack of statistical significance, as their Sig. values exceeded the accepted threshold. The Current Ratio showed a weak negative relationship, while leverage and EPS failed to exhibit significant explanatory power.

These findings highlight the critical role of the Quick Ratio as a key determinant of financial performance compared with other indicators. The evidence suggests that Sudatel relies more heavily on managing its immediate liquidity to improve financial efficiency rather than depending on current liquidity levels, debt structure, or earnings per share.

4.3 Analysis of Variance (ANOVA) Associated with the Regression Model

Table (4) presents the results of the ANOVA test linked to the regression model used to examine the relationship between the independent variable (Quick Ratio) and the dependent variable (ROA). The purpose of this analysis is to test the overall significance of the statistical model by examining the F-statistic and its significance value (Sig.), which indicates the model's ability to explain variations in ROA.

Table 4. ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	**10.240**	**1**	**10.240**	**9.549**	**.013**
Residual	**9.652**	**9**	**1.072**		
Total	**19.892**	**10**			

Dependent Variable: Return on Assets (ROA)

Predictor: Quick Ratio

The results in Table (4) show that the calculated F-value is 9.549 at a significance level of 0.013, which is lower than the 0.05 threshold. This indicates that the regression model is statistically significant overall. In other words, the independent variable (Quick Ratio) is capable of explaining a substantial portion of the variation in ROA.

The sum of squares further reveals that the regression model explains 10.240 of the total variation in ROA (19.892), while the residual accounts for 9.652, representing unexplained variation. This confirms that the model has acceptable explanatory power, which could be improved by including additional variables.

Taken together, the correlation (Table 2), regression (Table 3), and ANOVA (Table 4) results consistently show that liquidity indicators—particularly the Quick Ratio—are the most influential determinants of ROA, while leverage and EPS do not exhibit significant effects.

4.4 Hypothesis Testing

Drawing on the statistical results presented earlier:

Hypothesis 1: There is a statistically significant relationship between liquidity and the financial performance of Sudatel Telecommunications Group.

Supported The analysis confirms a significant positive effect of liquidity on financial performance, with P-value = 0.013 and a regression coefficient (B = 5.698) for the Quick Ratio, underscoring its importance in determining ROA.

Hypothesis 2: There is a statistically significant relationship between financial leverage and the financial performance of Sudatel.

Not supported The analysis indicates that leverage has no significant effect on financial performance (P-value = 0.470), suggesting that debt financing does not meaningfully enhance ROA in the company's context.

4.5 Discussion of Findings

Based on the statistical analysis of Sudatel's financial data (2015–2024), the following insights emerge:

Liquidity and Financial Performance:

The results comprehensively engage with and satisfy the initial research objective and inquiry, which sought to investigate the correlation between liquidity and financial performance.

The results validate Hypothesis 1, confirming a strong positive and statistically significant relationship between liquidity (Current and Quick Ratios) and ROA. However, regression analysis revealed that only the Quick Ratio retained explanatory power, suggesting that the company relies heavily on managing its immediate liquid assets (cash, marketable securities, receivables) to meet short-term obligations, rather than on its broader current assets base. This finding highlights the pivotal role of operational efficiency and cash liquidity in strengthening Sudatel's financial performance.

Leverage and Financial Performance:

The results are presented in a straightforward manner. This addresses the secondary research objective and inquiry, which sought to ascertain the influence of leverage on the financial performance of Sudatel. The results reject Hypothesis 2, showing no significant effect of leverage (Debt-to-Assets Ratio) on ROA. This outcome may reflect the company's conservative approach to debt financing, where the costs of servicing debt offset potential returns. In Sudan's volatile economic environment, over-reliance on debt may actually increase financial risks rather than enhance profitability. This aligns with prior studies indicating that debt can be a double-edged instrument in unstable economies.

Earnings per Share (EPS) and Financial Performance:

The third research objective and question aimed to assess whether Earnings per Share (EPS) significantly influence Sudatel's financial performance. EPS exhibited no significant relationship with ROA. This suggests that EPS is influenced more by external factors such as dividend policies, stock price fluctuations, and macroeconomic conditions than by operational efficiency.

Overall, these findings reinforce the central role of liquidity—particularly quick liquidity—in improving financial outcomes, while minimizing the significance of debt financing and EPS in Sudatel's performance.

5. Contribution of the Study

This study contributes to literature in four keys:

- It provides **context-specific evidence** on the liquidity–leverage–performance nexus in Sudan's telecommunications sector, filling a gap in African emerging markets research.
- It demonstrates that **quick liquidity management** is the critical driver of financial performance, advancing both theoretical understanding and managerial practice.
- It shows that **financial leverage does not significantly enhance performance** under economic volatility, challenging assumptions drawn from studies in more stable environments.
- It expands the scope of analysis by incorporating **EPS alongside liquidity and leverage**, clarifying its limited role in explaining profitability in unstable markets.

Together, these contributions enrich the theoretical debate, refine the operational understanding of liquidity and leverage, and provide evidence-based insights for managers and policymakers seeking to strengthen financial resilience in Sudanese and comparable emerging economies.

6. Conclusion

This study examined the effects of liquidity and financial leverage on the financial performance of Sudatel Telecommunications Group Ltd. over 2015–2024. The findings confirm that quick liquidity significantly enhances performance, while leverage and EPS have no meaningful impact in Sudan's volatile economic environment. These results highlight the critical role of efficient cash management in strengthening firm profitability and resilience.

The study contributes by providing context-specific evidence from the Sudanese telecommunications sector, refining the theoretical understanding of the liquidity–leverage–performance nexus, and offering practical guidance for managers and policymakers.

Strengthening liquidity management, minimizing reliance on debt, and improving working-capital efficiency are recommended to sustain financial performance under economic uncertainty.

7. Recommendations

(A) Company-Level (Practical Recommendations):

1. Strengthen quick liquidity by improving the management of liquid assets (cash, receivables, short-term investments) to ensure efficient settlement of short-term obligations and enhance financial performance.
2. Reduce reliance on debt financing and adopt lower-cost alternatives such as internal financing and investment partnerships, given the insignificant effect of leverage on performance.
3. Review working capital management policies to ensure balance between current assets and liabilities, with particular attention to shortening collection periods and improving cash turnover.
4. Minimize non-essential expenses and focus on operational efficiency to increase profitability and improve returns on assets.

(B) Sector-Level Recommendations

1. Encourage other Sudanese telecommunications firms to adopt effective liquidity management strategies, as liquidity is a critical determinant of financial performance.
2. Regulatory bodies such as the Ministry of Finance and the Telecommunications Authority should closely monitor companies' debt ratios to mitigate financial risks associated with excessive leverage in volatile environments.

8. Suggestions for Future Research

This study opens the door for future applied research on the liquidity–performance relationship across other economic sectors such as banking, industry, and energy, enabling broader comparisons and generalizable insights. It also recommends expanding the scope of leverage analysis by considering additional measures such as the Debt-to-Equity Ratio and Interest Coverage Ratio, beyond Debt-to-Assets.

Future studies may also adopt more advanced statistical models, such as multiple regression with interaction terms or time-series econometric models, to enhance predictive power and improve the accuracy of findings regarding the effects of liquidity and leverage on financial performance.

longitudinal and Comparative Approaches, the 2015–2024 timeframe provided valuable insights, but future studies could extend the period or apply comparative analyses with other emerging markets (e.g., Egypt, Nigeria, or Kenya) to better understand how institutional and macroeconomic differences shape the liquidity–leverage–performance nexus.

Governance and Institutional Mediation, given that prior studies emphasize the role of governance and institutional frameworks, future research could examine whether corporate governance mechanisms, ownership structures, or regulatory reforms mediate or moderate the impact of liquidity and leverage on firm performance.

9.References

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