SILESIAN UNIVERSITY OF TECHNOLOGY PUBLISHING HOUSE

SCIENTIFIC PAPERS OF SILESIAN UNIVERSITY OF TECHNOLOGY 2024
ORGANIZATION AND MANAGEMENT SERIES NO. 202

MANAGING FINANCIAL LIQUIDITY – A SURVEY OF ROAD TRANSPORT SERVICE COMPANIES IN POLAND

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Purpose: This article aims to assess the management of financial liquidity and working capital in companies operating in road transport services in Poland between 2019 and 2022.
Design/methodology/approach: The study was conducted among a group of 110 enterprises with the highest revenues in 2022 to evaluate the strategies they employ in managing working capital. Comparative financial analysis tools and multiple regression models were used to assess the causal relationship between factors shaping financial liquidity.
Findings: The results indicate that the highest level of financial liquidity was achieved in 2020, during the pandemic period. Companies predominantly adopt a moderate strategy in managing working capital, associated with lower insolvency risk. The independent variables included in the regression model explained the variability of the current liquidity ratio. The results of the multiple regression showed that, in the long term, financial liquidity improvement can be achieved through an appropriate asset structure and a low level of short-term liabilities.
Research limitations/implications: The survey was limited to transport services companies in Poland. Limiting the sample to a specific geographical region may hinder generalisations. Therefore, future research could include companies from other countries.
Practical implications: The findings from financially sound companies provide practical insights into effective financial liquidity management methods under challenging market conditions.
Originality/value: The study showed which liquidity and working capital management strategies were effective during the difficult market turbulence. The results can be applied by other entities regardless of their sector of operation.
Keywords: financial liquidity, working capital, management of financial liquidity, transport services enterprise.
Category of the paper: research paper.

1. Introduction

During the pursuit of their operational and strategic goals, enterprises utilize financial, material, and intangible resources. Variations in the level of achieved efficiency, according to resource-based theory, reflect an organization's resources and its capability to utilize them effectively (Barney, Ketchen, Wright, 2021). Effective management of these resources to attain sustainable competitive advantage requires leveraging rare and costly-to-imitate resources or finding ways to enhance the productivity of existing resources. Analyzing the sources of success of highly prosperous firms allows weaker enterprises to identify resources that can be optimized.

Financial liquidity management is crucial for the effective long-term functioning of an enterprise. To ensure the continued operation and development of an organization, there must be a balanced relationship between its asset resources and the sources of their financing (Nowicki et al., 2024). Financial liquidity, defined as the ability to meet current obligations on time, is influenced by the level of short-term debt and the adequacy of current assets (Tokarski et al., 2023). Asset-based liquidity involves the ability to quickly convert assets into cash without significant loss in value (Maślanka, 2019). Cash flow liquidity focuses on covering current and future expenses with current cash inflows. Managing financial liquidity is a complex process involving various actions aimed at ensuring financial security and operational continuity in the future. Effective management of short-term liabilities and the structuring of a secure liability framework are integral aspects of financial liquidity management. Additionally, maintaining a secure asset structure and effectively managing receivables, inventories, and cash are essential for achieving good structural liquidity (Kreczmańska-Gigol, 2020).

Continuous assessment and monitoring of financial liquidity are essential. Through effective financial liquidity management, companies can prevent insolvency (Balina et al., 2021). Maintaining an appropriate debt structure enables a company to maintain credibility as a debtor or borrower (Sajjad, Zakaria, 2018). Long-term financial illiquidity can lead to business failure. Previous studies indicate a relationship between financial liquidity and company profitability (Skupienova et al., 2024, Tulung et al., 2024, Senmache Yrigoin et al., 2022). Pursuing higher profitability may lead to lower financial liquidity and increased reliance on external funds. High financial liquidity, in turn, may limit profitability and hinder company development due to inappropriate asset structures, inefficient capital utilization, and underutilization of financial leverage. Therefore, in corporate financial management, balancing the conflicting goals of maximizing benefits for owners while minimizing the risk of financial illiquidity is crucial (Czerwińska-Kayzer et al., 2021).

Statistical data shows that the transport, freight, and logistics sector in Poland has shown significant growth in recent years, contributing more than the average to the country's GDP. In 2022, the entire transport, freight, and logistics sector generated revenues totalling 375 billion Polish zloty, representing approximately 7% of Poland's GDP. Specifically, companies engaged in road freight transport, as part of the TSL sector, achieved revenues of 190 billion Polish zloty in 2022 (Report on Road Transport in Poland 2023). Achieving these goals is influenced by various internal and external factors. Recent changes in market conditions have significantly impacted the operations of logistics industry enterprises (including the Covid-19 pandemic, border closures, and fuel price increases).

Recent studies focusing on transport and logistics companies listed on the Warsaw Stock Exchange between 2015 and 2021 highlight existing challenges related to financial liquidity levels (Paduszyńska, 2023). Additionally, as emphasized by R. Walasek and G. Zimon, companies providing transport services have significantly felt the effects of market changes resulting from the Covid-19 pandemic (Walasek, Zimon, 2020). Therefore, this study will focus on companies primarily engaged in the PKD section of Transport and Warehousing, subgroup 49.41 - road freight transport. The study has been narrowed down to companies demonstrating positive financial results and high sales revenues to determine which strategies for managing financial liquidity have contributed to achieving good financial performance.

The objective of this article is to assess the management of financial liquidity and working capital in companies engaged in road transport services in Poland from 2019 to 2022. To facilitate this study, the following research questions have been formulated:

1) Have there been changes in the level of financial liquidity among the studied entities between 2019 and 2022?
2) What strategies were employed to manage structural liquidity and working capital?
3) What determinants influence the current financial liquidity?

The outcomes of this research will aid in formulating conclusions regarding practices and strategies that enable the maintenance of financial liquidity despite adverse external factors affecting business operations. Financial liquidity management is crucial for companies in the road transport sector to ensure operational continuity and meet short-term financial obligations efficiently. It involves strategies aimed at optimizing the balance between current assets and short-term liabilities, thereby enhancing resilience against financial challenges. By examining changes in financial liquidity levels over the specified period and identifying the strategies implemented by these companies, the study aims to uncover effective approaches to managing financial resources. Understanding the determinants influencing current financial liquidity will provide insights into the factors driving or hindering financial stability within the sector. The findings will contribute to formulating practical conclusions and recommendations for improving financial liquidity management practices. These insights will be valuable not only for companies in the road transport industry but also for researchers, policymakers, and stakeholders interested in enhancing financial resilience and sustainability amidst dynamic

market conditions. In conclusion, this study seeks to provide a comprehensive analysis of financial liquidity management in the road transport sector in Poland from 2019 to 2022, offering valuable insights into the strategies and determinants shaping financial liquidity despite challenging external factors affecting business operations.

2. Materials and methods

Previous studies conducted across various industries and sectors highlight the impact of business operations on financial liquidity management within enterprises. Research findings from sectors such as construction (Balina et al., 2021; Zimon et al., 2022), food industry (Czerwińska-Kayzer et al., 2021), and energy sector (Zimon, 2020) underscore the necessity of maintaining financial liquidity for current operations and future sustainability (Alshehadeh et al., 2023).

Studies focusing on financial liquidity and other growth determinants primarily involve publicly traded companies listed on stock exchanges (Nerantzidis et al., 2023), due to the availability of financial data. To achieve the objectives of this study, a sample was selected based on financial data of Polish enterprises from 2019 to 2022 gathered from the EMIS database. the annual average of the liquidity ratios of the surveyed companies over the period 2019-2022. These are companies of various types, both listed on a stock exchange and not. As a result, the analysis concerns a different group of companies than those most often analysed in the literature.

The sample included companies operating in road freight transport that employed more than 50 employees, generated revenues exceeding 150 million PLN in 2022, and reported a net profit above zero. These criteria were chosen to assess financial liquidity management across both medium and large-sized enterprises (employing more than 50 people), which are profitable (net profit > 0) and among the highest revenue earners in their respective sectors. As a result, the sample comprised 110 companies.

Based on individual financial statements audited during the study period (2019-2022), the characteristics of the study group in terms of revenues, net profit, total assets, total equity, and total liabilities will be presented. This assessment will determine the average, median, maximum, and minimum financial performance achieved by the analyzed entities. The evaluation of financial liquidity levels and their changes from 2019 to 2022 will be conducted using liquidity ratios and cash flow statement data.

The proportion of companies implementing various working capital management strategies (conservative, moderate, aggressive) in 2022 will be determined by grouping companies based on the share of current assets and current liabilities in their asset structure (Kuciński, 2017).

Determinants influencing current financial liquidity, according to Domańska's model, will be integrated into the analysis to provide a comprehensive understanding of factors impacting financial liquidity management in the road transport sector. According to this model, the dependent variable is the current financial liquidity ratio and the independent variables are the current assets ratio, the liability coverage ratio, the liability structure ratio (Domańska, 2016).

The multiple regression model analyzes the impact of three independent variables on the financial liquidity ratio is as follows:

$$Y_i = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + e_{it} \quad (1)$$

where:

Y - the financial liquidity ratio,

X_1 - the ratio of current assets to total assets,

X_2 - the ratio of total assets to total liabilities,

X_3 - the ratio of total liabilities to current liabilities,

$\beta_0, \beta_1, \beta_2, \beta_3$ - the model parameters,

e – standard error.

The methodology adopted in this study ensures a rigorous analysis of financial liquidity management strategies in Polish road transport companies, leveraging a robust dataset to draw conclusions and formulate recommendations for enhancing financial resilience amidst challenging external conditions.

3. Results and discussion

Among the studied enterprises providing road freight transport services, 32 companies employed fewer than 50 employees, while 77 companies had more than 250 employees. Basic financial data are summarized in Table 1. Over the analyzed period from 2019 to 2022, the companies experienced an overall increase in revenues (with a median of 181.7 million PLN in 2019 and 294 million PLN in 2022). Companies included in the study were profitable in 2022. The analysis revealed that during the study period, the average net profit increased (from 7.7 million PLN in 2019 to 19.8 million PLN in 2022), approximately 2.58 times higher than in 2019. The maximum profit recorded was 318.8 million PLN. Road transport companies are expanding and achieving better results. Entities that incurred losses in previous years showed positive financial results in 2022. The average total assets, equity, and total liabilities indicate an increase in value over the study period. The growth in total assets and equity is viewed positively from a financial liquidity perspective. However, the increase in liabilities

should be compared with changes in the company's current assets to assess its impact on financial liquidity.

The standard deviation indicates that in the studied group, revenue values deviated significantly from the arithmetic mean (440 in 2019 to 556 in 2022). Therefore, the growing variability in revenue values among companies achieving the best results in 2022 should be noted. The coefficient of variation highlights that the greatest dispersion in the studied dataset pertains to net profit.

Table 1.
Financial data of studied companies from 2019 to 2022 - Basic statistics

Item	Year	Average (million PLN)	Median (million PLN)	Minimum (million PLN)	Maximum (million PLN)	Std. Deviation	Coefficient of Variation (%)
Total Revenues	2022	485,2	294,2	150	3417,6	556	115
	2021	380,6	226,4	46,2	2788,1	466	123
	2020	329,4	191,8	22,9	2349,6	404	123
	2019	321,2	181,7	12,5	2483,5	400	125
Net Profit	2022	19,8	10,1	0,2	318,8	38,4	192
	2021	14,0	6,0	-12,2	245,3	28,9	206
	2020	11,2	5,2	-6,6	257,4	27,4	243
	2019	7,7	2,4	-10	205,1	22,0	285
Total Assets	2022	180	128,4	18,4	1153	175	98
	2021	151	99,9	14,7	1068	158	105
	2020	144	96,4	6,6	1068	179	124
	2019	128	96,2	5,6	882	156	121
Total Equity	2022	66,5	41,8	2,9	467	75	115
	2021	53,4	29,4	0,6	447	68	128
	2020	50,0	24,4	-1,7	541	73	147
	2019	41,8	21,4	-2,55	430	63	151
Total Liabilities	2022	114,6	83,9	8,7	686	111	97
	2021	98,1	63,4	7,9	620	102	105
	2020	94,5	60,0	2,9	881	125	132
	2019	82,6	56,9	3,2	660	93	113

Source: Authors' own calculations based on financial data from surveyed companies (n = 110).

3.1. Financial liquidity of surveyed companies

The assessment of financial liquidity using liquidity ratios is the most commonly used method to evaluate the level of liquidity held by a company. In the surveyed enterprises, the current ratio (current assets/current liabilities) improved from 1.26 in 2019 to 1.4 in 2020-2021, and then slightly decreased to 1.35 (Table 2; Fig. 1). This level indicates that the surveyed entities have financial liquidity, with current assets approximately 40% higher than current liabilities. Comparing these ratios with those of companies in Section H Transport and Storage (https://industryratios.pl/) shows that in 2019, transport companies had slightly lower financial liquidity (1.22 compared to a section average of 1.44), and in 2020, the ratio was also lower at 1.4 (1.49 for Transport and Storage). The greatest difference was noted in 2021, where the current liquidity ratio was 1.4 for road transport companies (median 1.24) compared to 1.54 in Section H. It is worth noting that some companies in this group had endangered liquidity

(minimum current ratio of 0.25 in 2019 and 0.53 in 2022). Conversely, some companies had very high current ratios (over 5), indicating over-liquidity.

The quick ratio ((current assets - inventory)/current liabilities) improved over the analyzed period (median from 1.11 in 2019 to 1.21 in 2022). The average for this ratio showed an upward trend until 2021, after which it decreased to 1.3 in 2022. It should be emphasized that the quick liquidity ratio in the surveyed companies was higher than that in Section H Transport and Storage, where it was 0.98 in 2019, 1.03 in 2020, and 1.07 in 2022 (https://industryratios.pl/). The slight difference compared to the current liquidity ratio indicates that the surveyed entities have a minimal share of inventory in current assets, which is likely characteristic of companies in this group.

The cash liquidity ratio (cash and cash equivalents/current liabilities) indicates the portion of current liabilities that a company can pay from its cash reserves. In the surveyed companies, the average level of this ratio increased, indicating improved financial liquidity, although the median in 2022 and 2021 remained similar at 0.11. The optimal level of this ratio is between 0.1 and 0.3 (https://mojeanalizy.pl/ratios/cash-liquidity-ratio), suggesting that the companies have financial liquidity.

The standard deviation indicates that in the surveyed population, the values of the current liquidity ratio deviated most from the arithmetic mean (0.9 in 2020; 0.81 in 2021). Thus, there was variability in the values of the current liquidity ratio among companies achieving the best results in 2022. The coefficient of variation indicates that the greatest dispersion in the surveyed data set pertained to the cash liquidity ratio.

Table 2.
Financial Liquidity Ratios of Examined Companies from 2019 to 2022

Item	Year	Average (million PLN)	Median (million PLN)	Minimum (million PLN)	Maximum (million PLN)	Std. Deviation	Coefficient of Variation (%)
Current Ratio	2022	1.35	1.24	0.53	5.09	0.65	45
	2021	1.40	1.24	0.50	5.20	0.81	58
	2020	1.40	1.22	0.35	0.25	0.90	51
	2019	1.26	1.14	0.25	4.30	0.64	64
Quick Ratio	2022	1.30	1.21	0.40	4.16	0.59	46
	2021	1.36	1.20	0.40	5.00	0.78	58
	2020	1.37	1.21	0.34	7.15	0.82	61
	2019	1.22	1.11	0.24	3.93	0.56	47
Cash Ratio	2022	0.22	0.11	0.01	2.46	0.35	155
	2021	0.23	0.11	0.01	2.91	0.41	179
	2020	0.30	0.15	0.01	6.20	0.65	217
	2019	0.17	0.07	0.01	1.71	0.25	153

Source: Authors' own calculations based on financial data from surveyed companies (n =110).

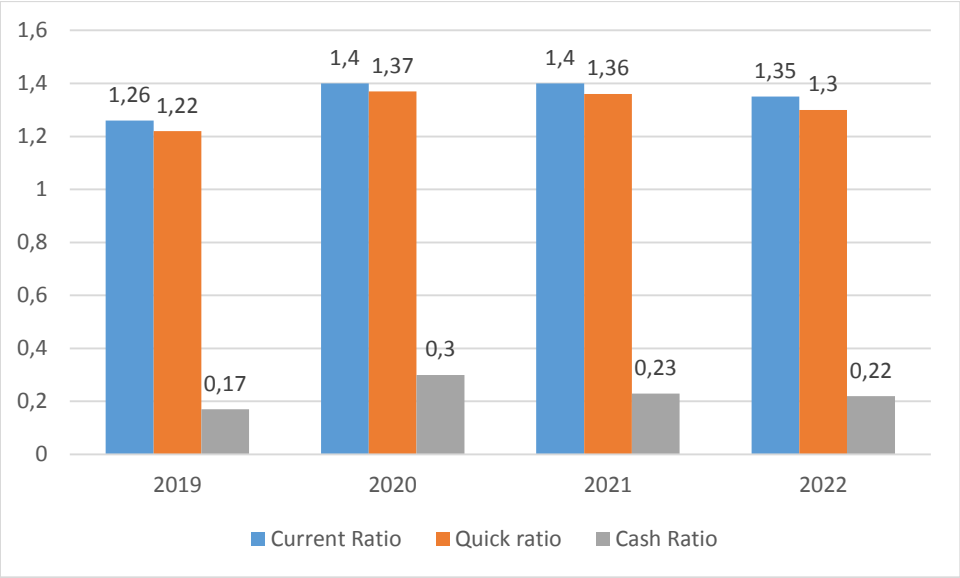

Figure 1. Annual average of Financial Liquidity Ratios in studied companies from 2019 to 2022.
Source: Authors' own elaboration based on financial data of the studied entities.

Working Capital is a measure of financial liquidity as it determines the amount of assets needed to cover the repayment of current liabilities. In the short-term approach, working capital is the difference between current assets and current liabilities (Bolek, 2017). The risk of liquidity loss decreases with higher levels of working capital. Additionally, working capital serves as a safety buffer, protecting an organization from operational losses. In situations where current assets exceed current liabilities, it allows the renewal of operational cycles at a specified level (Morshed, 2024). Working capital also defines a safety margin against uncertainty, ensuring timely payments to suppliers and obligations (Kuciński, 2015).

The results of the working capital analysis indicate (Table 3) that each year a higher percentage of companies had positive working capital.

Table 3.
Percentage of companies with positive or negative working capital between 2019 and 2022 (in %)

Percentage of companies with	**2019**	**2020**	**2021**	**2022**
positive working capital	54	61	63	61
negative working capital	46	39	37	39

Source: Authors' own elaboration based on financial data of the studied entities.

In 2019, 54% and in 2022, 61% of companies had more current assets than current liabilities. These companies financed their current assets with both fixed capital and short-term liabilities, ensuring current liquidity. This situation is most favorable for companies, especially prevalent in medium and large organizations (Przygoda, 2016). Conversely, other companies showed negative working capital, meaning they financed current assets with short-term liabilities, including part of their fixed assets (46% in 2019 and 39% in 2022). This situation may indicate financial difficulties, as current assets are insufficient to repay short-term debt.

However, it could also signify the use of inexpensive financing sources to fund assets without relying on long-term debt or increasing equity (Ostaszewski, 2015).

In 2022, 105 companies were achieving positive cash flow from operating activities (95% of the companies surveyed). This situation shows that all expenses relating to operating activities are covered by the income generated. The surplus can be used to finance investments or to service debt. Only 5 entities did not have sufficient cash to finance operating activities (Table 4).

Table 4.
Cash flow of the surveyed companies in 2022

Item	Average (million PLN)	Median (milion PLN)	Minimum (million PLN)	Maximum (PLN million)	Std dev	Coefficient of variation (%)
Cash flow from operating activities	25,8	14,45	-15,1	297,0	42,5	165
Cash flow from investing activities	-9,35	-2,21	-285	39,3	34,2	-370
Cash flows from financing activities	-14,25	-8,7	-105	26,8	22,6	-159

Source: Authors' own elaboration based on financial data of the studied entities.

Having positive cash flow indicates financial security, the need to acquire new external sources of financing. In previous years, a slightly lower percentage of companies generated positive cash flow from operating activities (92% in 2019, 94% in 2020, 89% in 2021). Perhaps the weakest result in 2021 was due to external factors.

Negative cash flows from financing activities (averaging PLN 14.25 million in 2022) indicate greater expenditure than income from these activities. Expenditure represents the repayment of debt incurred. Negative flows from investing activities mean incurring expenditures on investment purchases, which indicates the development of the companies under review.

3.2. Working capital management strategies

An examination of the asset-liability structure showed that 35 companies follow a conservative working capital management strategy. In these companies, the share of current assets in total assets is greater than 50%, while the share of current liabilities is below 50% of liabilities. These companies have liquidity because current assets are greater than current liabilities, but in order to assess the level of liquidity, it is necessary to measure, for example, the current ratio and assess by how much current assets are greater than current liabilities (the postulated value is about 1.5). A low proportion of current liabilities indicates a lower risk of insolvency.

The aggressive strategy was followed by only four entities in 2022. In this case, the share of current assets in total assets was less than 50%, while the share of short-term liabilities is above 50% of the amount of liabilities. Companies finance not only current assets but also

a portion of fixed assets with current liabilities. High indebtedness results in a high risk of insolvency, however, it also allows for higher leverage profit.

A moderate strategy was followed by the remaining companies. Some of them (57) had current assets and liabilities below 50% of total assets, indicating a high (above 50%) share of non-current assets in total assets and a secure payment situation, as non-current assets are financed with fixed capital. The remaining group are companies with current assets and liabilities above 50% of total assets. In this situation, the company has significantly fewer fixed assets, but they too are likely to be largely covered by fixed capital.

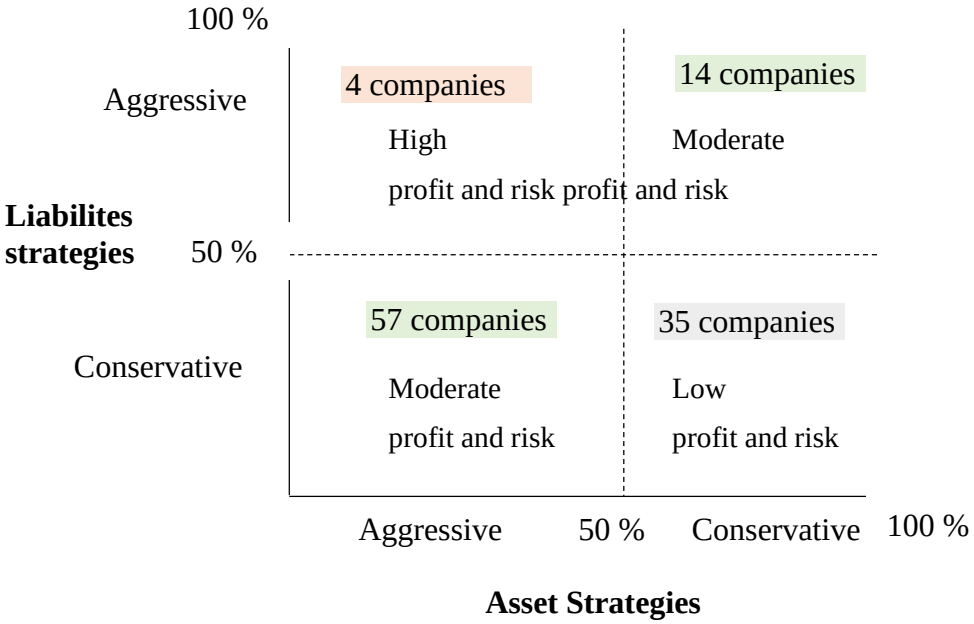

Figure 2. Working capital strategies in the surveyed entities in 2022.

Source: Authors' own elaboration based on financial data of the surveyed entities.

3.3. Determinants of structural liquidity – a multiple regression model results

The multiple regression model analyzes the impact of three independent variables on the financial liquidity ratio (1). According to the formula given, liquidity will be higher the higher the share of current assets in total assets (X1). The degree of liquidity will also depend on the liquidity of current assets, i.e. their ability to be converted into cash. In addition, liquidity will be influenced by the structure of asset financing sources (X2). The more indebted business units are, the lower the ability to settle current liabilities on time. Furthermore, liquidity will be highly dependent on the term structure of this debt (X3). The higher the share of short-term liabilities in total liabilities, the more difficult it is for an entity to meet all payments when they fall due.

The coefficients of the multiple regression equation and regression summary is given in the table 5.

Table 5
Regression summary of dependent variable: Financial liquidity

N=94	b*	Std. Err. of b*	b	Std. Err. of b	t(90)	p-value
Intercept			-1.45814	0.175811	-8,29381	0.00000
X1	0.614195	0.056796	0.02008	0.001857	10.81406	0.00000
X2	0.780234	0.048846	0.52708	0.032997	15.97350	0.00000
X3	0.628995	0.057414	0.61403	0.056048	10.95549	0.00000
$R = 0.891055$, $R^2 = 0.79398045$, Adjusted $R^2 = 0.78711313$, $F(3,90) = 115,62$, $p < 0.0000$, St Error of estimate 0.30265						

Source: Authors' own elaboration based on financial data of the surveyed entities.

A high R value (R = 0.89) signifies that the model is well-fitted to the data. 79% of the variability in the financial liquidity ratio can be explained by the independent variables X1, X2, and X3 (R^2 = 0.79). This high level of explanation suggests a well-fitting model. The standard error of the estimate of 0.30 indicates the average difference between the observed and predicted values of the financial liquidity ratio. A smaller standard error denotes a more accurate model. Furthermore F(3,90) = 115.62 with a very low significance level ($p < 0.000$) suggests that the overall model is statistically significant.

Based on the model obtained, it can be seen that in the studied companies, each of the three independent variables significantly influences the financial liquidity ratio. However, the structure of liabilities is the most important, followed by the current assets ratio.

4. Conclusions

Financial liquidity, a necessary condition for the functioning of any enterprise, requires continuous evaluation and monitoring. Proper management of financial liquidity levels enables both survival during market turbulence and stable development. The financial liquidity of companies is determined by factors that depend on and are independent of the company. The surveyed companies performed well financially in the period under review, but on the basis of the standard deviation it can be seen that there is an increasing variation in the value of revenues in the following years. Median and average liquidity ratios indicate that more than 90 per cent of the companies surveyed had current and quick liquidity. Despite the fact that companies in the same industry, with high revenues and profitability were included in the study, it appears that some companies had a low level of financial liquidity during the period under review. Compared to the average for the section, transport companies had slightly worse liquidity than the average indicators for the Transport and storage section.

In the analysed period it was noted that liquidity improved in terms of cash flow - positive cash flow from operating activities was achieved in 2019 - 92% of companies, in 2020 - 94%, in 2021 - 89%, 2022 - 95%. This is a very good trend, as positive operating cash flows enable the realisation of investment and development activities.

An examination of the structure of assets and liabilities indicated that the proportion of companies with positive working capital is increasing. It can therefore be concluded that the risk of losing financial liquidity is decreasing. The surveyed companies financed their current assets with both fixed capital and short-term liabilities.

The evaluation of liquidity management strategies, leads to the following conclusions. The use of a moderate strategy in working capital management is predominant, which indicates a secure payment situation (moderate risk), as fixed assets are financed with fixed capital. Continuing the working capital management process at an optimal level accelerates the creation of value for the company, and facilitates the design of a framework in alleviating financial constraints so that the company's resources are used efficiently (Bhattacheryay, 2023).

In addition, some of the entities apply a conservative strategy in working capital management, maintaining a significantly higher level of current assets than current liabilities. This is a safe strategy from a liquidity point of view, but less profitable. Excessive current asset management freezes funds that could be used for other purposes. This strategy will certainly improve the company's position in terms of solvency. It may be that previous market experience has led to the decision to maintain a financial safety buffer.

The impact of the Covid pandemic had significant negative consequences for road transport operations (Ziółkowska, 2021; Choi, 2023). The strategies applied by the surveyed companies proved to be effective and allowed them to maintain their liquidity.

The independent variables adopted in the regression model - the current asset ratio, the liability coverage ratio and the liability structure ratio - explained to a large extent the variation in the level of the current ratio. The model of financial liquidity showed that the liability coverage ratio was the main driver of current liquidity, followed by the current asset ratio. Improved liquidity is influenced by the increasing prevalence of total assets over total liabilities, which directly influenced a greater ability to meet current liabilities. The results obtained from the regression model confirm the observations made above that, in the long term, improvements in financial liquidity can be achieved through a proper asset structure and a low level of current liabilities. Ongoing monitoring of key liquidity indicators is very important. Companies should aim to optimise these ratios in order to maintain or improve liquidity (Khurana et al., 2024).

Further research should include consideration of exploring additional variables or other analytical methods to gain a more comprehensive understanding of the determinants of financial liquidity.

References

1. Alshehadeh, A.R., Abdallah, A.A.J., Soda, M.Z., Al-Khawaja, H.A., Injadat, E. (2023). The Impact of Cash Liquidity Quality on Financial Strength Sustainability: Evidence from Industrial Companies. *Review of Economics and Finance, 21*, pp. 1425-1431, https://doi.org/10.55365/1923.x2023.21.156
2. Balina, R., Idasz-Balina, M., Azam Achsani, N. (2021). Predicting Insolvency of the Construction Companies in the Creditworthiness Assessment Process—Empirical Evidence from Poland. *Journal of Risk and Financial Management, 14,* 453. https://doi.org/10.3390/jrfm14100453
3. Barney, J.B., Ketchen, D.J., Wright, M. (2021). Resource-Based Theory and the Value Creation Framework. *Journal of Management, Vol. 47, No. 7,* https://doi.org/10.1177/01492063211021655
4. Bhattacheryay, S. (2023). Distinguished Competency and Efficacy of Working Capital Management Ensuing Firm Survival, Liquidity, Solvency and Profitability: A Study on Automotive Industry. *American Business Review, 26(1),* pp. 19-64, https://doi.org/10.37625/abr.26.1.19-64
5. Bolek, M. (2017). Kapitał obrotowy netto i płynność finansowa – analiza na podstawie spółek notowanych na NewConnect. In: S. Wieteski, D. Burzyńska (Eds.), *Granice finansów XXI wieku. Finanse publiczne, rynek finansowy, finanse przedsiębiorstw*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego, p. 196.
6. *Cash liquidity ratio*. Retrieved from: https://mojeanalizy.pl/ratios/cash-liquidity-ratio, 16.01.2024.
7. Choi, T.Y., Hofmann, E., Templar, S., Rogers, D.S., Leuschner, R., Korde, R.Y. (2023). The supply chain financing ecosystem: Early responses during the COVID-19 crisis. *Journal of Purchasing and Supply Management, 29(4), art. no. 100836,* https://doi.org/10.1016/j.pursup.2023.100836
8. Czerwińska-Kayzer, D., Florek, J., Staniszewski, R., Kayzer, D. (2021). Application of Canonical Variate Analysis to Compare Different Groups of Food Industry Companies in Terms of Financial Liquidity and Profitability. *Energies, 14*, 4701. https://doi.org/10.3390/en14154701
9. Domańska, T. (2016). Determinanty płynności finansowej spółdzielni mleczarskich. *Zarządzanie Finansami* i *Rachunkowość, 4(4),* pp. 41-51.
10. *Industry Ratios*. Retrieved from: https://industryratios.pl/, 15.01.2024.
11. Khurana, M.K., Sharma, S., Bhargava, N. (2024). The Impact of Financial Ratios and Pandemic on Firm Performance: An Indian Economic Study. *Lecture Notes in Networks and Systems, 844*, pp. 41-51.

12. Kreczmańska-Gigol, K. (2020). Istota płynności finansowej. In: K. Kreczmańska-Gigol (Ed.), *Analiza płynności finansowej przedsiębiorstwa: płynność strukturalna, płynność potencjalna, zdolność płatnicza*. Warszawa: Difin.
13. Kuciński, A. (2015). Wpływ strategii zarządzania kapitałem obrotowym netto na płynność finansową przedsiębiorstwa. In: Z. Głodek, A. Kuciński (Eds.), *Studia i Prace Wydziału Ekonomicznego, No. 8, Wybrane aspekty z finansów i rynków finansowych*. Gorzów Wielkopolski: Państwowa Wyższa Szkoła Zawodowa im. Jakuba z Paradyża w Gorzowie Wielkopolskim.
14. Kuciński, A. (2017). Strategie zarządzania kapitałem obrotowym netto w przedsiębiorstwie na przykładzie wybranych spółek notowanych na GPW w Warszawie. *Studia i Prace Wydziału Ekonomicznego Państwowej Wyższej Szkoły Zawodowej im. Jakuba z Paradyża w Gorzowie Wielkopolskim, no. 6, vol. 14.* Gorzów Wielkopolski.
15. Maślanka, T. (2019). *Płynność finansowa determinantą zdolności kontynuacji działalności przedsiębiorstwa*. Warszawa: CeDeWu.
16. Morshed, A. (2024). Strategic working capital management in Polish SMEs: Navigating risk and reward for enhanced financial performance. *Investment Management and Financial Innovations, 21(2),* pp. 253-264; https:// doi.org/10.21511/imfi.21(2).2024.20
17. Nerantzidis, M., Koutoupis, A., Tzeremes, P., Drogalas, G., Mitskinis, D. (2023). The effects of covid-19 on firms' liquidity: evidence from the Athens Stock Exchange. *Journal of Business Economics and Management*, *24(1),* pp. 155-176. https://doi.org/10.3846/jbem.2023.18637
18. Nowicki, J., Ratajczak, P., Szutowski, D. (2024) Influence of Macroeconomic Factors on Financial Liquidity of Companies: Evidence from Poland. *Risks, 12(7), art. no. 114*; https://doi.org/10.3390/risks12070114
19. Ostaszewski, J. (2015). Kapitał obrotowy netto w przedsiębiorstwie i metody jego pomiaru. In: J. Ostaszewski (Ed.), *O nowy ład finansowy w Polsce. Rekomendacje dla animatorów życia gospodarczego*. Warszawa: Oficyna Wydawnicza SGH.
20. Paduszyńska, M. (2023). Financial liquidity and profitability assessment of transport and logistics companies listed on the Warsaw Stock Exchange. *Scientific Papers Of Silesian University Of Technology, Organization And Management Series, No. 180,* pp. 523-535.
21. Przygoda, M. (2016). *Zarządzanie kapitałem obrotowym*. In: M. Postuła (Ed.), *Finanse firmy w decyzjach menedżerskich*. Warszawa: Wydawnictwo Naukowe Wydziału Zarządzania Uniwersytetu Warszawskiego.
22. *Report on Road Transport in Poland 2023*, https://tlp.org.pl/raport-transport-drogowy-w-polsce-2023/
23. Sajjad, F., Zakaria, M. (2018). Credit Ratings and Liquidity Risk for the Optimization of Debt Maturity Structure. *Journal of Risk and Financial Management, 11(2),* 24. https://doi.org/10.3390/jrfm11020024

24. Senmache Yrigoin, T.R., Vellón Flores, V.I., Neri Ayala, A.C., Ramos Oyola, N.P. (2024). Liquidity and profitability of the Municipal Savings and Credit Banks of Peru: Period 2020-2022. *Revista de Ciencias Sociales, 30(2),* pp. 504-515, https://doi.org/10.31876/rcs.v30i2.41927
25. Skupienova, M., Konieva, T., Kosturikova, I. (2024). Impact of working capital management of Czech companies on their performance. *Modeling Economic Growth in Contemporary Czechia*, pp. 299-313; https://10.1108/97818375384092024101 9
26. Tokarski, A., Tokarski, M., Mosionek-Schweda, M. (2023). *Pomiar i ocena płynności finansowej podmiotu gospodarczego.* Warszawa: CeDeWu.
27. Tulung, J.E., Sondakh, J.J., Wangke, S.J.C., Posumah, R.F.K. (2024). Effects Of Capital Ratio, Quality Of Receivables, Liquidity, And Gearing Ratio On Profitability: A Study Financial Institutions' Governance. *Journal of Governance and Regulation, 13(3),* pp. 46-56, https://doi.org/10.22495/jgrv13i3art4
28. Walasek, R., Zimon, G. (2020). The analysis of financial liquidity management in small transport enterprises during the COVID 19 pandemic - case study of Poland. *WSEAS Transactions on Business and Economics*, https:// doi.org/10.37394/23207.2020.17.77
29. Zimon, G. (2020). Financial Liquidity Management Strategies in Polish Energy Companies. *International Journal of Energy Economics and Policy, 10,* 365-68. http://doi.org/10.32479/ijeep.9150
30. Zimon, G., Nakonieczny, J., Chudy-Laskowska, K., Wójcik-Jurkiewicz, M., Kochański, K. (2022). An Analysis of the Financial Liquidity Management Strategy in Construction Companies Operating in the Podkarpackie Province. *Risks, 10, 5.* https://doi.org/ 10.3390/risks10010005
31. Ziółkowska, P. (2021). Wpływ pandemii COVID-19 na transport drogowy produktów zbożowych w Polsce. *Zeszyty Naukowe SGGW w Warszawie. Ekonomika i Organizacja Logistyki, 6(3),* 81-91. https://doi.org/10.22630/EIOL.2021.6.3.24