Krakow Review of Economics and Management
Zeszyty Naukowe Uniwersytet Ekonomiczny w Krakowie
2 (1012)
2026

KREM, 2026, 2(1012): 63–80
ISSN 1898-6447
e-ISSN 2545-3238
https://doi.org/10.15678/krem.18770

The Split Payment Mechanism and Financial Liquidity of Enterprises in Section F – Construction

Grzegorz Przekota[1], **Anna Kowal-Pawul**[2], **Rafał Pitera**[3]

[1] Koszalin University of Technology, Faculty of Economic Sciences, Śniadeckich 2, 75-453 Koszalin, Poland, e-mail: grzegorz.przekota@tu.koszalin.pl, ORCID: https://orcid.org/0000-0002-9173-2658

[2] University of Rzeszów, Faculty of Economics and Finance, Ćwiklińskiej 2, 35-601 Rzeszów, Poland, e-mail: annakowal@ur.edu.pl, ORCID: https://orcid.org/0000-0003-3303-0348

[3] University of Rzeszów, Faculty of Economics and Finance, Ćwiklińskiej 2, 35-601 Rzeszów, Poland, e-mail: rpitera@ur.edu.pl, ORCID: https://orcid.org/0000-0001-9598-1240

Suggested citation: Przekota, G., Kowal-Pawul, A., & Pitera, R. (2026). The Split Payment Mechanism and Financial Liquidity of Enterprises in Section F – Construction. *Krakow Review of Economics and Management / Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie*, 2(1012), 63–80. https://doi.org/10.15678/krem.18770

ABSTRACT

Objective: The aim of the study conducted in the article is to examine whether the split payment mechanism (SPM) affects the financial liquidity of enterprises in section F – construction. It was also determined whether adjustments to liquidity ratios should be made for enterprises whose predominant activity is subject to mandatory SPM.

Research Design & Methods: The research was based on a literature review concerning VAT taxation and SPM. An analysis of industry reports was conducted to assess the impact of this mechanism on the financial liquidity of enterprises. Financial analysis tools were utilised to verify whether the implementation of split payment affects the ability of enterprises in section F – construction to settle their liabilities. The study focused on construction sector enterprises subject to mandatory SPM. Calculations were based on financial statements from 2018 and 2022, allowing a comparison of the financial liquidity situation in the construction sector both before and after the introduction of mandatory SPM. Financial ratios calculated for 2022 were

also compared before and after adjustments for restricted funds in bank accounts. Hypotheses were verified using descriptive statistics and inferential statistics tools. Due to deviations from linearity and normal distribution, tools insensitive to these behaviours were used primarily, such as the median to describe the average level, Spearman's rank correlation coefficient to describe dependencies, and the sign tests and Wilcoxon tests to examine the differences in ratio values before and after adjustment. Parametric tools for description and inference were used only as a complement to non-parametric tools.

Findings: The research results show lower values of financial liquidity ratios after adjustment for funds accumulated in the VAT account. The current ratio index values are not significantly different. This means that the introduction of SPM did not significantly affect the ability of enterprises from the construction sector to settle their liabilities on an ongoing and timely basis. Moreover, the ability to allocate funds accumulated in a separate bank account to cover public law liabilities results in a reduction in the number of days needed to repay liabilities.

Implications/Recommendations: It is recommended to adjust classical financial ratios by the value of funds accumulated in the VAT account. Making this type of exclusions contributes to a more precise calculation of individual financial liquidity ratios. This leads to more precise results and an appropriate assessment of the financial situation of the audited company.

Contribution: The research results in a new approach to the construction of financial ratios used to evaluate the company. It also shows the implications of the introduction of SPM on the functioning of enterprises in the construction sector.

Article type: original article.

Keywords: VAT, split payment mechanism, financial liquidity, section F – construction.

JEL Classification: H26, H32, M21, M48.

1. Introduction

The split payment mechanism (hereinafter: SPM) was introduced into Polish economic practice as a response to tax fraud in the area of VAT. Its primary purpose was to limit illegal practices involving disappearing taxpayers (Sarnowski & Selera, 2020). The mechanism became a form of tax risk management within enterprises, introducing safeguards against unwitting participation in carousel fraud schemes.

Initially, SPM operated on a voluntary basis, and later, from 1 November 2019, it became mandatory for 150 groups of goods and services. SPM potentially affects not only budget revenues from VAT by reducing tax fraud, but also the financial liquidity of enterprises. This results from the very essence of the functioning of this mechanism, where the payment is made by the buyer of the goods or services to the supplier's settlement account, while the remaining amount of the receivable, i.e., corresponding to the VAT value, is paid to the VAT account (Kowal, 2019). These funds are, to some extent, "blocked," and the company cannot dispose of them freely, only in the manner specified by the legislator (Nowak-Piechota, 2018).

Thus, by using SPM, suppliers of goods or services cannot disappear during transactions aimed at evading VAT and retain the tax due to the state for their own benefit (Kowal & Lichota, 2020).

Interest in the aspect of financial liquidity when using SPM also resulted from industry reports and analyses (European Commission and Deloitte, 2017; CRIDO, 2018; KPMG, 2019b), and, most notably, from the Deloitte report commissioned by the European Commission (European Commission and Deloitte, 2017).

The aim of this article is to elucidate the essence of the SPM and how it can potentially affect the financial liquidity of enterprises. The study also examines whether adjustments to financial liquidity ratios are needed for enterprises predominantly subject to mandatory SPM. The research was based on a literature review in the field of VAT taxation. The legal and tax regulations of Poland and the EU regarding this solution were analysed. Financial analysis tools were also used to verify whether the split was applied payment affects the ability of enterprises to settle liabilities from section F – construction. Business units that are covered by mandatory SPM were selected for the study. The calculations were made on the basis of financial reports from 2018 and 2022. The financial liquidity situation was compared before the introduction of mandatory SPM and after several years of its implementation. Furthermore, in 2022, the liquidity results were calculated according to traditional formulas provided in the literature and adjusted to take into account the limitation in the use of funds on the VAT sub account. In pursuing the research objectives and verifying the hypotheses set in the study, a statistical evaluation of financial ratios was carried out. This evaluation was carried out using methods of descriptive statistics and statistical inference.

Previous research on financial liquidity, taking into account SPM, was carried out on enterprises from the processing, trade and service industries (Obrzeżgiewicz, 2019), but it was not indicated whether the use of split payment requires adjustment of financial ratios. This article fills a gap in the current scientific literature on this issue. In line with the goals of the study, research hypotheses were formulated:

H1: The split payment mechanism negatively affects the financial liquidity of enterprises in section F.

H2: Classical financial liquidity ratios require adjustment for funds in the VAT account.

2. Theoretical Tax Bases and the Split Payment Mechanism

Tax theories form the foundation of tax system analysis, helping to understand and evaluate the functioning of taxes and tax solutions, their impact on the economy, the behaviour of economic entities, and their activities (Mirrlees *et al*., 2011; Raczkowski, Schneider & Węgrzyn, 2023).

The first and most famous criteria for evaluating tax system were formulated in the 18th century by A. Smith, emphasising certainty, convenience, cost-efficiency, and equity of taxation (see: Olalekan & Oyedokun, 2019). Nowadays, the design of a tax system typically considers several fundamental issues: efficiency, equity, neutrality, and flexibility (Mirrlees *et al*., 2010; OECD, 2014; Commission on Taxation and Welfare Secretariat, 2021). These concepts need to be explained in the context of SPM and its potential impact on the financial liquidity of economic entities.

Economic efficiency is one of the most frequently indicated features of an optimal tax system. When assessing whether a tax system is efficient, it is essential to go beyond just the analysis of fiscal efficiency, which focuses mainly on the performance of the tax system and the quality of individual revenue sources. One must also consider the compliance costs and administrative costs for the taxpayer, which are closely linked to so-called economic tax efficiency. Thus, tax system efficiency should be understood as the resultant of fiscal efficiency and the costs associated with tax collection, which are not always visible and simultaneously easy to determine (Kumor, 2009). The new tax solutions being introduced engage owners and employees in the finance departments in familiarising themselves with the changes in tax regulations. In Poland, tax changes are analysed for an average of 364 hours annually. Additionally, many studies have shown that tax settlement in Poland requires significantly more work than the EU average (Kowalczyk *et al*., 2020).

The literature frequently emphasises that a tax system should be designed to minimally disrupt the economic decisions of entities (Gunnarsson & Eriksson, 2017). The introduction of SPM may affect tax efficiency by reducing VAT fraud, which in turn makes the tax system more transparent and stable (Ćwiąkała-Małys, Karpińska & Piotrowska, 2018). However, additional administrative burdens and limited access to funds in the VAT account may disrupt financial decisions of enterprises and affect their financial liquidity. Therefore, it is important that tax solutions such as SPM are introduced in a way that minimises additional costs and burdens for businesses.

The concept of equity shows how to resolve conflicts between different interests, especially between the interests of the taxpayer and the state. Objective tax equity can be considered in both vertical and horizontal terms (Duclos, 2008). Horizontal equity is closely linked to the principles of equality and universality of taxation (Ooi, 2016; Szołno-Koguc, 2016). It means that entities with similar tax-paying abilities should bear similar tax burdens. Vertical equity, on the other hand, suggests that entities with greater tax-paying abilities should bear relatively higher tax burdens (Elkins, 2006). SPM, by ensuring a fairer and more transparent VAT settlement system, can contribute to increased tax equity. Enterprises that previously avoided paying taxes are compelled to comply with the regulations, which reduces unfair

competition. Conversely, the additional costs and administrative burdens associated with this solution may be more onerous for smaller enterprises, potentially leading to inequality in tax burdens (Kowal, 2019).

The theory of tax neutrality posits that taxes should be neutral in regard to economic decisions, not affecting the allocation of resources or the choices made by economic entities (Princen, 2012). In an ideal tax system, no industry or type of business activity should be "favoured" by tax regulations. Therefore, they should not influence market structure (Hasen, 2012). Of course, the principle of tax system neutrality will never be fully maintained, which is why modern economic theories already discuss relative tax neutrality (Opałka, 2011). SPM can impact tax neutrality by changing how financial resources are managed in companies within a specific sector engaged in certain activities. Limited access to VAT funds for paying current liabilities may force companies to change their liquidity management strategies, which can impact their market position (Kowal, 2019).

According to A. Wagner, the theory of tax flexibility refers to the tax system's ability to meet public expenditure requirements (see: Gomułowicz & Mączyński, 2016). The economist emphasises the importance of the tax system's ability to adapt to changing economic conditions and social needs in his works (see: Owsiak, 2017). SPM aimed at reducing the VAT gap, is an example of such flexibility. By implementing it, the state aims to better monitor invoice payments and counteract tax fraud. On the other hand, the introduced regulations and solutions may limit enterprises' flexibility in managing their finances, negatively affecting their liquidity and ability to adapt to changing economic conditions.

The discussed tax theories provide theoretical frameworks for analysing the impact of SPM on business activities. This solution has the potential to increase the transparency of the tax system, but at the same time, it causes increased administrative burdens and may pose challenges related to financial liquidity management. Therefore, finding a balance between the effectiveness of tax solutions and minimising their negative impact on business activities is crucial (Kowal-Pawul, 2022).

3. The Split Payment Mechanism and the Potential Impact on the Financial Liquidity of Enterprises

The Act of 15 December 2017, amending the VAT Act and certain other acts introduced a new tax law institution into Polish economic practice – the split payment mechanism. This act entered into force on 1 July 2018 and was initially a voluntary solution. However, this was a "seeming voluntariness," as will be explained further in this paper. SPM is one of the tools demonstrating the digitisation of VAT in Poland (Kowal-Pawul & Przekota 2021), but the only one that may significantly threaten the financial liquidity of enterprises (Kijuk, 2018).

The essence of the introduced SPM in Poland is that the payment for purchased goods or services (net value) is made by the buyer to the supplier's settlement account, while the remaining amount of the liability, corresponding to the VAT value, is paid to the VAT account (Fig. 1).

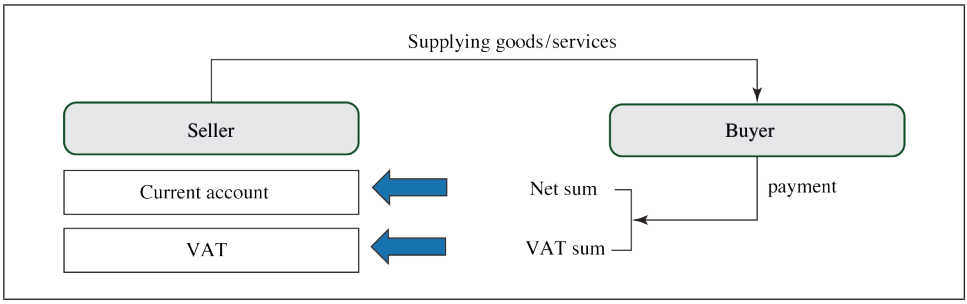

Fig. 1. SPM – Functioning Diagram
Source: own study, based on Kowal (2019).

SPM applies to B2B and B2G transactions conducted electronically. Moreover, SPM became mandatory from 1 November 2019 for fraud-prone goods and services defined in Annex 15 to the Act of 11 March 2004 on goods and services tax (VAT Act). One can also speak of the optional nature of applying the mechanism; however, this statement raises some controversies – because it is the buyer who decides whether to use the split payment institution. The method of payment does not require the payer to inform their contractor. This is known as "apparent voluntariness" for the supplier of goods or services. Furthermore, the seller receiving split payment has their funds frozen in the VAT sub-account, so even if they did not wish to use this solution, they are still "forced" to do so in order to manage the accumulated funds (Weber, 2024).

The voluntary SPM did not play a significant role in reducing tax fraud, so the Polish legislator introduced a mandatory solution for areas particularly vulnerable to VAT-related fraud (e.g., construction services). Such a solution requires the authorisation of the Council at the request of the European Commission. The introduction of mandatory SPM in Poland was made possible by obtaining Council approval in early 2019. The authorisation issued was temporary and valid until 28 February 2022 (PwC, 2019), and it was subsequently extended for another three years (KIS, 2024).

Invoices below 15,000 zloty gross, which pertain to goods and services subject to mandatory SPM, are subject to joint liability of the purchaser, applicable from the first zloty. Liability can be discharged through voluntary payment in accordance with SPM (Podatki.gov.pl, 2024). The purchaser also faces the risk of sanctions

being imposed if, despite being obligated under SPM to settle the invoice accordingly, they settle it in another manner (KPMG, 2019a).

Table 1. Voluntary versus Mandatory Application of SPM

Value of the Invoice		
Up to 15 thousand zloty (or up to the equivalent amount)	Over 15 thousand zloty (or the equivalent amount)	
Voluntary application	Goods or services from Annex 15 of the VAT Act	Other goods or services
	Mandatory application	Voluntary application

Source: own study, based on Andrzejewska (2020).

After the introduction of SPM, Polish entrepreneurs should consider the issue of financial liquidity. For suppliers receiving split payments, there is a risk of accumulating funds in the VAT account (Kopyciańska, 2017). The legislator has provided for the possibility of using these funds not only to pay the VAT amount corresponding to the invoice but also to settle other public-law obligations, such as CIT, PIT, ZUS, excise tax. Until 1 November 2019, it was not possible to pay other public and legal liabilities from the funds in the VAT account, which caused an avalanche of criticism from entrepreneurs and problems with financial liquidity, especially among entities from the SME sector (Kowal, 2019). The taxpayer can apply to the head of the tax office for consent to transfer funds from the VAT account to their settlement account, but the application may be processed within 60 days, exacerbating the issue of frozen funds (Fornalik & Jaworska, 2020).

Although there is no obligation to introduce SPM in the European Union, some countries have also decided to implement such a solution, e.g., Italy or Bulgaria (PwC, 2015; Tratkiewicz, 2017). SPM in individual countries is modified according to their legal specifics and market conditions. Comparing the Polish split payment model to other European solutions, it can be observed that it is more advanced due to:

– ubiquity – used in B2B and B2G transactions,
– automation – in member states, the manual model predominates,
– mandatory nature – it is required for fraud-prone goods and services,
– popularity – in 2020, over 53 million transactions were conducted according to the SPM (Sarnowski & Selera, 2020).

The Polish model differs from others used in EU member states, also because its mandatory application is conditioned not only by the type of goods or services but also by the invoice amount. The solution applied in Poland is much more stringent than the EU standards, especially regarding the freedom to manage funds held in the VAT subaccount (Modzelewski, 2020).

4. Research Method

The study included companies primarily engaged in activities classified under the following groups according to PKD 2007 (PKD, 2024):

– 42.11.Z – construction of roads and highways,
– 42.12.Z – construction of railways and underground railways,
– 42.13.Z – construction of bridges and tunnels.

Companies in this sector are subject to mandatory SPM. Furthermore, companies were selected that, in additional information (a component of financial statements), indicated the value of VAT funds held in a separate account. In total, 76 construction companies were included in the study, and their reports were sourced from the EMIS database.

The years analysed were 2018 and 2022. A comparison was conducted to assess the financial liquidity situation before the introduction of mandatory SPM and after several years of its implementation. The year 2022 represented a period of relative stability, despite the epidemic threat, as the economy was recovering from the pandemic. Earlier years could have distorted the analysis results due to factors such as the COVID-19 pandemic, high inflation, and limited credit availability, potentially misleading the assessment of SPM's impact on financial liquidity.

Additionally, in 2022, results regarding liquidity were compared using traditional formulas cited in the literature and adjusted to account for the restriction on using funds in the VAT subaccount. To evaluate the impact of SPM on the financial liquidity of construction companies, the Current Ratio (CR) was assessed for 2018 and 2022. Subsequently, an evaluation was conducted to determine whether the limitation on using VAT funds affects the Days Payable Outstanding (DPO) ratio. The modification of the ratio formulas considered the value of funds accumulated in the separate bank account and the value of public-law (tax) liabilities that can be covered by these funds. Detailed formulas are provided in Table 2.

Table 2. The Names of the Applied Ratios and Their Classical as Well as Adjusted Formulas

Name of the Ratio	The Construction of a Financial Ratio
CR	$\frac{Current\ assets}{Current\ liabilities}$
CR' (*adjusted CR*)	$\frac{Current\ assets - Cash\ in\ the\ VAT\ account}{Current\ liabilities - Public - law\ liabilities}$
DPO	$\frac{Current\ liabilities}{Total\ revenue} \times 360$
DPO' (*adjusted DPO*)	$\frac{Current\ liabilities - Public - law\ liabilities}{Total\ revenue} \times 360$

Notes: *Current assets* and *current liabilities* were calculated according to the scheme available in a publication by Niemiec and Skoczylas (2024).

Source: own study, based on Niemiec & Skoczylas (2024).

In fulfilling the research objectives and verifying the hypotheses, a statistical assessment of the behaviour of the CR and DPO ratios was conducted. This assessment was performed using methods of descriptive statistics and inferential statistics. In the subsequent points:

1. Descriptive statistics of the distribution of ratio values.
2. The distributions of ratio values were presented along with a normality test of the distribution.
3. The Spearman's rank correlation coefficient was used to examine the interdependence of financial ratio values, as it is insensitive to deviations from normality and the linearity of relationships.
4. Determination of differences in the distributions of ratios before and after adjustment. Given the failure to meet the normality assumption, non-parametric tests – the sign test and the Wilcoxon test – were used as the primary methods for assessing differences in distributions.
5. Descriptive statistics of the differences in ratio values before and after adjustment.

5. Results

The statistical description of the empirical data utilised basic measures of descriptive statistics (Table 3). For each financial ratio, the median was found to be smaller than the mean, indicating the presence of outliers towards higher values and a relatively strong concentration of ratios at lower values in the dataset.

Table 3. Descriptive Statistics for Analysed Financial Ratios

Ratio	Median	Mean	Std. Dev.	Min	Max	Q1	Q3
CR2018	1.76	2.44	1.64	0.55	9.99	1.40	2.84
CR2022	1.97	2.45	1.55	0.89	8.03	1.33	2.84
CR'2022	1.77	2.34	1.50	0.84	7.92	1.32	2.82
DPO2018	64.17	90.28	112.90	19.51	806.42	40.88	99.82
DPO2022	81.32	88.08	61.68	10.89	455.27	44.44	103.40
DPO'2022	67.18	76.37	58.33	7.33	396.80	32.29	95.97

Source: own study, based on the financial statements of companies.

The median values of CR were within the textbook norm range, while the mean values exceeded this norm. Using the norm range for CR as [1.3; 2.0], approximately 40% of enterprises fell within this norm, about 15% were below it, and 45% were above it. Hence, over-liquidity was more common in enterprises than liquidity issues.

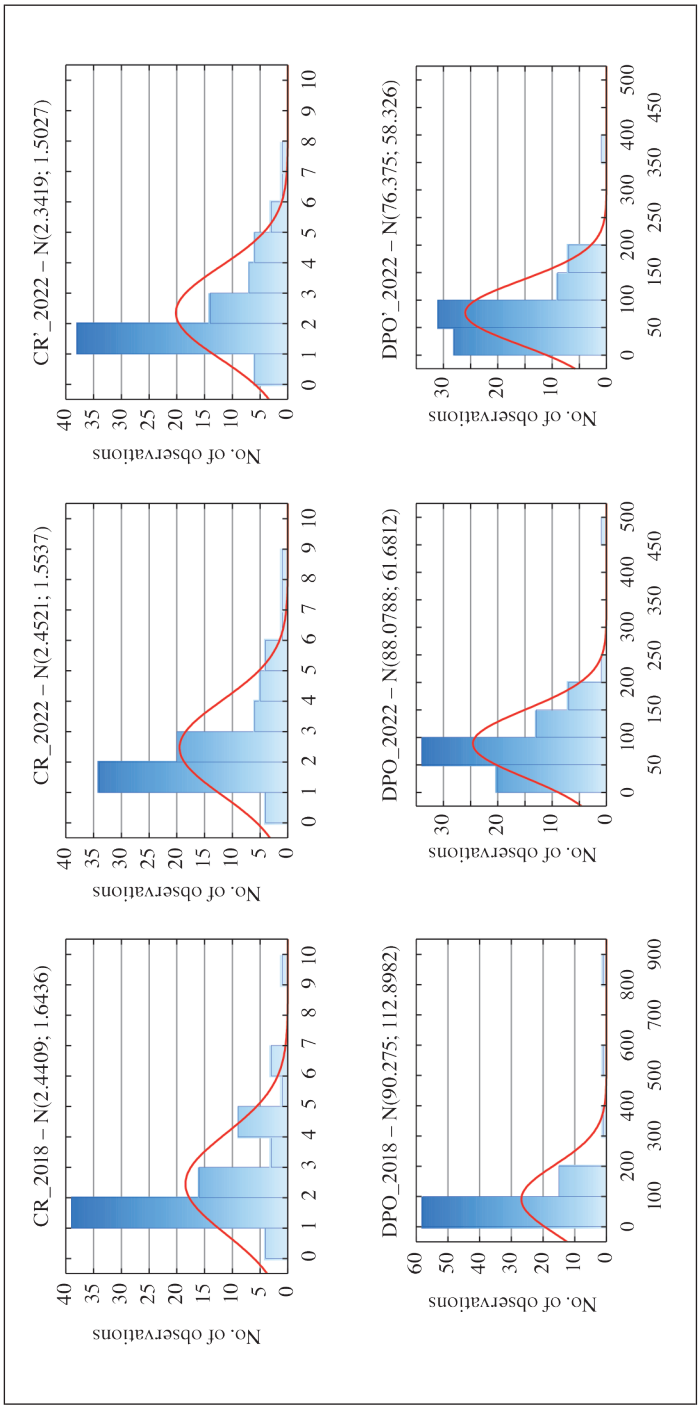

Fig. 2. The Distributions of Analysed Financial Ratios

Source: own study, based on the financial statements of companies.

Based on the presented data, there were no significant changes in liquidity levels between 2022 and 2018; however, this needs confirmation through appropriate statistical tests. Only a slight increase in CR was observed.

Regarding DPO, there was an increase in 2022 compared to 2018, as indicated by higher median, quartile 1, and quartile 3 values in 2022. Although the mean value decreased, this was due to a single outlier case. In 2018, the mean ratio was inflated by an extremely high value recorded for one enterprise, exceeding 800.

The probability distributions of the analysed ratios did not exhibit normal distributions in any case (Fig. 2).

The Kolmogorov-Smirnov and Shapiro-Wilk tests conducted in each case yielded *p*-values less than 0.05, indicating that the hypothesis of normal distribution can be rejected. Therefore, non-parametric sign tests and Wilcoxon signed-rank tests were used as primary tests to assess distribution differences, while parametric *t*-tests were considered supplementary. Spearman's rank correlation coefficient was used to evaluate dependencies, as it is insensitive to asymmetry and extreme observations.

Examining the relationship between the CR and DPO ratios in 2022 compared to their values in 2018 reveals that these are positive correlations. Higher values of the ratios in 2018 generally corresponded to higher values of the ratios in 2022 (Fig. 3).

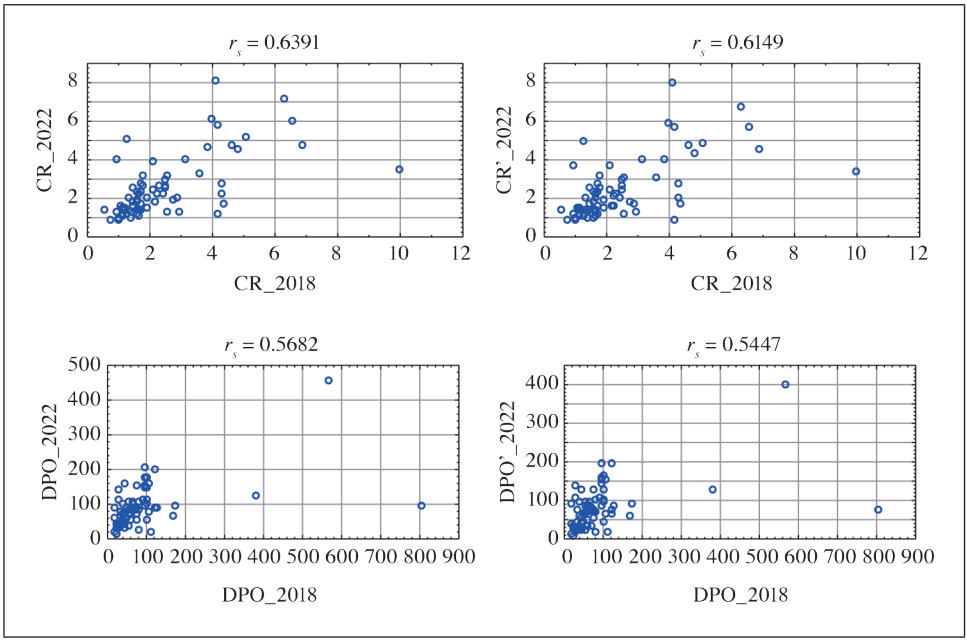

Fig. 3. The Relationships of the Analysed Financial Ratios in 2022 Compared to 2018

Source: own study, based on the financial statements of companies.

The correlations between the CR and DPO ratios coefficients in 2018 and 2022 are moderately strong on average (Spearman's rank correlation coefficient of 0.64 and 0.57, respectively). This is a result of normal economic processes occurring within enterprises, where some improve their financial situation while others experience less favourable conditions. Although the overall direction of the relationship is positive, indicating that companies in better financial health in 2018 tended to remain in better health in 2022, the correlation does not imply causation.

The adjustment of ratios CR and DPO to CR' and DPO' does not fundamentally affect the examined relationships, it only causes a slight decrease in strength.

The influence of the CR value on the DPO value is negative and moderately strong (Fig. 4). In 2018, it was approximately –0.69, while in 2022 it was –0.59. The adjustment of the ratios did not result in a significant change in the correlation coefficient; post-adjustment, it stands at –0.55.

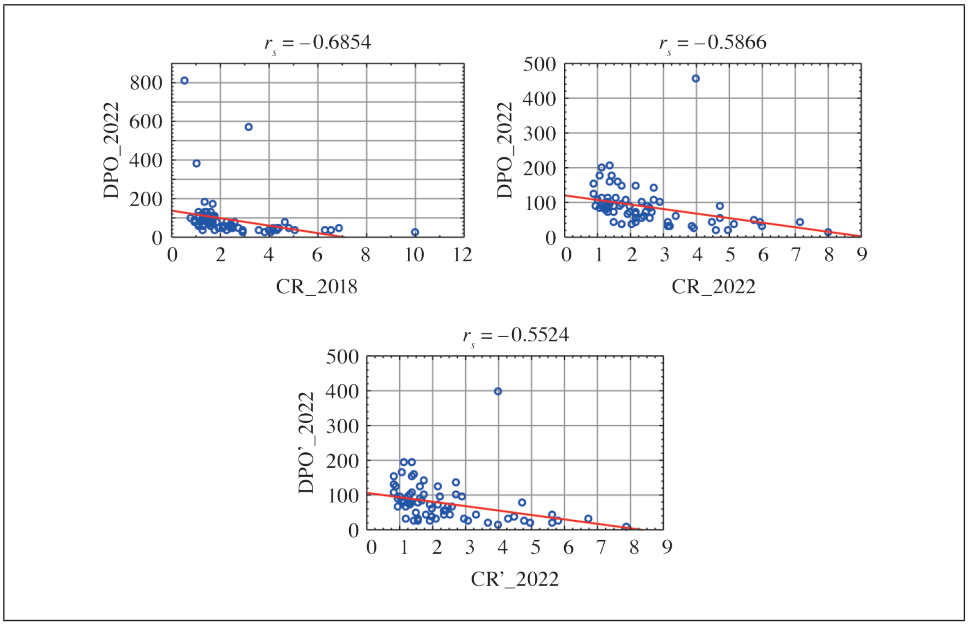

Fig. 4. The Impact of CR on DPO

Source: own study, based on the financial statements of companies.

It is quite important to note here that the adjustment of the ratios, and thus the correlations for the CR' and DPO' ratios, only slightly diminish the strength of the relationship, but the direction remains fully consistent with the original ratios. Therefore, the adjustment of the ratios does not affect the assessment of the

relationships between the ratios, indicating that they measure the same phenomenon after adjustment.

The difference between the distribution of the liquidity ratio (CR) and the distribution of DPO in 2018 compared to analogous ratios in 2022 is statistically insignificant. In each case, Shapiro-Wilk tests conducted in each case yielded a *p*-value less than 0.05, indicating no grounds for rejecting the hypothesis of no significant difference between the ratios. Therefore, there was no significant change in liquidity between 2018 and 2022. This allows for a reliable assessment of the impact of liquidity ratio adjustments.

The most important issue to resolve here is the difference between the distributions of the ratios before adjustment (CR and DPO) and after adjustment (CR' and DPO'). When examining the significance of the difference between CR and CR' ratios as well as DPO and DPO' ratios, non-parametric tests indicate a significant difference ($p < 0.05$, shown in bold in Table 4). This means that adjusting the ratios causes a significant difference in the resulting distribution.

Table 4. Tests of Significance of the Difference in Distributions of Ratios – Significance Levels

CR	CR2018	CR2022	CR'2022
CR2018	–	0.9087	0.5663
CR2022	0.5447	–	**0.0000**
CR'2022	0.6192	**0.0000**	–
DPO	DPO2018	DPO2022	DPO'2022
DPO2018	–	0.0512	0.7308
DPO2022	**0.0440**	–	**0.0000**
DPO'2022	0.6599	**0.0000**	–

Source: own study, based on the financial statements of companies.

Notes: above the diagonal – sign test, below the diagonal – Wilcoxon rank test.

Non-parametric tests measure differences from the perspective of individual enterprises; in this context, it means that the directions of ratio changes after adjustment across all enterprises are directionally consistent and statistically significant. The adjustment of the CR and DPO ratios results in decreases in the values of these ratios (Fig. 5, Table 5).

Post-adjustment, the CR ratio is found to be on average 0.11 lower for the surveyed companies, with a median decrease of 0.06 in this ratio's value. Generally, for the vast majority of companies (75%), the adjustment in liquidity ratios fell within the range of –0.15 to 0, while for 25% of companies, the downward adjustment exceeded 0.15. Despite the decrease in the CR ratio, the adjustment

also led to a reduction in DPO. The average decrease in this ratio was 11.70, with a median decrease of 9.87. Generally, adjusting ratios for funds accumulated in VAT accounts and public-law obligations leads to simultaneous decreases in liquidity ratios (including CR) and decreases in DPO.

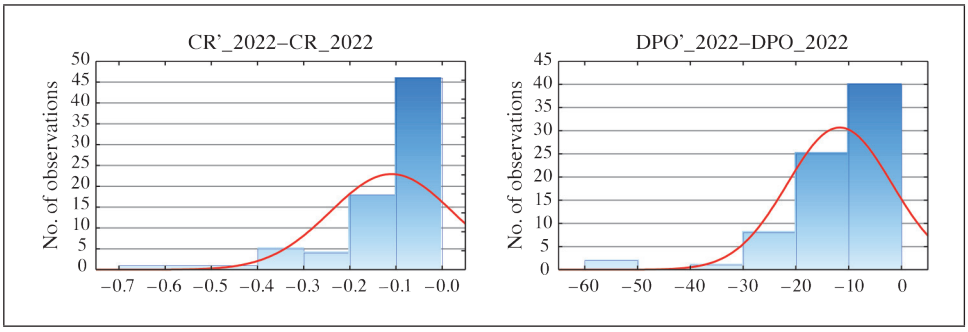

Fig. 5. Distribution of the Difference in Ratio Values after Adjustment

Source: own study, based on the financial statements of companies.

Table 5. Descriptive Statistics of the Adjustment for the CR and DPO Ratios

Variable	Mean	Std. Dev.	Median	Min	Max	Q1	Q3
CR'2022–CR2022	–0.11	0.13	–0.06	–0.65	0.00	–0.15	–0.02
DPO'2022–DPO2022	–11.70	9.88	–9.87	–58.47	0.00	–15.50	–4.98

Source: own study, based on the financial statements of companies.

It is worth noting that the primary advantage of applying corrections to liquidity ratios (including CR) is to adjust their values to a level that corresponds to the actual ability to settle current obligations, even though the difference in the CR ratio values before and after correction was not significant. Another advantage of the correction is to adjust DPO, which in its original form overstates the average time to settle business obligations, which is unfavourable in assessing a company. Generally, applying corrections organises and makes the financial ratios of the enterprise more realistic.

6. Conclusions

The study introduces a new perspective on analysing the financial liquidity of construction companies in the context of the introduction of SPM. As a result of the analysis, it was found that the introduction of SPM did not cause significant changes in the liquidity level between the years examined, which was confirmed by appropriate statistical tests. However, it was noticed that the correction of liquidity ratios, such as CR and DPO, had a significant impact on the distribution of the

values of these ratios. This correction adjusts the values of ratios to the actual ability to settle current liabilities, which is crucial in the financial assessment of enterprises. Moreover, the conducted research confirmed that modifying the ratios does not significantly change their average values, but affects their distributions. The correction of ratios therefore allows for a more reliable assessment of the financial situation of construction companies and their ability to manage liquidity in the long term. Therefore, hypothesis H1 is not fully confirmed, the ratios are not significantly different between 2018 and 2022.

Although the study results do not allow for definitive confirmation of the hypothesis, their significance in economic practice is substantial. The obtained results are particularly important for economic practice, especially in the context of assessing the creditworthiness and financial condition of construction companies. Adjusting liquidity ratios to the applicable regulations enables more accurate monitoring of the financial situation and better liquidity risk management in the construction sector. They suggest that despite the lack of significant changes in the level of financial liquidity, adjusting the ratios to new regulatory conditions represents a step toward more precise assessments of the financial capacity of construction companies, which may have significant implications for financial decision-making.

Despite the small differences in the level of financial liquidity resulting from the introduction of SPM, it should be considered justified to make adjustments in the calculation of financial ratios by the amount of split payment. Generally, this means that hypothesis H2 is true. There are situations in which failure to make such an adjustment may result in an overstatement of, for example, the current liquidity ratio, which may translate into an incorrect assessment of the overall financial situation of the audited company. The consequences of this can be manifold. From temporary disruptions in repayment of liabilities, even to the insolvency of the company or its bankruptcy. Therefore, adjusting financial liquidity ratios by the amount of funds accumulated in the VAT account will limit the receipt of incorrect results. It may also contribute to a more accurate assessment of the company by its owners, managers, contractors and potential investors.

Authors' Contribution

The authors' individual contribution is as follows: Grzegorz Przekota – methodological concept of the study, analyses and calculations, interpretation of the results, critical revision of the manuscript, supervision of its overall structure; Anna Kowal-Pawul – research concept, literature review, co-authorship of the empirical part of the study, including the concept of adjusted indicators and the interpretation of the results; Rafał Pitera – data collection, calculation of indicators for the analysed enterprises, implementation of adjustments based on the authors' assumptions, contribution to the manuscript editing.

Conflict of Interest

The authors declare no conflict of interest.

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